EXPLORATION OF ETHNOMEDICINAL PLANTS ALONG GANGA RIVER

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EXPLORATION OF ETHNOMEDICINAL PLANTS ALONG GANGA RIVER



Exploration of Ethnomedicinal Plants Along Ganga River

Sponsored by

National Mission for Clean Ganga (NMCG),
Department of Water Resources, River Development & Ganga Rejuvenation,
Ministry of Jal Shakti, New Delhi

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in coordination with
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Disclaimer

The written content of this book is merely a compilation and documentation of ethnomedicinal knowledge of native people from the Ganga River watershed between Gomukh and Gangasagar for the project 'Scientific Exploration of Floral Diversity near the Ganga River Banks for Ethnobotanical purposes along with their Conservation and Economic Development of the Region Via Skill Development Programs' under the National Mission for Clean Ganga (NMCG), Ministry of Jal Shakti, Government of India. The rightful ownership of the Intellectual Property Rights for such knowledge lies with the native people only. No part of this publication or the information contained herein may be re-sold, hired out, circulated, reproduced, adapted, abridged, translated, stored in a retrieval system, computer system, photographic or other systems or transmitted in any form or by any means, electronic mechanical, by photocopying, recording or otherwise, without prior written permission from the publisher. Application for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the publisher. The exception to this is when a reasonable part of the text is quoted for a book review, abstracting, etc.

ABOUT THE EDITOR



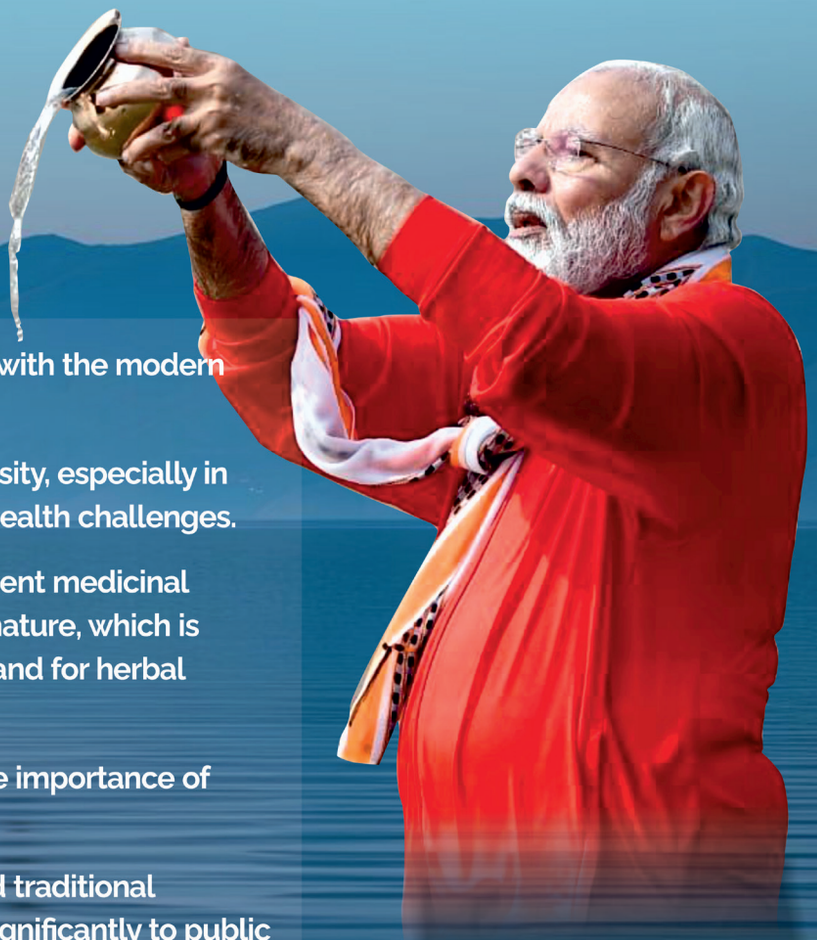
Dr. Acharya Balkrishna, Co-founder of Patanjali Organic Research Institute, is a highly ascetic entrepreneur with a diverse personality who is a specialist in Yoga, Ayurveda, Sanskrit language, Indian sacred books, and the Vedas. Dr. Balkrishna has become a significant source of inspiration for Traditional Medicinal Practitioners and a globally recognized celebrity after dedicating his life to the resurrection of ancient healing and living practices. His maverick leadership as Co-Founder & Managing Director of Patanjali Ayurved Limited, along with overseeing Patanjali Food and Herbal Park and Divya Pharmacy, has propelled Ayurveda into a global business phenomenon with a massive following. Additionally, he has been decorated with prestigious awards such'Ayurveda Expert, 'Manav Ratan, 'Bharat Gaurav, 'Indian of the Year, 'Ten Versatile and Dynamic Young Men of India, 'Bheeshma Pusaka, 'Lokmanya Tilak, and 'Transformational Business Leader' for his exceptional knowledge, passion, and service to mankind. According to a study published by Stanford University in the USA and Elsevier in Europe, Dr. Balkrishna has been recognized among the top 2% of scientists worldwide for his research on Ayurveda and Yoga.

With his early age passion for plants, he has become the most renowned & respected herbal specialist for health and nutrition. For the research of novel herbal medication formulations, he explored four rare plants: 'Sanjeevani', 'Somlata', 'Swarnakshiri', 'Swarnadraka', and 'Astavavarga plants'. He has taken many initiatives for Biodiversity conservation, presently working for the establishment of Patanjali Herbal Garden & herbarium, working on the compilation of a unique multivoluminous project i.e., **'World Herbal Encyclopaedia'**, containing the descriptions of ~50,000 medicinal plant species with the largest collection of plant paintings and drawings. This is being done to strengthen traditional medicine systems of the world. Additionally, Dr. Balkrishna has made significant contributions to the socio-economic development of tribal communities and the upliftment of rural communities with FPOs, CLFs, and SHGs. Furthermore, his endeavors have been directed towards exploring and conserving floral diversity, phytochemical and insilico analysis, investigating soil geochemistry, understanding complex plant-microbe relationships, and monitoring water quality from Gomukh to Gangasagar.

He has published more than **400 research articles** in national and international journals received around 20 patents and authored more than **200 books** on Yoga, Ayurveda, Agriculture, Herbal Medicine, and Information Technology and edited more than **40 unpublished ancient Ayurveda manuscripts**. With the vision of ensuring universal health for the last two decades, more than **1.5 million patients** with several persistent, chronic, and non-communicable diseases have been effectively treated. He established Patanjali Ayurved College and the University of Patanjali with the humanitarian goal of assisting youngsters in achieving their goals and serving the country. Additionally, he has been involved in various government and non-government initiatives. He is also a key proponent of agricultural transformation through organic practices, working to boost agricultural productivity, increase farmer income, and ensure equitable access to a safe, affordable, and nutritious diet year-round. Apart from this, Dr. Balkrishna is actively participating in driving agricultural transformation through the 'Patanjali Farmer Samridhi Programme' by well-trained staff and around one lakh trainers. His generous personality is also reflected through his actions like helping the nation with emergency needs like post-disaster needs assessment, providing free shelter, food, and education to orphan children, and free OPD services at Patanjali Yogpeeth. With his humanitarian attitude, Dr. Balkrishna continues his phenomenal journey of making world records, uplifting mankind through medicine & lifestyle improvement, reviving sustainable agriculture, and preserving nature's gifts in the form of literature and a sustainable living approach.

NAMAMI GANGE

Vision of Honourable Prime Minister Shri Narendra Modi



- Medicinal plants can help in dealing with the modern day lifestyle.
- We need to harness our rich biodiversity, especially in medicinal plants, to address global health challenges.
- The world is now embracing our ancient medicinal practices. People are going back to nature, which is reflected in the growing global demand for herbal products.
- Our nation has always recognized the importance of medicinal plants.
- The potential of medicinal plants and traditional healthcare systems can contribute significantly to public health.
- Our goal is to provide affordable healthcare solutions by promoting traditional medicines including the use of medicinal plants.

Narendra Modi's address at the inauguration of the first National Arogya Fair, 2017
Narendra Modi's speech at the inauguration of the National Ayurveda Summit, 2019
Narendra Modi's address at the inauguration of the AYUSH Wellness Centre, 2016
Narendra Modi's address at the inauguration of the National Institute of Ayurveda, 2020
Narendra Modi's address at the International Conference on Integrative Medicine for Chronic Diseases, 2017
Narendra Modi's address at the Indian Science Congress, 2019

Vision of Union Minister for Jal Shakti

Shri Chandrakant Raghunath Patil



- We will understand the importance of water, conserve it and ensure rich water resources for future generations.
- Conservation and enhancement of water resources of our country is a sacred goal. I will work with my dedication and devotion to achieve this.
- Proper access to water is a strong step towards women's empowerment.
- Jal Shakti is Nari Shakti, as women are the most affected by water scarcity due to their household responsibilities in rural India.

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https://www.indiatvnews.com/gujarat/will-transform-jal-shakti-into-rashtra-shakti-cabinet-jal-shakti-minister-c-r-paatil-after-portfolio-appointment-pm-modi-2024-06-10-936272

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Uttar Pradesh Forest Department & Biodiversity Board

Bihar Forest Department & Biodiversity Board

Jharkhand Forest Department & Biodiversity Board

West Bengal Forest Department & Biodiversity Board

Ganga Task Force (GTF)

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राष्ट्रीय स्वच्छ गंगा मिशन
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NATIONAL MISSION FOR CLEAN GANGA

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन,
नदी विकास और गंगा संरक्षण विभाग
GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI
DEPARTMENT OF WATER RESOURCES,
RIVER DEVELOPMENT & GANGA REJUVENATION



MESSAGE

The Ganga, a river deeply revered in our culture, is both a source of spiritual inspiration and home to diverse ecosystems, including riparian buffers along its banks that connect terrestrial and aquatic systems. These buffers play a crucial role in supporting amphibious life, stabilizing the riverbanks, and maintaining ecosystem services. Therefore, under the "Aviral Ganga" approach for biodiversity conservation and "Arth Ganga" for enhancing livelihoods, a project on floral diversity has been initiated through Namami Gange Mission – II, in collaboration with Patanjali Organic Research Institute (PORI), Haridwar, Uttarakhand.

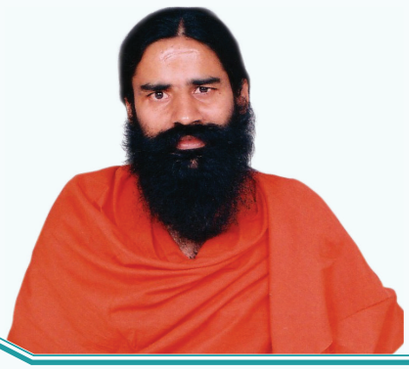
The project "*Scientific Exploration of Floral Diversity Near the Ganga Riverbanks for Ethnobotanical Purposes along with their Conservation and Economic Development of the Region via Skill Development Programs*" aims to provide valuable scientific insights into the region's ethnobotanical wealth while promoting sustainable conservation practices. The 18-month study, conducted from Gaumukh to Gangasagar along the Ganga banks, reveals the floral profile, ethno medicinal aspects, applications, livelihood perspectives, and the role of biodiversity in ecosystem resilience, highlighting the symbiotic relationship between conservation and socio-economic development. Findings presented through publications, including project reports, monographs, exploration of ethno medicinal plants, and plant wealth along river Ganga India, will benefit stakeholders, including local communities' well-being.

It gives me immense pleasure to extend my appreciation to the entire team for successfully executing the project, which advances our understanding of the unique floral diversity along the Ganga and its role in ethnobotanical purposes, conservation, and integrating science with local knowledge. The project's focus on environmental stewardship and skill enhancement for sustainable livelihoods is commendable.

This excellent work documenting the floral diversity along the banks may pave the way for the rejuvenation of the Ganga and set a precedent for biodiversity conservation and socio-economic improvement, potentially benefiting other regions of India as well.

(Rajeev Kumar Mital)

FOREWORD



The Ganga, revered as a goddess in Indian culture, has nourished not only the physical landscape but also the spiritual and medicinal heritage of our land. For many centuries, the banks of this holy river have been home to numerous plants with healing properties. These plants, nurtured by the pure waters of the Ganga, have served as the cornerstone of traditional medicine systems such as Ayurveda, guiding us towards holistic health and well-being.

The significance of ethnomedicinal plants extends beyond their physical properties; they symbolise the symbiotic relationship between humanity and nature. Our ancestors, through careful observation and experience, discovered the therapeutic potential of these plants and used them in everyday life and healthcare. This invaluable heritage, passed down through generations, deserves our reverence and continued exploration. It is with profound joy and great admiration that I pen these words for this remarkable work, "Exploration of Ethnomedicinal Plants Along Ganga River." Few pursuits in life are as enriching and enlightening as the quest to understand our natural world, especially its healing treasures.

In an era where the quest for sustainable and holistic health solutions is more pressing than ever, this book stands as a guiding light of knowledge. It encourages us to look back at our roots, embrace the richness of traditional medicine, and integrate it with modern healthcare approaches. The findings from this exploration are not just theoretical but also offer practical benefits for improving health outcomes, preserving biodiversity, and advocating environmental stewardship.

This book, "**Exploration of Ethnomedicinal Plants Along Ganga River**" delves into the diverse medicinal plants along the Ganga River, **documented 114 plants used by 147 respondents across 39 villages in states i.e. Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal**. It includes detailed botanical descriptions, preparation methods, and administration techniques. This research involved over 40 scientists and aimed to educate locals about preserving the Ganga's biodiversity. Top of FormBottom of Form.

I extend my heartfelt appreciation to Dr. Acharya Balkrishna and his devoted team of expert scientists for their unwavering commitment. Their work highlights the enduring importance of ethnomedicinal plants and their contribution to promoting a balanced and harmonious life.

May this book serves as a resource for researchers, practitioners, and nature enthusiasts alike to continue the exploration, preservation, and utilisation of our ethnomedicinal heritage. Let us walk this path with respect, curiosity, and a commitment to nurturing the natural world that so generously sustains us.

With blessings and best wishes,

-Swami Ramdev

PREFACE

The Ganga River, one of the most significant rivers in the northern Indian subcontinent, has long been venerated as a sacred river in Hinduism. Flowing through one of the world's most fertile and densely populated regions, it originates in the Himalayas and empties into the Bay of Bengal, sustaining the lives of hundreds of millions within its basin. The river's five principal headstreams—Bhagirathi, Alaknanda, Mandakini, Dhauliganga, and Pindar—arise in the mountainous regions of Uttarakhand. Among these, the Bhagirathi and Alaknanda are the two primary headstreams, with Bhagirathi emerging from a subglacial meltwater cave at approximately 3,000 meters above sea level, near the Gangotri Glacier, and Alaknanda originating around 50 kilometers north of the Nanda Devi peak. However, Gomukh, located around 21 km southeast of Gangotri, is said to be the source of the Ganga. At Devaprayag, the Alaknanda and Bhagirathi rivers merge to form the mainstream.

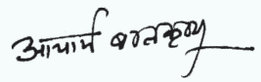
The Ganga River is renowned for its diverse ecological significance, encompassing freshwater river systems, forests, and wetlands. Recognizing its immense natural value, the Indian government has implemented various projects, beneficiary plans, and training programs aimed at safeguarding the river's interests. The National Mission for Clean Ganga (NMCG), operating under the Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti, serves as the central authority responsible for the comprehensive planning and coordination of Ganga development initiatives. The Ministry's plans and projects are meticulously designed with the river's status in mind, addressing crucial institutional and programmatic gaps. The NMCG oversees multiple initiatives promoting the Ganga's social, economic, biological, and spiritual well-being. In a similar vein, the Patanjali Organic Research Institute has been appointed to contribute to the Ganga River's revitalization and sustainable development. The efforts undertaken by the Patanjali Organic Research Institute to collect and document the traditional knowledge of the indigenous communities along the Ganga—from Gomukh to Gangasagar—culminated in the creation of this book.

The study is a focused effort to explore and document this rich botanical heritage. By thoroughly collecting and recording the wisdom of local communities, the Institute has not only safeguarded invaluable cultural heritage but also highlighted the intricate relationship between these communities and their natural environment. Additionally, this book details the river's regions, the indigenous peoples, their occupations, demographics, and the medicinal uses of local herbs. It includes insights into plant-based treatments, methods of administration, and

features photographs of the local respondents and the plants discussed. It includes detailed accounts of how these communities utilize plants for medicinal purposes, supported by a list of responses and the methods of plant-based treatment they employ. The scientific team engaged directly with these communities to gather insights into their ethnomedicinal practices, which is also documented in the form of photographs of the exploration study.

I express my deepest gratitude to Param Pujya Swami Ramdev Ji for his unwavering leadership and support throughout this endeavour, as well as for his invaluable guidance in every aspect of our work. I express my gratitude to the Ministry of Jal Shakti for their invaluable recommendations and guidance. My best wishes to the dedicated and highly skilled experts, who have gathered data and conducted extensive research on the diverse botanical heritage of the Ganga River basin. I would especially want to express my gratitude to the district and sub-district administrations, as well as the national and state biodiversity boards, of the Ganga descending states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal) for their cooperation and support throughout our team's field visits.

I believe that this book will help researchers, aficionados for medicinal plants, and policymakers learn about the traditional therapeutic methods used by the Ganga River region's indigenous people. The goal is to build a comprehensive database that offers in-depth information about ethnomedical plants, which the native people have long used to treat illnesses and maintain their traditional knowledge.



-Acharya Balkrishna

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ABOUT THE BOOK

Usually, knowledge about medicinal plants is limited to a certain area that requires further research and exploration. Global plant lovers possess intimate knowledge of the behaviors, habitats, and physical characteristics of many plants, and they use plants and plant parts to assess both documented and undocumented traditional practices. Even though the contemporary medical system is now possible because of human advancement, individuals in rural areas of the world still rely on plants and plant-based remedies. Many ancient practitioners employ native medicinal plants in their therapeutic practices across India and beyond. The medical benefits of the plants are still known to the people living in the Ganga River watershed.

The Ganga River is part of a wider river system that flows from the western Himalaya to the Bay of Bengal. This river system's year-round water supply is essential to the Indian economy and civilization. This river has a great deal of historical, cultural, and religious significance and is the thirty-first longest river in the world. The two main tributaries *i.e.* the Bhagirathi and the Alaknanda rise from the glaciers in western Himalaya and unite at Devprayag, from where the name Ganga originated. Before entering the plains, this river travels over hills and reaches the Haridwar. It then flows through the plains to reach West Bengal, where it again divides into two streams: the left stream flows eastward to Bangladesh, while the right stream, known as Hooghly, flows southward and enters the Bay of Bengal with the name of Bhagirathi.

The Ganga River has enormous natural significance with diverse biological health including forests, wetlands, freshwater river systems, etc. Alpine meadows predominate at the Ganga's source, while estuaries dominate at the river's terminus. In between the alpine meadows and estuaries, several types of forests and vegetation are seen. The Ganga River watershed is referred to as "a treasure house of drugs" because of the tremendous natural diversity and variety of medicinal plants available in the river watershed.

The Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti, a nodal ministry responsible for the overall policy planning and coordination of Ganga development programs under the name the National Mission for Clean Ganga (NMCG). Programs and schemes of the Ministry are designed to fill important gaps in institutions and programs while considering the Ganga River situation. The primary means of doing this is through financial assistance to other Central Ministries, State Governments, and, to a lesser extent, voluntary organizations. The Ministry augments its endeavors by executing an array of developmental projects in strategic domains via plans that are specifically designed. These programs, which support the Ganga River's social, economic, biological, and spiritual growth, are overseen by the NMCG.

The ministry only awards research projects to respectable establishments, universities, UGC/AICTE/CSIR-affiliated institutes, and State/UT-recommended NGOs that qualify for funds for study on Ganga development. In addition to these groups, the ministry worked with the Patanjali Organic Research Institute (PORI) on an ethnomedicinal evaluation for the first time, covering the Ganga watershed from Gomukh to Gangasagar.

In this scenario, the current book entitled *Exploration of Ethnomedicinal Plants Along Ganga River* provides concrete information about the ethnomedicinal plants that are utilized by the residents around the Ganga River for the treatment of their local ailments. It provides an in-depth approach to the study along with information on the states that were surveyed, including Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal. Most of the part of the study is based on a questionnaire-based survey.

In the book, 147 respondents from 39 villages/localities of 18 districts along with their occupations, educational status, age, and sex from all around the Ganga River are addressed. All the respondents discussed 114 plants that are traditionally used by the natives. These plants have been collected, identified, and examined by their botanical description, parts used with their modes of preparation and administration methods along with quantitative analysis.

It includes five appendixes. Appendix I contains detailed documentation of the identified respondents from the study areas; Appendix II contains the photographs of the respondents; Appendix III contains the details of all 114 identified plants and their preparation/administration methods; Appendix IV contains the photographs of the ethnomedicinal plants; and Appendix V contains a validated and authenticated questionnaire. There is a separate section named 'Attachment of Documents' that contains all the information acquired from the questionnaire. This section has information about respondents and their knowledge of native vegetation. In addition to this, videos from the survey period have been posted to a YouTube channel, to which QR codes have been appended in a subsequent section. Finally, a summary of a dashboard created specifically for the study has been provided.

Our goal is to develop and promote knowledge among the natives around the Ganga River. Over 40 scientists and researchers with specialized knowledge in this area participated in the survey, while over 20 scientists helped with the project's documentation. The local administration level, which authorized and provided permission to visit for the local survey, finished the project's whole work. During this period, scientists from a variety of disciplines lectured local people through awareness campaigns on the value of the Ganga, plants, forest, and other natural resources for the preservation of biodiversity and the cleanliness of the Ganga. The information was gathered and recorded in the form of a book based on the aforementioned activities.

Hence, this book will be useful to scientists, researchers, research scholars, medicine men, and medical practitioners as well as to all those who are interested in gaining knowledge about medicinal plants around the Ganga River watershed. Besides, it will also be useful to the government and non-government organizations for making policies for the development of Ganga as well as for the conservation and cataloging of medicinal plants.

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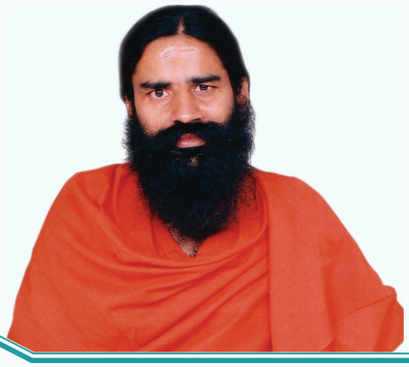
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FOREWORD



The Ganga, revered as a goddess in Indian culture, has nourished not only the physical landscape but also the spiritual and medicinal heritage of our land. For many centuries, the banks of this holy river have been home to numerous plants with healing properties. These plants, nurtured by the pure waters of the Ganga, have served as the cornerstone of traditional medicine systems such as Ayurveda, guiding us towards holistic health and well-being.

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This book, "**Exploration of Ethnomedicinal Plants Along Ganga River**" delves into the diverse medicinal plants along the Ganga River, **documented 114 plants used by 147 respondents across 39 villages in states i.e. Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal**. It includes detailed botanical descriptions, preparation methods, and administration techniques. This research involved over 40 scientists and aimed to educate locals about preserving the Ganga's biodiversity. Top of FormBottom of Form.

I extend my heartfelt appreciation to Dr. Acharya Balkrishna and his devoted team of expert scientists for their unwavering commitment. Their work highlights the enduring importance of ethnomedicinal plants and their contribution to promoting a balanced and harmonious life.

May this book serves as a resource for researchers, practitioners, and nature enthusiasts alike to continue the exploration, preservation, and utilisation of our ethnomedicinal heritage. Let us walk this path with respect, curiosity, and a commitment to nurturing the natural world that so generously sustains us.

With blessings and best wishes,

-Swami Ramdev

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ABOUT THE BOOK

Usually, knowledge about medicinal plants is limited to a certain area that requires further research and exploration. Global plant lovers possess intimate knowledge of the behaviors, habitats, and physical characteristics of many plants, and they use plants and plant parts to assess both documented and undocumented traditional practices. Even though the contemporary medical system is now possible because of human advancement, individuals in rural areas of the world still rely on plants and plant-based remedies. Many ancient practitioners employ native medicinal plants in their therapeutic practices across India and beyond. The medical benefits of the plants are still known to the people living in the Ganga River watershed.

The Ganga River is part of a wider river system that flows from the western Himalaya to the Bay of Bengal. This river system's year-round water supply is essential to the Indian economy and civilization. This river has a great deal of historical, cultural, and religious significance and is the thirty-first longest river in the world. The two main tributaries *i.e.* the Bhagirathi and the Alaknanda rise from the glaciers in western Himalaya and unite at Devprayag, from where the name Ganga originated. Before entering the plains, this river travels over hills and reaches the Haridwar. It then flows through the plains to reach West Bengal, where it again divides into two streams: the left stream flows eastward to Bangladesh, while the right stream, known as Hooghly, flows southward and enters the Bay of Bengal with the name of Bhagirathi.

The Ganga River has enormous natural significance with diverse biological health including forests, wetlands, freshwater river systems, etc. Alpine meadows predominate at the Ganga's source, while estuaries dominate at the river's terminus. In between the alpine meadows and estuaries, several types of forests and vegetation are seen. The Ganga River watershed is referred to as "a treasure house of drugs" because of the tremendous natural diversity and variety of medicinal plants available in the river watershed.

The Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti, a nodal ministry responsible for the overall policy planning and coordination of Ganga development programs under the name the National Mission for Clean Ganga (NMCG). Programs and schemes of the Ministry are designed to fill important gaps in institutions and programs while considering the Ganga River situation. The primary means of doing this is through financial assistance to other Central Ministries, State Governments, and, to a lesser extent, voluntary organizations. The Ministry augments its endeavors by executing an array of developmental projects in strategic domains via plans that are specifically designed. These programs, which support the Ganga River's social, economic, biological, and spiritual growth, are overseen by the NMCG.

The ministry only awards research projects to respectable establishments, universities, UGC/AICTE/CSIR-affiliated institutes, and State/UT-recommended NGOs that qualify for funds for study on Ganga development. In addition to these groups, the ministry worked with the Patanjali Organic Research Institute (PORI) on an ethnomedicinal evaluation for the first time, covering the Ganga watershed from Gomukh to Gangasagar.

In this scenario, the current book entitled *Exploration of Ethnomedicinal Plants Along Ganga River* provides concrete information about the ethnomedicinal plants that are utilized by the residents around the Ganga River for the treatment of their local ailments. It provides an in-depth approach to the study along with information on the states that were surveyed, including Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal. Most of the part of the study is based on a questionnaire-based survey.

In the book, 147 respondents from 39 villages/localities of 18 districts along with their occupations, educational status, age, and sex from all around the Ganga River are addressed. All the respondents discussed 114 plants that are traditionally used by the natives. These plants have been collected, identified, and examined by their botanical description, parts used with their modes of preparation and administration methods along with quantitative analysis.

It includes five appendixes. Appendix I contains detailed documentation of the identified respondents from the study areas; Appendix II contains the photographs of the respondents; Appendix III contains the details of all 114 identified plants and their preparation/administration methods; Appendix IV contains the photographs of the ethnomedicinal plants; and Appendix V contains a validated and authenticated questionnaire. There is a separate section named 'Attachment of Documents' that contains all the information acquired from the questionnaire. This section has information about respondents and their knowledge of native vegetation. In addition to this, videos from the survey period have been posted to a YouTube channel, to which QR codes have been appended in a subsequent section. Finally, a summary of a dashboard created specifically for the study has been provided.

Our goal is to develop and promote knowledge among the natives around the Ganga River. Over 40 scientists and researchers with specialized knowledge in this area participated in the survey, while over 20 scientists helped with the project's documentation. The local administration level, which authorized and provided permission to visit for the local survey, finished the project's whole work. During this period, scientists from a variety of disciplines lectured local people through awareness campaigns on the value of the Ganga, plants, forest, and other natural resources for the preservation of biodiversity and the cleanliness of the Ganga. The information was gathered and recorded in the form of a book based on the aforementioned activities.

Hence, this book will be useful to scientists, researchers, research scholars, medicine men, and medical practitioners as well as to all those who are interested in gaining knowledge about medicinal plants around the Ganga River watershed. Besides, it will also be useful to the government and non-government organizations for making policies for the development of Ganga as well as for the conservation and cataloging of medicinal plants.



EXECUTIVE SUMMARY

Plants study is crucial to human life since humans have used them for food, fuel, medicine, oils, and other uses since the beginning of time. More investigation and study are still required in this field because documented knowledge of medicinal plants is usually lacking. The World Health Organization believes that traditional medical systems are valuable and should be included in any strategy to give universal access to healthcare. Human development has made the modern medical system feasible, yet people in remote parts of the world still rely on plants and plant-based treatments. The residents of the Ganga River watershed are still aware of the therapeutic advantages of the medicinal plants. Thus, this book presented a broad overview of the traditional medicinal practices followed by the residents of the Ganga River watershed.

The Ganga River is a significant water source and a component of a larger river system that runs from the western Himalayas to the Bay of Bengal. The year-round availability of water in this river system is vital to the Indian economy and civilization. In India, the Ganga alone supplies 25% of the country's water resources. Approximately 300 million people worldwide, primarily in India and Bangladesh, depend on the Ganga River for their survival. With a basin that spans 861,404 km^2, this river is the thirty-first longest river in the world. The basin is the most inhabited area on Earth, with an average population density of 520 $people.km^{-2}$ and a wealth of historical, cultural, and religious significance (Fig. 1).

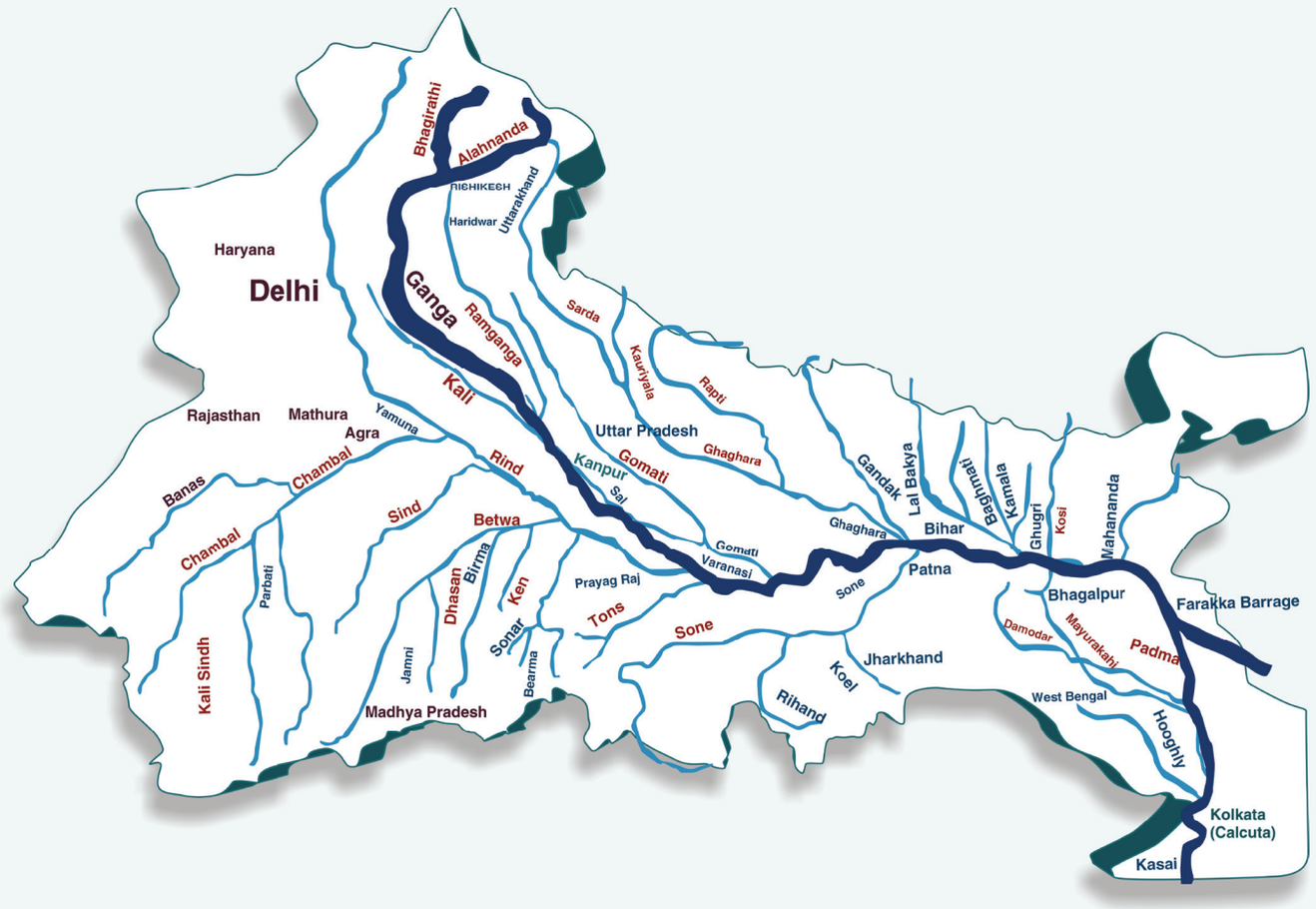


Fig. 1 The Ganga basin

The primary tributaries of the Ganga are the Bhagirathi, which originates from the Gomukh at Gangotri Glacier, and the Alaknanda, which comes from the glaciers of Satopanth and Bhagirath-Kharak. The Ganga name originates at Devprayag, where both tributaries converge. It flows through the hills up to Haridwar before entering the plains. From this point on, the river runs south across the plains of Uttar Pradesh, Bihar, Jharkhand, and West Bengal. It divides into two streams about 40 km from Farakka in West Bengal. The left stream flows eastward to Bangladesh, while the right stream, called Hooghly, continues southward and becomes Bhagirathi. It passes west and southwest of Kolkata before entering the Bay of Bengal (Fig. 2).

Beyond all other rivers on the earth, the Ganga holds immense spiritual and religious significance. The Ganga plays an important role in human civilization, especially in Hinduism. It is known as the cradle of human civilization and the lifeline of India. The Ganga River is very significant over the entirety of its course. Ganga is extremely important



Fig. 2 The Ganga River

in terms of culture, spirituality, economy, and nature. On major Hindu occasions like Kumbh Mela, Kartik Purnima, Makar Sakranti, Ganga Dussehra, Chath Puja, etc., millions of people congregate along the river in a few selected places to worship and dip in the waters (Fig. 3).

The Ganga River has enormous natural significance. The forests, wetlands, freshwater river systems, and coastal regions that make up the Ganga basin are home to a diverse range of biological wealth. The Ganga River's surrounding forest ranges from alpine meadows in its source regions to coniferous, mixed-oak, pine, scrub-and-bushes, monsoon deciduous, and mangrove forests. The source areas known as alpine meadows are covered in snow from October



Fig. 3 The spiritual occasions in the Ganga

to March and are found above 2800 m. Below this elevation, dense coniferous forests grow with rich diversity that ranges between 2200 m and 2800 m. Mixed-oak forests are found beneath coniferous forests between 1800 m and 2200 m. Below these forests, Pine forests are found that range from 1100 to 1800 m. Below the Pine forests, the Shivalik hills and monsoon deciduous forests grow (Fig. 4).

The Ganga River watershed is home to a diverse range of biological wealth including flora and fauna. The floral diversity is high in the source of Ganga up to Rishikesh. Plants are a major source of medicine, most people use medicinal plants for their primary health care because they trust plants' effectiveness, lack of modern healthcare alternatives, and

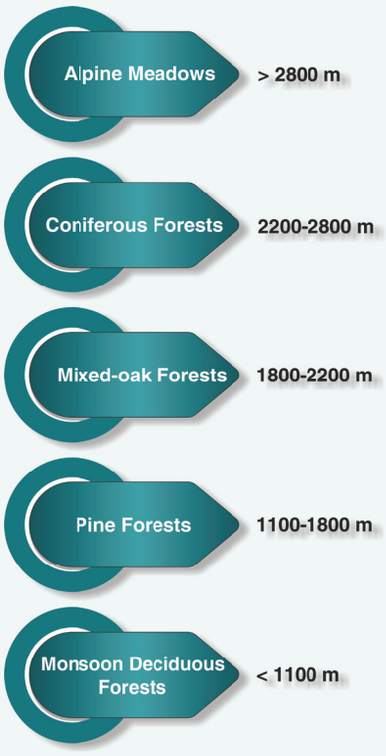


Fig. 4 Forest and their range around the Ganga

cultural preferences. Medicinal plants are beneficial to heal or cure diseases towards health improvement. The Ganga River watershed is known as "a treasure house of drugs" since it is home to several economically valuable medicinal plants that grow there naturally. The upper Ganga which is the source of the river is a vital storehouse for medicinal plants and is mainly a reservoir of the *Aconitum* spp., *Angelica glauca*, *Berberis lycium*, *Bergenia* spp., *Betula utilis*, *Geranium wallachianum, Taxus baccata*, etc. As early as 1000 BC, ancient Indian writings mention the existence of a variety of therapeutic plants in the Himalaya. The middle Ganga which passes through Uttar Pradesh, Bihar, Jharkhand, and West Bengal has a rich diversity of medicinal plants which is mainly a reservoir of the *Achyranthes aspera, Justicia adhatoda, Aegle marmelos, Asparagus racemosus, Datura stramonium, Euphorbia hirta, Ficus racemosa, Rauwolfia serpentina, Solanum nigrum, Withania somnifera,* etc. The lower Ganga passes through the deltaic



Fig. 5 Study sites and study area along the Ganga River

tract and supports the mangrove vegetation such as *Avicennia* spp., *Excoecaria agallocha, Hydrolea* spp., *Ipomoea aquatica, Limnophila indica, Nelumbo nucifera, Sonneratia apetala, Vallisneria spiralis,* etc.

Based on available studies, a field survey was conducted along the Ganga River from Gomukh to Gangasagar in a total of twenty-six sites. Among all the sites, five (S1–S5) were located in Uttarakhand, ten (S6–S15) in Uttar Pradesh, five (S16–S20) in Bihar, one (S21) in Jharkhand, and five (S22–S26) in West Bengal (Fig. 5).

The interview of the respondents who knew about the medicinal plants was taken with the help of a selected questionnaire and the data were collected according to the objectives of the study using procedures such as an interview schedule, field observation, and individual and group interaction. The

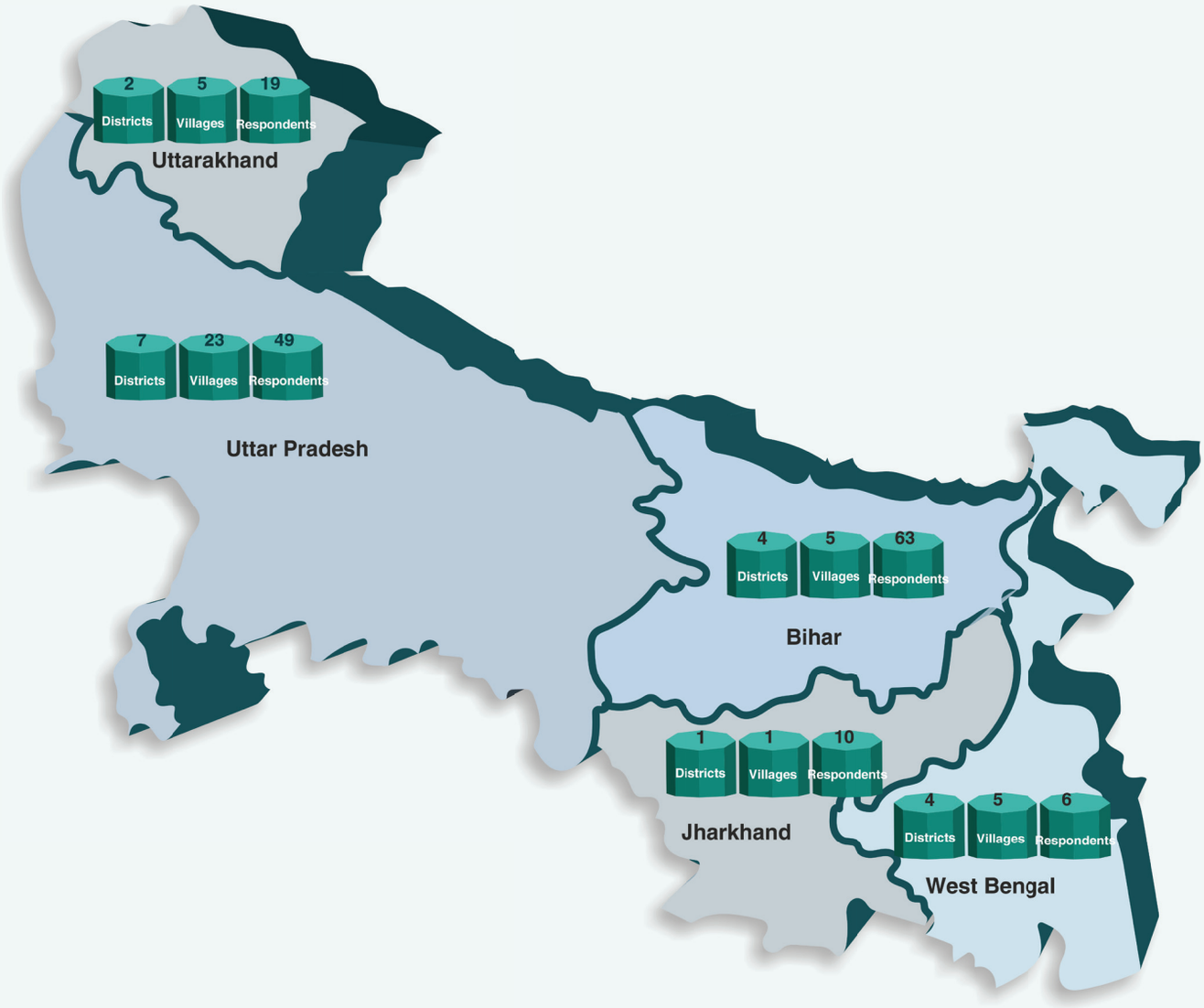


Fig. 6 Number of respondents and their respective villages and districts along the Ganga River in various states

medicinal plants under discussion were collected for the preparation of herbarium/ voucher specimens, and statistical analysis was performed on the data gathered from the respondents.

During the study, a total of 147 respondents from 39 villages/localities of 18 districts from all around the Ganga River interacted. A maximum of 63 (42.86%) respondents were from Bihar followed by Uttar Pradesh (49, 33.33%), Uttarakhand (19, 12.93%), Jharkhand (10, 6.80%), and West Bengal (6, 4.08%) (Fig. 6)

Among all the 147 respondents, 103 were male, accounting for around 70.07% of the sample, and 44 were female, making up approximately 29.93% (Fig. 7). Four age categories were used to categorize the respondents: 18-35, 36-50, 51-65, and >65 years. Of the total, a maximum of 50 respondents were between the ages of 51 and 65 years (Fig. 8).

The respondents' educational attainment is divided into six categories illiterate, primary, middle, high school, intermediate,



Fig. 7 Gender counts of the respondents

and higher education. The majority of respondents (30) had completed up to a middle-class education, 22 had only completed elementary school, 26 had completed high school, 21 had completed intermediate education, 20 had completed higher education, and 28 had not received any formal education (Fig. 9).

As per the respondent's occupations, the majority of the respondents 106 were farmers while the remaining 46 came under the non-farmers, including labours, shopkeepers, LIC servicemen, shepherds, homemakers, sailors, priests, and constructors (Fig. 10).

A total of 114 plants with their administration and applications from various plant families have been identified and documented. After analysis, the identified plants were classified into fifty-eight plant families. The Asteraceae, Fabaceae, Lamiaceae, Apocynaceae, and Euphorbiaceae were the top five dominant families (Fig. 11).



Fig. 8 Respondents count in respect to their age group

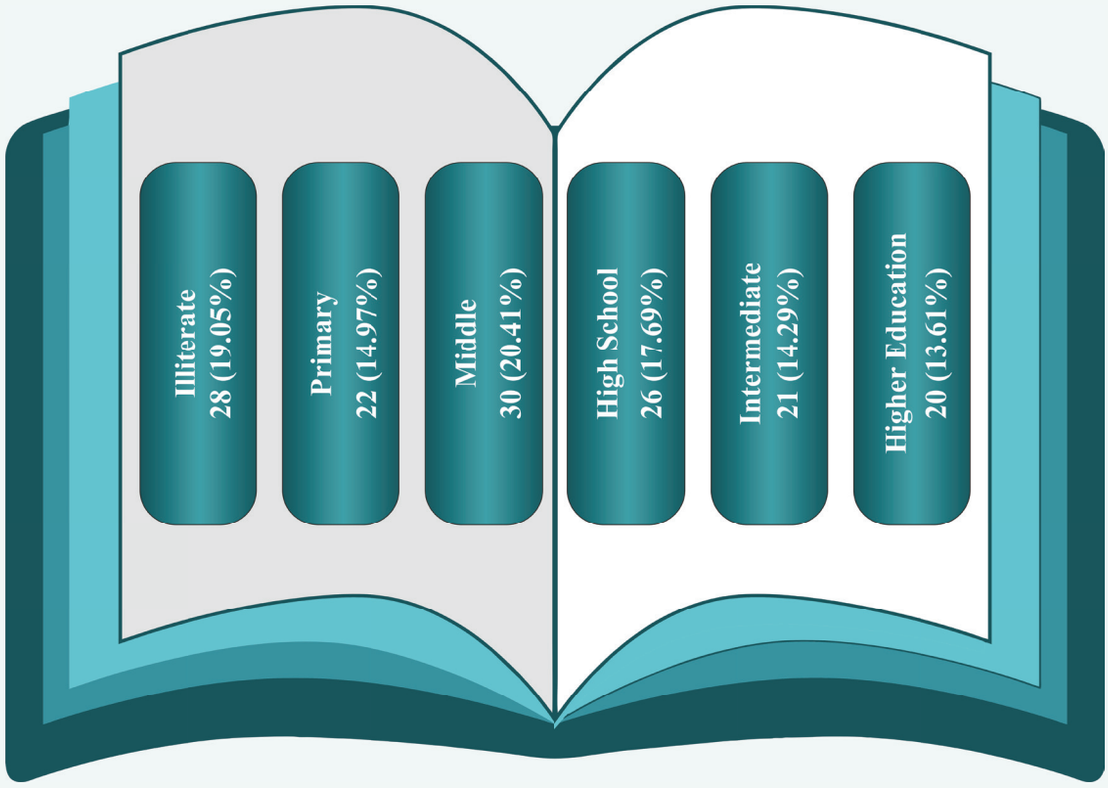


Fig. 9 Educational Attainment of the Respondents

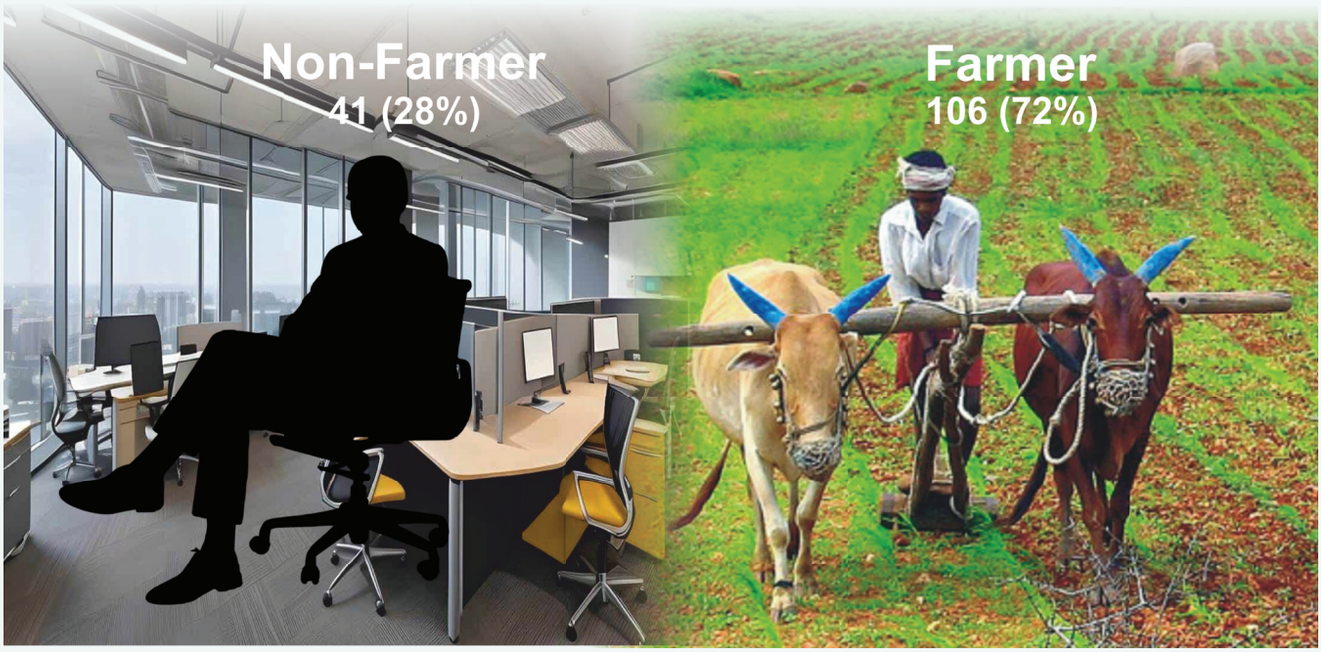


Fig. 10 Number of respondents with their occupations



Fig. 11 Dominant five Plant families to their number of plants

All the identified and documented plants were analyzed with their habits and a total of four different habits have been recognized; the majority of the medicinal plants were herbaceous (Fig. 12). Every plant that has been identified has ethnomedicinal value due to its highly valued parts. The majority of the plants were useful for their leaves value followed by their entire body (Fig. 13).



Fig. 12 Different plant habits with their respective number of plants

Every plant has a unique administration method in terms of medicinal potential. A total of 15 administrative modes have been recognized for the treatment of various diseases. The commonly used administrative modes are represented in Fig. 14.

The documented plants have been very useful in the treatment of a total of sixty-two different disease conditions that have been grouped into fifteen use categories. The total number of used plants and the informants who discussed the category are represented in Fig. 15.

A quantitative analysis has been performed on the documented medicinal plants. An important metric for estimating plant frequency across categories is the informant consensus factor (ICF), with



Fig. 13 Valuable plant parts with their respective number of plants



Fig. 14 Modes of administration with more than ten plants

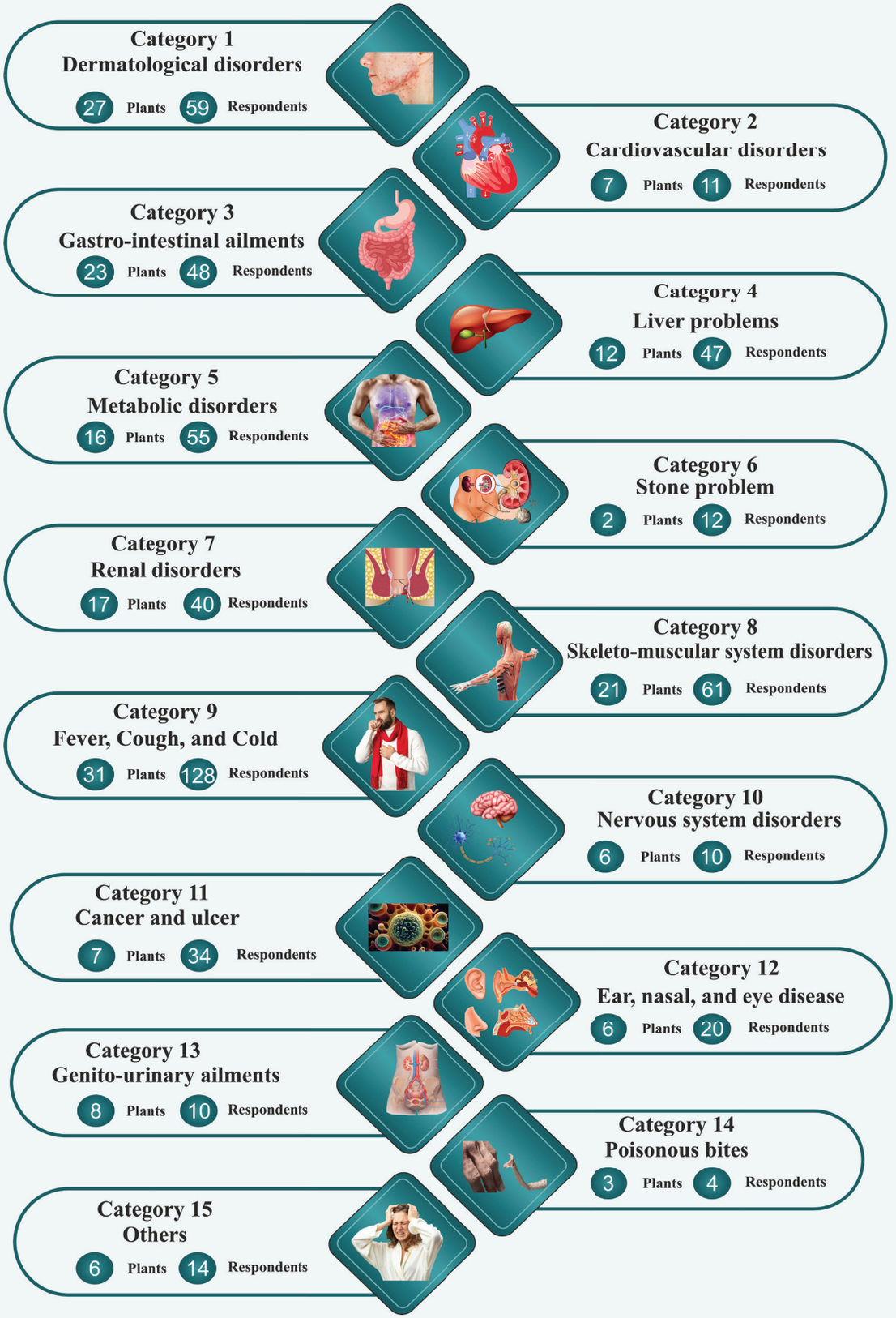


Fig. 15 Ailment use categories and their representative numbers of plant and respondents

category 6 having the highest ICF value. The use value (UV) validates the relative significance of plants to the population that has the highest UV recognition in *Ocimum americanum*. The most common plants and their local relevance to informants are described by the relative frequency of citation (RCF), with *Tinospora cordifolia* having the highest recorded RCF. The most often used plant is indicated by the fidelity level (FL), and *Tinospora cordifolia*, *Curcuma longa*, and *Ocimum tenuiflorum* have been shown to have higher FL values; as a result, they are regarded as the most commonly utilized plants in the Ganga River watershed.

In this campaign, 147 respondents from all along the Ganga River have been recognized with information on their villages, occupations, levels of education, and other characteristics. Information regarding their healing practices, diseases that they treat, and modes of administration have been procured. A total of 114 medicinal plants used by them have been identified and documented with their herbarium specimens. Furthermore, their habits, families, local names, and mode of administration have been analyzed. Their therapeutic techniques are still little known, and they only adhere to what their predecessors taught them. The natives of the Ganga River region gather a variety of plants from the forested regions, but they never give them any thought as to how to refill them. They have gained knowledge about the practice's significant environmental harm through this effort, and many loss-compensation methods have been covered. In addition to being used medicinally to cure various ailments, these plants have also been explored for their potential economic value, which would enable them to generate income to support themselves. The National Mission for Clean Ganga (NMCG) under the Ministry of Jal Shakti, the local administration, the respondents, and self-help groups all played a vital part in completing the project and providing for the natives in every way possible. It is anticipated that this project will assist in improving the socioeconomic standing and assisting in the self-sustenance of native people who reside along the Ganga River.

Furthermore, the videos that were created during the discussions with the villagers and/or respondents have been posted to the 'Patanjali Organic Research Institute Project' YouTube channel. A QR code is generated for each video, and the details of the videos are included at the end of the book with the separator 'Video QR Codes for Interactive Discussion and Training with Respondents'. In addition, a dashboard with all the data on the plants, responders, disease cure, etc., has been created with the name of 'Dynamic Dashboard Data Insights Ethnomedicinal Plants & Their Therapeutic Uses'. An overview of this dashboard has been provided at the end of this book.



1 Introduction

Water is the key resource required to sustain life on this planet. It is found in the majority of the earth as in the ocean, rivers, ponds, streams, ice, etc. The river Ganga is an important source of water in India that makes an important river system from the Himalaya to the Bay of Bengal. The Indian civilization and economy depended on this river system due to its water availability throughout the year (Paul and Sinha, 2013). Ganga alone accounts for 25% of India's total water resources (Paul, 2017). Globally more than 300 million people from India, Nepal, and Bangladesh depend on the river Ganga (Gopal, 2000). This river is the thirty-first longest river in the world and covers a basin area of 861,404 km^2 (Verma et al., 2014). This basin is the most populated area in the world with an average density of 520 $persons.km^{-2}$ (Das and Tamminga, 2012). The basin is very rich in heritage, cultural, and religious values.

The river originates from the Gomukh (30° 36' N; 79° 40' E; 3800 m) at Gangotri glacier in the Uttarkashi district of Uttarakhand under the name of Bhagirathi; and another tributary, *i.e.* Alaknanda which is originated from the Bhagirath-Kharak (30° 49' N; 79° 17' E) and Satopanth (30° 45' N; 79° 21' E) glaciers. Both the tributaries join at Devprayag from where the name Ganga started. Upto the Haridwar it flows in the hills after here it enters into the plains area. Haridwar is a holy place for the Hindus. From here it flows southwards, passing through the plains of Uttar Pradesh starting from Bijnor district. Upto the Ballia it continuously flows in Uttar Pradesh through different districts after here it enters Bihar near Chausa of Buxar district. It flows up to Katihar district in Bihar and enters the Sahebganj district of Jharkhand. Then it turns southwards and enters the West Bengal from the Murshidabad district. About 40 km from the Farakka it divides into two streams; the left stream flows eastwards toward Bangladesh while the right stream which is known as Hooghly, continues to flow south through West Bengal. Its name changed to Bhagirathi when it flows in the west and southwest of Kolkata and finally reaches the Bay of Bengal (Rahaman, 2009). The river has a total length of 2600 km from its main source Gomukh.

The annual water discharge from the river Ganga is about 18700 m^3/s, the fifth highest globally (Paul, 2017). The maximum flow of the Ganga exists within the catchment area with a mean maximum flow is 468.7×10^9 m^3 which is a total of 25.2 % of the total water resources of India (Sarkar et al, 2012) about one-fourth of the area of India drains by this river. The main source of the river Ganga is the melting of snow in the Himalayas and monsoon rains. The water of the Ganga is regularly used by the living being for drinking. Outdoor bathing is a spiritual of Hindus in which millions of people take a holy dip at least once a year throughout the river, from Gangotri to Gangasagar. The Ganga main stream is the fifteenth longest river in Asia and the thirty-first largest river worldwide, which is about 2600 km from its main source Gomukh to the Gangasagar (Sati, 2021). However, it forms the world's biggest alluvial plain, the cradle of one of the greatest ancient civilizations, the 'Ganges Civilization'. Now, it is called the 'Greater Ganga Basin'. The river has the backbone of the economy in India and a powerful presence in the Hindu religion.

People from all over the world are drawn to the Ganga basin because of its variety, species richness, and unique qualities. From ancient times, plant communities have been a key source of interest for researchers. An area's vegetation assemblages and composition create an important habitat that supports the growth and maintenance of these ecosystems. The Ganga's vegetation pattern is subject to seasonal variations, topogeography, flood levels, and species composition influenced by various soil types and water supply functions. These factors can have a significant impact on the distribution of plant species. Macrophytes such as submerged, emergent, and free-floating aquatic plants are known to accumulate and bioconcentrate heavy metals producing an internal concentration several folds greater than their surroundings (Chen et al., 2008). Among the vegetation, the river basin has a good reservoir for medicinal plant species that make the lifeline of the natives around the Ganga. The natives always depend on the river for water and medicinal importance to fulfill their requirements from the beginning.

In this regard, the river basin is referred to as a storehouse of medicinal plants because of its extremely rich biodiversity. The majority of the plants have a direct connection to the people who live in the basin and use them daily. These medicinal plants assist the indigenous people in getting better due to their traditional knowledge and awareness of the environment. As far as we are aware, the globe has just been hit by an odd organism known as COVID-19 that mimics the SARS virus and has an impact on both human health and the global economy. To combat this, scholars from several fields prioritize their efforts. In this case, the creation of new, contemporary medicine that could treat a variety of illnesses may benefit from the traditional knowledge of the local population. To help find novel medicines for the benefit of humankind, traditional medicinal plant knowledge is being investigated.

The Ganga

› Religious and Cultural Significance

Beyond all other rivers on the earth, the Ganga holds immense spiritual and religious significance. The Ganga plays an important role in human civilization, especially in Hinduism. It is known as the cradle of human civilization and the lifeline of India. The Ganga River is very significant over the entirety of its course. Ganga is extremely important in terms of culture, spirituality, economy, and nature. The major towns and cities along this river are well-known destinations for yoga practitioners in search of peace, forgiveness, and salvation (Moksha). They are referred to as the Gateway to God or the 'Moksha Dwara' (gateway to salvation). These cities and towns include Gangotri, Uttarkashi, Rishikesh, Haridwar, Prayagraj, Varanasi, and Gangasagar. Hindus believe that the Ganga system is predicated on the harmony between nature and human existence. The Ganga and its tributaries serve as the sites of Hindu ceremonies. The Ganga is used for cremations, and the ashes are disposed away in the river.

The Ganga "Aarti," or prayer, is the major event that takes place at every Ghat along the river every morning and evening. It is a notable occasion that is mostly known in the Ghats of Rishikesh, Haridwar, and Varanasi. All kinds of 'Havans' or 'Yogas', including the *Ganga Pujan, Laghurudra, Maharudra, Atirudra, Durgapuja, Laxchandi, Navchandi, Gayatri, Bhoomi,*




नमामि गंगे
चण्डी घाट
आदेश
चंडीघाट हरिद्वार का निर्माण नमामि गंगे कार्यक्रम, भारत सरकार के अन्तर्गत किया है। चंडीघाट, हरिद्वार पर किसी भी प्रकार के कार्यक्रम हेतु अनापत्ति पत्र की स्वीकृति कार्यालय कार्यक्रम निदेशक, राज्य परियोजना प्रबन्धन ग्रुप देहरादून उत्तराखण्ड शासन द्वारा लेनी अनिवार्य है।
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(भारत सरकार का उपक्रम)
जल संसाधन, नदी विकास व गंगा संरक्षण मंत्रालय

Shilanyas, Murti Partishtha, Vastu, Grah Shanti, Nakshtra, Lalsrap, Shradh Karma, Narayanbali, and *Shivlingam Abishek,* as well as the *Namkaran, Vivah,* and *Antimsamsakra* perform along the river. In addition to this, Ganga Ghats are used for various rituals such as *Pitra Dosha, Kalsarp Yoga, Shani Dosha, Manglik Dosha, Alpayu Yoga, Mrityu Yoga*, and other rituals. The Ghats of important pilgrimages are where Gangajal is collected. It's said that Gangajal even dropped into a dying person's mouth to provide them with immediate salvation (Kumar, 2017).

On major Hindu occasions like Kumbh Mela, Kartik Purnima, Makar Sakranti, Ganga Dussehra, Chath Puja, etc., millions of people congregate along the river in a few selected places to worship and dip in the waters. The Kumbh Mela, which takes place once every twelve years in four locations—Haridwar, Prayagraj, Ujjain, and Nasik—is the biggest religious event on Earth. However, it is mostly celebrated at Haridwar and Prayagraj on the banks of the Ganga River. Additionally, the Mela, known as "Ardh-Kumbh", is held in these locations once every six years. On the day that the Ganga descends from heaven to the earth, people celebrate Ganga Dussehra. Another significant Hindu religious event, Magh Mela, is held yearly along the Ganga River and lasts for 45 days straight, beginning with "Makar Sankranti".

Another well-known celebration held by the river is "Ganga Dashami", also known as "Ganga Dussehra", which falls on *Jyesth Mah*, the *Dashami Tithi* of the *Shukla Paksha* in the Hindu calendar. The "Ganga Mahotsav" is another celebration that lasts for five days straight, starting on Kartik Purnima and ending on Deepawali. The Sikh communities celebrate the occasion as a "Dev Parva" or "Prakash Parva" because they think it marks the birth date of Guru Nanak Dev. For Hindu devotees, the month of *Sawan* in the Hindi calendar is extremely sacred and spiritual; it is also the month when the *Kanwar Yatra* is held. The Yatri devotees physically gather water from the Ganga River and pour it over the *Shivalinga* in their native areas after a lengthy spiritual journey.

› Natural Significance

The Ganga River has enormous natural significance. The forests, wetlands, freshwater river systems, and coastal regions that comprise the Ganga basin are home to a diverse range of biological wealth. These areas, which are considered environmentally vulnerable, must be shielded from pollution and have their flow rates reduced in different river sections. The Ganga River's surrounding forest ranges from alpine meadows in its source regions to coniferous, mixed-oak, pine, scrub-and-bushes, monsoon deciduous, and mangrove forests. There are dense forests across the Delta and the Himalayan area. There is rich and commercially useful biodiversity along the Ganga River. It is renowned for having a high biodiversity, which supports a wide variety of flora and animals and an abundance of biological resources. Additionally, there is a lot of agro-biodiversity in this watershed. This basin is good for growing a wide range of food grains, fruits, oilseeds, and pulses. Traditional subsistence cereal crops are cultivated in the upper basin. While the middle basin produces an abundance of wheat and paddy, the lower areas farm paddy and raise fish in the paddy fields.



The Ganga's faunal resources may be divided into three separate zones: the Upper Ganga, which flows across mountainous territory inside Uttarakhand; the middle Ganga, which passes through Uttar Pradesh, Bihar, Jharkhand, and West Bengal; the lower Ganga, which runs through the deltaic tract (Ghosh, 1991). The middle part is the most polluted due to human activity, even though the top section is the cleanest and has fragile ecosystems and a great variety of wildlife. In the lower segment, the inflow of silt from Nepalese rivers leads to serious issues. It is home to a wide variety of fish, including *Labeo rohita, Cirrhinus mrigala, Labeo calbasu*, and *Catla catla*, which are all significant commercial species. In addition to these, the river is home to other rare or threatened fish species including Large Catfish, Mahseer, Hilsa, etc. (Sanghi and Kaushal, 2014). The Ganga Basin is home to over 31% of India's national parks and 15% of wildlife sanctuaries, which protect some of the most vulnerable species, including vultures, Bengal tigers, and Gangetic dolphins. The Ganga basin in the Sundarbans is home to mangroves, one of the planet's most resilient and distinctive ecosystems (National Ganga River Basin Authority, 2011). The Ganga basin provides strong support for the variety of flora. It mainly possesses the Himalayan most and dry temperate; sub-tropical coniferous; tropical dry and moist deciduous vegetations.



› Vegetation

The Ganga's bank has a diverse range of flora. The floral diversity is high in the source of Ganga up to Rishikesh. The source areas known as alpine meadows are covered in snow from October to March. The plants hibernate during this period, and after the snow melts, they blossom once again. These areas are found above the 2800 m. Below this elevation, dense coniferous forests grow with rich diversity that ranges between 2200 m and 2800 m. The main representatives of these forests are Deodar, Spruce, Cedar, and Fir. Mixed-oak forests are found beneath coniferous forests between 1800 m and 2200 m. Below these forests, Pine forests are found that range from 1100 to 1800 m. Below the Pine forests, the Shivalik hills and monsoon deciduous forests grow (Sati, 2019). These all forests cover dense vegetation types. Throughout the Ganga basin, the floral diversity is very rich.

The Ganga River falls under all the vegetation types like tropical, sub-tropical, temperate, and alpine types. The tropical moist deciduous vegetation which is also known as monsoon forest mainly found in the Western Ghat, Eastern Coastal Plain, Eastern Plateau, and Himalayan foothills. These forests have a mean annual temperature is 26-27°C, an average relative humidity is 60-80%, and a moderate rainfall of 1500-2000 mm. These forests are mainly representative of *Bombax ceiba*, *Butea monosperma*, *Lagerstroemia speciosa*, *Madhuca ongifolia*, *Morus nigra*, *Santalum album*, *Shorea robusta*, *Tectona grandis*, *Terminalia arjuna*, etc. The tropical dry deciduous vegetation is found in the central part of India that has rainfall is less than 150 mm and the main representative plants are *Butea monosperma*, *Diospyros melanoxylon*, *Laurus nobilis*, *Pterocarpus marsupium*, *Senegalia catechu*, *Shorea robusta*, *Tectona grandis*, etc. Sub-tropical Coniferous vegetation is


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Cheela Dam - Rishikesh Road, W5VG+W3V, Pathari Forest Range, Uttarakhand 249408, India
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नमामि गंगे
जल शक्ति मंत्रालय द्वारा प्रायोजित प्रशिक्षण एवं जागरूकता अभियान
नमामि गंगे योजना के अंतर्गत
पतंजलि आर्गेनिक रिसर्च इंस्टिट्यूट
द्वारा संचालित
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Pathari Forest Range, Uttarakhand, India
Cheela Dam - Rishikesh Road, W5VG+W3V, Pathari Forest Range, Uttarakhand 249408, India
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GPS Map Camera
Dafi, Uttar Pradesh, India
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33.58° C
314° NW
36.0 µT
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found in elevations between 1000 m and 1800 m in the Himalayan range. It is mainly representative of the Chir Pine without or a few lower vegetation. The Himalayan range has a temperate type of vegetation. It has dry and moist types of vegetation. The Himalayan dry temperate vegetation is found in the inner dry range of Western Himalaya with less than 1000 mm of rainfall. They are predominantly coniferous forests and representative of the *Acer* spp., *Cedrus deodara*, *Celtis* spp., *Pinus gerardiana*, *Quercus* spp., etc. The Himalayan moist temperate vegetation is found between 1500 m and 3000 m and is representative of the *Acer* spp., *Betula* spp., *Cedrus deodara*, *Juglans regia*, *Picea* spp., *Quercus* spp., etc. along with the mosses and fern vegetations (Sanghi and Kaushal, 2014).



The Ganga Plains, also known as the Great Indian Plains, are expansive floodplains of the Ganga, Indus, and Brahmaputra River systems. They are distinguished by forest stands or groves scattered with herbaceous species, mostly sedges and grasses (Champion and Seth, 1968). In the scrub woods of this plain, there are isolated pockets of *Adhatoda vasica*, *Carissa carandas*, *Cassia* spp., *Lawsonia inermis*, *Nyctanthes arbor-tritis*, *Parkinsonia aculeata*, *Ziziphus mauritiana*, and *Z. nummularia*. There are trees in open areas that belong to *Holoptelea integrifolia*, *Syzygium cumini*, *Bombax ceiba*, and *Melia azedarach*. Herbaceous plants such as *Alternanthera sessilis*, *Ammania baccifera*, *Cyperus rotandus*, *Polygonum plebeium*, *Rotala rotundifolia*, *Rumex dentatus*, *Scirpus* spp., and others can be found growing around lakes, ponds, and ditches as well as in damp areas. *Typha angustifolia*, *Nymphaea nouchali*, *Nymphoides cristata*, *Eichhornia crassipes*, and *Nelumbo nucifera* are a few examples of the common aquatic plants found in ponds and lakes. In the plain, the most common field crops are Triticum aestivum in the winter and *Oryza sativa* in the summer. Small-grained millets, cotton, sugarcane, pulses, oil seeds, jute, and pulses are some of the other crops grown (Pokharia et al., 2017).

The largest estuarine forest in the world, the Sundarbans, is found in the lower Ganga basin. The Ganges, Brahmaputra, and Meghna rivers come together to form the biggest delta in the Bay of Bengal, which is known as Sundarban. It has the Mangrove forests or vegetation. UNESCO declared this woodland as a World Heritage site in 1997 (Sati, 2021). A web-like system of rivers, canals, and streams intersects the tide-dominated funnel-shaped estuary. The distinct diversity of plant communities known as mangroves is supported by the transitional environment. In tropical and subtropical climates, mangrove forests provide a highly specialized habitat between the sea and the terrestrial ecosystem. The mangrove growth is seen in areas with regular tidal interaction, consistent freshwater and saltwater mixing, and ideal temperatures of 20°C. More than 300 plant species are

supported by it. The major representatives of this forest are *Acanthus ilicifolius, Aegialitis rotundifolia, Avicennia alba*, *Avicennia marina, Avicennia officinalis, Bruguiera parviflora, Finlaysonia obovate*, *Lumnitzera racemosa, Phoenix paludosa, Pongamia pinnata, Rhizophora apiculate, Rhizophora mucronate,* etc. (Sundarban Tiger Reserve, 2021).

Various earlier works have been done on the floristic diversity of the Ganga basin. Description of several plants of the Upper Ganga Plain has been reported by J.F. Duthie (1845-1926) in his three volumes of "Flora of the Upper Gangetic Plain and of the Adjacent Siwalik and Sub-Himalayan Tracts". According to Biswas (1955), a list of 171 species of aquatic angiosperms that grow commonly in freshwater, brackish water as well and marshy areas has been reported in "Handbook of Common Water and Marshy Plants of India and Burma". Subramanyam (1962), in "Aquatic Angiosperms" gives a detailed description and distribution of 117 taxa belonging to 32 families of the commonly found aquatic and halophytic flowering plants of the Indian Sub-continent. The systematic account of 1,230 species of Angiosperms belonging to 624 genera distributed over 115 families, which includes records of some aquatic angiosperms in this information is recorded by Babu (1977) in his book "Herbaceous Flora of Dehradun". Naskar describes the aquatic plants in two volumes "Aquatic and Semi-Aquatic Plants of the Lower Ganga Delta: Its Taxonomy Ecology and Economic Importance" (Naskar, 1990) and "Plant Wealth of the Lower Ganga Delta: An Eco-Taxonomical Approach" (Naskar, 1993). Shruti et al. (2019) described the vegetation of the mangrove delta region and the floristic diversity of the lower Gangetic plain.

› Medicinal Plants

Plants are a major source of medicine, most people use medicinal plants for their primary health care because they trust plants' effectiveness, lack of modern healthcare alternatives, and cultural preferences. Medicinal plants are beneficial to heal or cure diseases towards health improvement. All parts of plants such as roots, stems, leaves, flowers, fruits, seeds, etc. are used to cure diseases by different methods. In some cases, fresh leaves and other parts of plants are used for chewing and the juice extracted from them is used as medicine. Some dried parts of fresh plants are used in powdered form. Since ancient times people growing plant species for medicines, spices, condiments, etc. The ancient times the Himalayas were established for important as wealth of natural resources and sacred places. "Charaka Samhita" by Agnivesha and Charaka in 1922 was reported in "There is excellence among the mountains named Himalayas which is the best habitat of medicinal plants. Medicinal herbs flourishing in the valley have been in constant use by local inhabitants who are wholly dependent on local plants around them



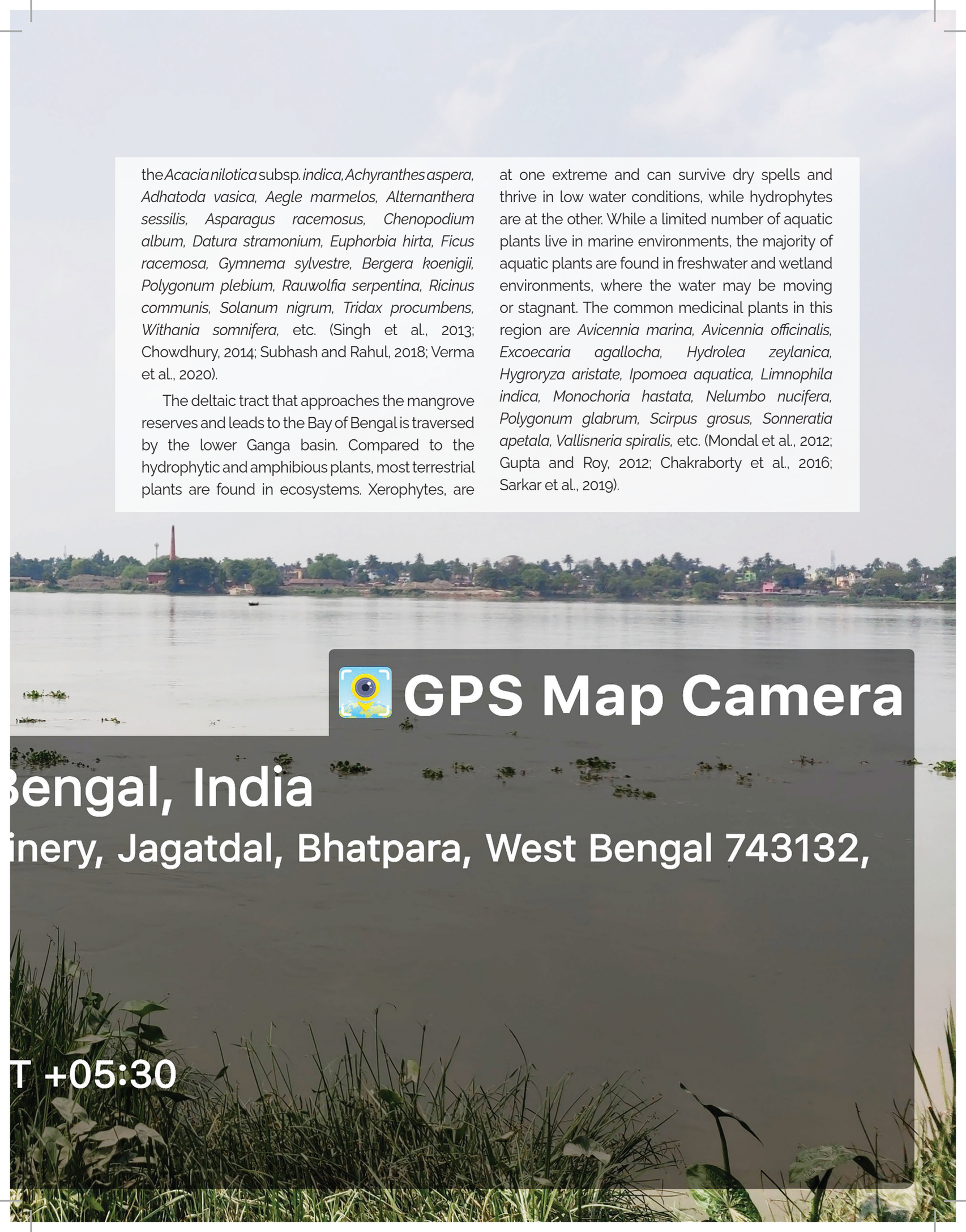
for treating various ailments by using the plants in their traditional methods (Rawat et al., 2010). With their wide range of medical properties, therapeutic plants are highly helpful in the search for new drugs or molecules that resemble drugs. Approximately 21,000 medicinal plants are still used by over 80% of the world's population, according to the World Health Organization (WHO) (Naini and Mamidala, 2013; Kumar et al., 2018).

The Ganga River watershed is known as "a treasure house of drugs" since it is home to several economically valuable medicinal plants that grow there naturally. It is said that the Vedic era marked the beginning of the traditional medical system that grew up around the Ganga Valley (Sati, 2021). The Ganga's source region is a vital storehouse for medicinal plants. As early as 1000 BC, ancient Indian writings mention the existence of a variety of therapeutic plants in the Himalaya (Bargali et al., 2022). The common medicinal plants reported in this area are *Abies pindrow*, *Aconitum ferox*, *A. heterophyllum*, *Angelica glauca*, *Berberis lycium*, *Bergenia ciliata*, *B. stracheyi*, *Betula utilis*, *Cannabis sativa*, *Geranium wallachianum*, *Saussurea simpsonina*, *Skimmia laureola*, *Taxus baccata*, etc. (Bhatt and Vashishtha, 2008; Rawat et al., 2010; Kumar and Singhal, 2019). The middle Ganga basin which passes through Uttar Pradesh, Bihar, Jharkhand, and West Bengal has a rich diversity of medicinal plants. This basin is mainly a reservoir of



the *Acacia nilotica* subsp. *indica*, *Achyranthes aspera*, *Adhatoda vasica*, *Aegle marmelos*, *Alternanthera sessilis*, *Asparagus racemosus*, *Chenopodium album*, *Datura stramonium*, *Euphorbia hirta*, *Ficus racemosa*, *Gymnema sylvestre*, *Bergera koenigii*, *Polygonum plebium*, *Rauwolfia serpentina*, *Ricinus communis*, *Solanum nigrum*, *Tridax procumbens*, *Withania somnifera*, etc. (Singh et al., 2013; Chowdhury, 2014; Subhash and Rahul, 2018; Verma et al., 2020).

The deltaic tract that approaches the mangrove reserves and leads to the Bay of Bengal is traversed by the lower Ganga basin. Compared to the hydrophytic and amphibious plants, most terrestrial plants are found in ecosystems. Xerophytes, are at one extreme and can survive dry spells and thrive in low water conditions, while hydrophytes are at the other. While a limited number of aquatic plants live in marine environments, the majority of aquatic plants are found in freshwater and wetland environments, where the water may be moving or stagnant. The common medicinal plants in this region are *Avicennia marina*, *Avicennia officinalis*, *Excoecaria agallocha*, *Hydrolea zeylanica*, *Hygroryza aristate*, *Ipomoea aquatica*, *Limnophila indica*, *Monochoria hastata*, *Nelumbo nucifera*, *Polygonum glabrum*, *Scirpus grosus*, *Sonneratia apetala*, *Vallisneria spiralis*, etc. (Mondal et al., 2012; Gupta and Roy, 2012; Chakraborty et al., 2016; Sarkar et al., 2019).







2 Strategies of Field Survey

Study Area

The present study was carried out along the Ganga River (Fig. 2.1). The Ganga began from the Gomukh in Gangotri glacier and ended at Gangasagar in the Bay of Bengal. Based on previous literature and Google toots (Google Maps, Google Earth), a total of twenty-six sites were selected with two sites ranging between around 100 km in distance while the whole distance is about 2600 km. The river Ganga flows through a total of five states, *i.e.* Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal. Among all the twenty-six sites, five (S1–S5) were located in Uttarakhand, ten (S6–S15) were located in Uttar Pradesh, five (S16–S20) were located in Bihar, one (S21) was located in Jharkhand, and five (S22–S26) were located in West Bengal (Table 2.1). Around 10 km were covered by the survey on both sides of the chosen sites.



Fig. 2.1 A map of the study area showing various study sites. The highlighted area around 10 kilometers on either side of the Ganga River was the surveyed area

Table 2.1 Different studied sites and their GPS coordinates

State	Site	Locality	GPS Coordinates		
			Altitude (m)	Latitude (N)	Longitude (E)
Uttarakhand	S1	Gomukh	4023	30.80	79.15
	S2	Gangotri	3415	30.98	78.93
	S3	Uttarkashi	1158	30.73	78.44
	S4	Devprayag	830	30.15	78.60
	S5	Haridwar	314	29.97	78.17
Uttar Pradesh	S6	Bijnor	225	29.37	78.13
	S7	Narora	174	28.20	78.38
	S8	Budaun	164	28.05	79.12
	S9	Farrukhabad	151	27.37	79.63
	S10	Bithoor	126	26.61	80.27
	S11	Dalmau	115	26.07	81.03
	S12	Prayagraj	98	25.45	81.85
	S13	Mirzapur	80	25.15	82.58
	S14	Varanasi	81	25.32	83.01
	S15	Ballia	67	25.76	84.15
Bihar	S16	Revelganj	52	25.78	84.67
	S17	Patna	53	25.61	85.14
	S18	Barh	47	25.48	85.72
	S19	Bahachouki	55	25.30	86.36
	S20	Farka	42	25.23	87.09
Jharkhand	S21	Sahebganj	16	25.25	87.65
West Bengal	S22	Farakka Barrage	30	24.82	87.90
	S23	Murshidabad	18	24.18	88.27
	S24	Mayapur	11	23.43	88.39
	S25	Hooghly	9	22.91	88.40
	S26	Gangasagar	4	22.19	88.19

Field Survey

The field survey was conducted in selected sites with a total of five teams. Different teams surveyed different states with the help of a valid questionnaire (Appendix V). The questionnaire contained information on the gender and age of informants, along with the local name, part used, mode of administration method, and ailment treated by the medicinal plant. This study is based on the information from the respondents who

are directly or indirectly dependent on the Ganga River and live around it (Appendix I). For the study purpose, the respondents were selected from the villages and given the respondent number. The respondent number with four digits for example 1.1.1.1; in which the first digit represents the state, the second digit represents the district, the third digit represents the village, and the last digit represents the respondent from the village. Data were collected according to the objectives of the study using procedures such as an interview schedule, field observation, and individual and group interaction. All the medicinal information was recorded.

Plant Collection and Identification

The discussed utilized medicinal plants were collected throughout the study sites for herbarium/ voucher specimen preparation, and conventional protocols were followed (Lawrence, 1951; Jain and Rao, 1977). The information on plant life and its therapeutic applications was obtained. For each collection, field data such as plant habit, habitat, size, type of bark (in the case of trees), color of flowers and fruits, and so on were documented. After appropriate identification, all herbarium specimens generated in this study were placed in the Patanjali Research Foundation Herbarium with the acronym PRFH for future records. After consulting protologues and other legitimate publications such as revisions and floras, each species was given up-to-date nomenclature with recently accepted names and significant synonyms. Various sources, such as Plants of the World Online (POWO), The International Plant Names Index (IPNI), Germplasm Resources Information Network (GRIN), International Legume Database and Information Service (ILDIS), The World Checklist of Vascular Plants (WCVP), World Flora Online (WFO), and Tropicos, were also used to update the nomenclature. Therapeutic utilities, traditional uses, vernacular names, important uses, and specimens examined have been provided for each species.

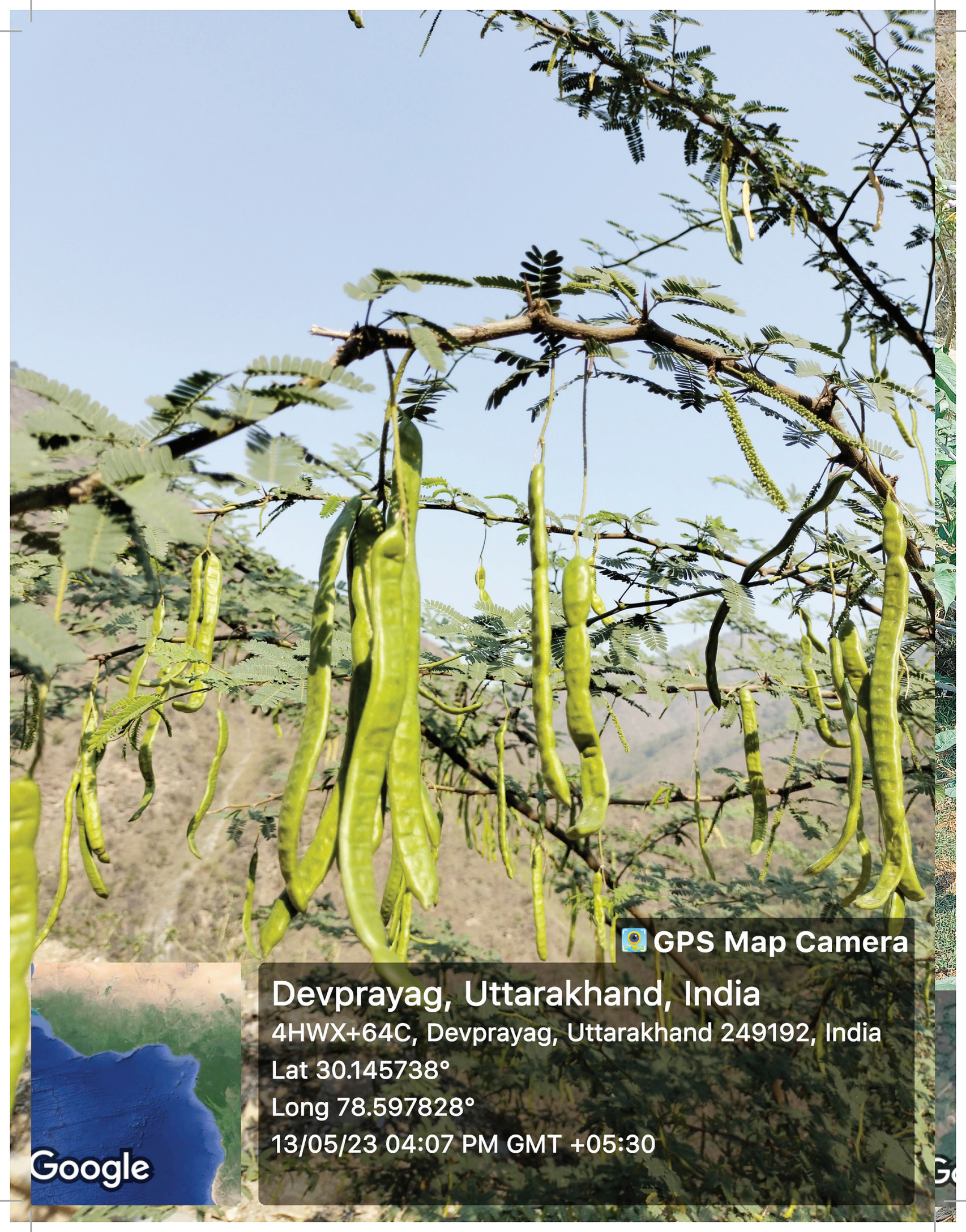


Ailment Categories

During the study, a total of sixty-two different disease conditions were recognized which were grouped into fifteen use categories (Table 2.2). Different respondent refers to the same or similar symptomatic diseases by different names, and their treatment procedures vary as well.

Table 2.2 Ailment use categories along with their disease conditions

Ailment Categories	Use Categories	Disease Conditions
Category 1	Dermatological disorders	Acne, Boil, Cut, Eczema, Inflammation, Leprosy, Pimples, Psoriasis, Swelling, Wound
Category 2	Cardiovascular disorders	Anemia, Blood Clotting, Blood disorder, Blood pressure
Category 3	Gastro-intestinal ailments	Appetite loss, Gastric problems, Hepatic disorder, Indigestion, stomachache
Category 4	Liver problems	Jaundice, Liver problems
Category 5	Metabolic disorders	Diabetes, Sugar
Category 6	Stone problem	Kidney stone, Stone
Category 7	Renal disorders	Cholera, Chronic Renal Pain, Diarrhea, Dysentery, Hemorrhoids (Piles)
Category 8	Skeleto-muscular system disorders	Arthritis or Joint pain, Bone disease, Physical disorder, Toothache, Uric acid (Hyperuricemia)
Category 9	Fever, Cough, and Cold	Asthma, Cold, Cough, Dengue, Fever, Malaria
Category 10	Nervous system disorders	Brain tonic, Epilepsy, Mental disorder, Nervous disease
Category 11	Cancer and ulcer	Cancer, Ulcer
Category 12	Ear, nasal, and eye disease	Ear, Eye, Nasal, and Throat diseases
Category 13	Genito-urinary ailments	Impotency, Lactation, Menstrual problems, Sexual disorder, Spermatorrhea, Urinary disease
Category 14	Poisonous bites	Scorpion sting, Snakebite
Category 15	Others	Hair problems, Headache, Internal injury


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Long 87.62208°
26/03/23 09:28 AM GMT +05:30
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Quantitative Analysis of Ethnobotanical Data

The data were entered into an Excel sheet and quantitatively it was analyzed. The frequencies and percentages were used to summarize ethnobotanical data. The informant consensus factor (ICF), use value (UV), relative frequency of citation (RFC), and fidelity level (FL) were calculated by these parameters.

› Informant Consensus Factor (ICF)

ICF expresses the consensus of informants related to the use of plant taxa in treating different use categories (Heinrich et al., 1998; Khan et al., 2015; Yaseen et al., 2015; Ahmad et al., 2018; Sargın and Büyükcengiz, 2019; Uzun and Koca, 2020; Balkrishna et al., 2023). High ICF values indicate that there is a consensus among informants about plants used for a particular disease group (Uzun and Koca, 2020). ICF was calculated using the given formula:

$$ICF = \frac{N_{ur}-N_t}{N_{ur}-1}$$

Where N_{ur} is the number of use reports for a specific ailment category and N_t is the number of taxa used in that particular category. ICF is generally used to indicate the consensus of knowledge on the medicinal plant used for a particular ailment.

› Use Value (UV)

The UV is an index that indicates the relative importance of locally known plant taxa, depending on the number of uses recorded for each species. It was calculated by the following formula (Trotter and Logan, 1986; Phillips et al., 1994):

$$UV = \frac{U}{n}$$

Where U represents the number of use reports for a plant species, and n is the total number of informants who inquired about that plant.

› Relative Frequency of Citation (RFC)

RFC, which represents the relative importance of plant species, depends on the number of informants that report the use of the species. It has been calculated to assess the consensus amongst the informants on the reported taxa. RFC indicates the local importance of plant species which is calculated by using the given formula (Rehman et al., 2017; Balkrishna et al., 2023):

$$RFC = \frac{FC}{N}$$

Where FC is the number of informants who reported the use of plant species, and N is the total number of participating informants.

› Fidelity Level (FL)

The more often used medicinal plants by the community have higher FL values than the less commonly used ones. The percentage of informants who assert that a certain plant species is used for the same primary purpose is demonstrated by the fidelity level. This is intended to measure the species' significance for a certain objective. The FL value was determined for each of the identified plants as a whole and a specific disease category using the following formula (Friedman et al., 1986; Khan et al., 2014):

$$FL(\%) = \frac{N_p}{N}$$

Where N_p is the number of respondents who reported the utilization of plants, and N is the total number of participating informants.

3

Detailed Achievements of the Study

Informant's Socio-demographic Characteristics

A total of 147 respondents from 39 localities of 18 districts from all around the Ganga River have interacted throughout the study. A maximum of 63 (42.86%) respondents were from 5 localities of Bihar who expressed a willingness to share their knowledge. In order of shared responses, after Bihar, Uttar Pradesh shared the most with 49 (33.33%) from 23 localities, followed by Uttarakhand with 19 (12.93%) from 5 localities, Jharkhand with 10 (6.80%) from 1 locality, and West Bengal with 6 (4.08%) from 5 localities (Fig. 3.1). The majority of the respondents' photos are included in Appendix II.

In this study, Bihar is in the leading position among the respondents, which means that most of the Bihari people conserve their ancestor's knowledge about medicinal plants. Uttar Pradesh shares the most area of the river, hence it contributed the maximum respondents after Bihar. Uttarakhand is a hilly state that contributes the maximum area of the river but the villages are very scattered and far from the river, hence the respondents were less than Uttar Pradesh and Bihar. In Jharkhand, the river flows through a single district and covers about 80 km, here we selected a single site, hence here the respondents were less. West Bengal contributes about 520 km of the river but here we found very less respondents, it was mainly due to language problems, most of the natives from this state were facing language issues during the interactions.

Among all the 147 respondents, 103 were male, accounting for around 70.07% of the sample, and 44 were women, making up approximately 29.93% (Table 3.1). Four age categories were used to categorize the respondents: 18-35, 36-50, 51-65, and >65 years. Of the total, a maximum of 50 (34.01%) respondents were between the ages of 51 and 65 years; 48 (32.65%) were between the ages of 36 and 50; 38 (25.85%) were between the ages of 18 and 35; and 11 (7.48%) were older than 65 (Table 3.1). In this study, the upper age group informers were higher than youngers which indicates the more experienced persons belong to the upper age groups and conserve their ancestor's traditional knowledge. 25.85% of young age respondents also indicate that they carry on with their ancestor's traditional knowledge which could be important for further therapeutic practices.

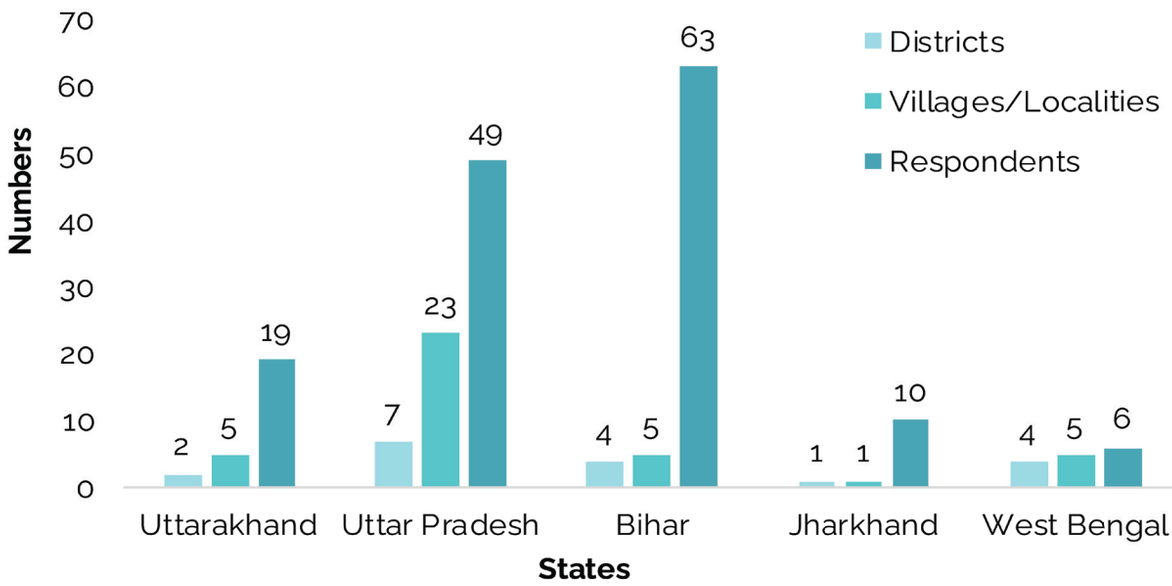


Fig. 3.1 Number of respondents, their villages or localities along with respective districts in various states

The respondents' educational attainment is divided into six categories, represented by the following scale:

Class Status	Education
0	Illiterate
2-5	Primary
6-8	Middle
9-10	High School
11-12	Intermediate
>12	Higher Education

The education attainment of the respondents as per the scale, the majority of respondents (30; 20.41%) had completed up to a middle-class education, 22 (14.97%) had only completed elementary school, 26 (17.69%) had completed high school, 21 (14.29%) had completed intermediate education, 20 (13.61%) had completed higher education, and 28 (19.05%) had not received any formal education (Table 3.1). According to the survey, the majority of respondents had very little formal education; as a result, they learned about plants from their parents, grandparents, and other herbalists. The educated respondents learned about plants via books, their personal experiences, and the experiences of their parents, grandparents, and other herbalists.

As per the respondent's occupations, the majority of the respondents 106 (72%) were farmers while the remaining 46 (28%) came under the non-farmers, including labours, shopkeepers, LIC servicemen, shepherds, homemakers, sailors, priests, and constructors (Fig. 3.2, Appendix I).

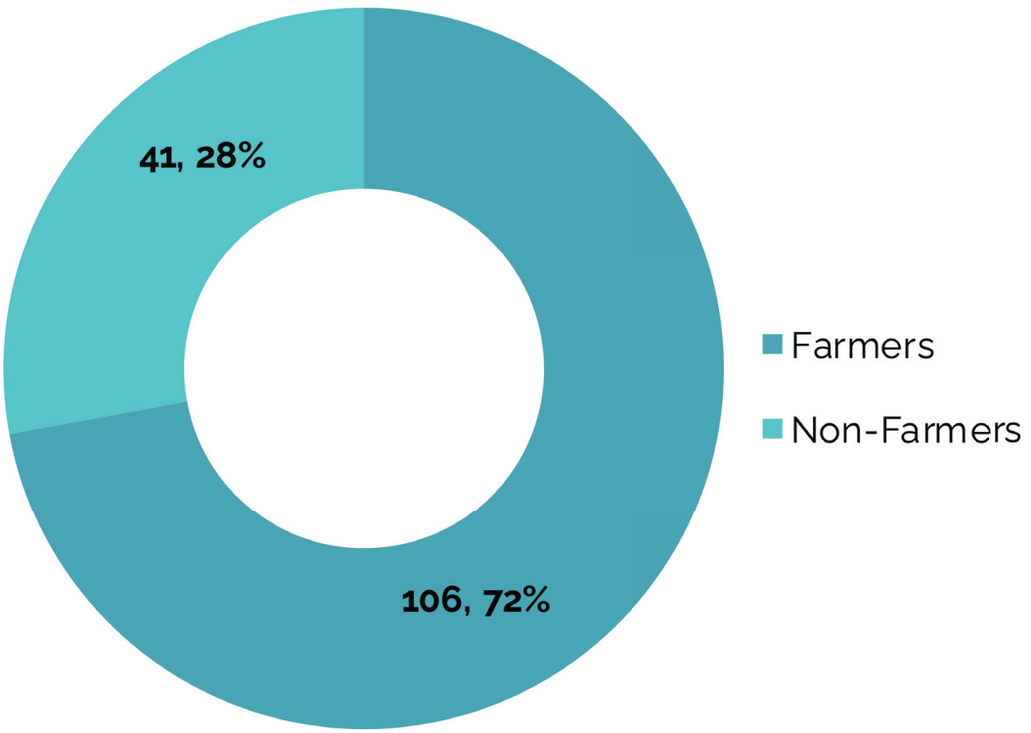


Fig. 3.2 Number of respondents with their occupations

Table 3.1 Socio-demographic characteristics of the respondents

Variable	Categories	Count	Percentage (%)
Respondents in State	Uttarakhand	19	12.93
	Uttar Pradesh	49	33.33
	Bihar	63	42.86
	Jharkhand	10	6.80
	West Bengal	6	4.08
Gender	Female	44	29.93
	Male	103	70.07
Age Groups	18-35	38	25.85
	36-50	48	32.65
	51-65	50	34.01
	66 and more	11	7.48
Educational Attainment	Illiterate	28	19.05
	Primary	22	14.97
	Middle	30	20.41
	High School	26	17.69
	Intermediate	21	14.29
	Higher Education	20	13.61

Plant Exploration

The respondents were aware of the uses of a variety of plants to treat common ailments. A total of 114 plants belonging to different plant families have been identified and documented. All 114 identified plants are included in Appendix III, along with names, families, habits, parts used, administration, and applications.

› Ethnomedicinal Plants and their Respective Families

All 114 medicinal plants identified in the study are classified into 58 plant families. Across all the families, Asteraceae had a leading position with a maximum of 8 plant species. Asteraceae was followed by Fabaceae, Lamiaceae, Apocynaceae, and Euphorbiaceae, with 7, 7, 6, and 5 plants, respectively (Fig. 3.3). Apart from these five families, the 10 families namely Acanthaceae, Amaryllidaceae, Apiaceae, Moraceae, Myrtaceae, Piperaceae, Poaceae, Ranunculaceae, Solanaceae, and Zingiberaceae each had 3 plant species; 8 families namely Araceae, Combretaceae, Convolvulaceae, Malvaceae, Menispermaceae, Phyllanthaceae, Rosaceae, and Rutaceae each had 2 plant species; while the remaining 35 families namely Amaranthaceae, Anacardiaceae, Annonaceae, Asparagaceae, Asphodelaceae, Aspleniaceae, Berberidaceae, Boraginaceae, Cannabaceae, Caprifoliaceae, Caricaceae, Costaceae, Cucurbitaceae, Fagaceae, Gentianaceae, Juglandaceae, Lauraceae, Liliaceae, Melanthiaceae, Meliaceae, Moringaceae, Musaceae, Nyctaginaceae, Oleaceae, Orchidaceae, Papaveraceae, Plantaginaceae, Polygonaceae, Pontederiaceae, Saxifragaceae, Taxaceae, Theaceae, Ulmaceae, Verbenaceae, and Vitaceae each had single plant species (Fig. 3.4).

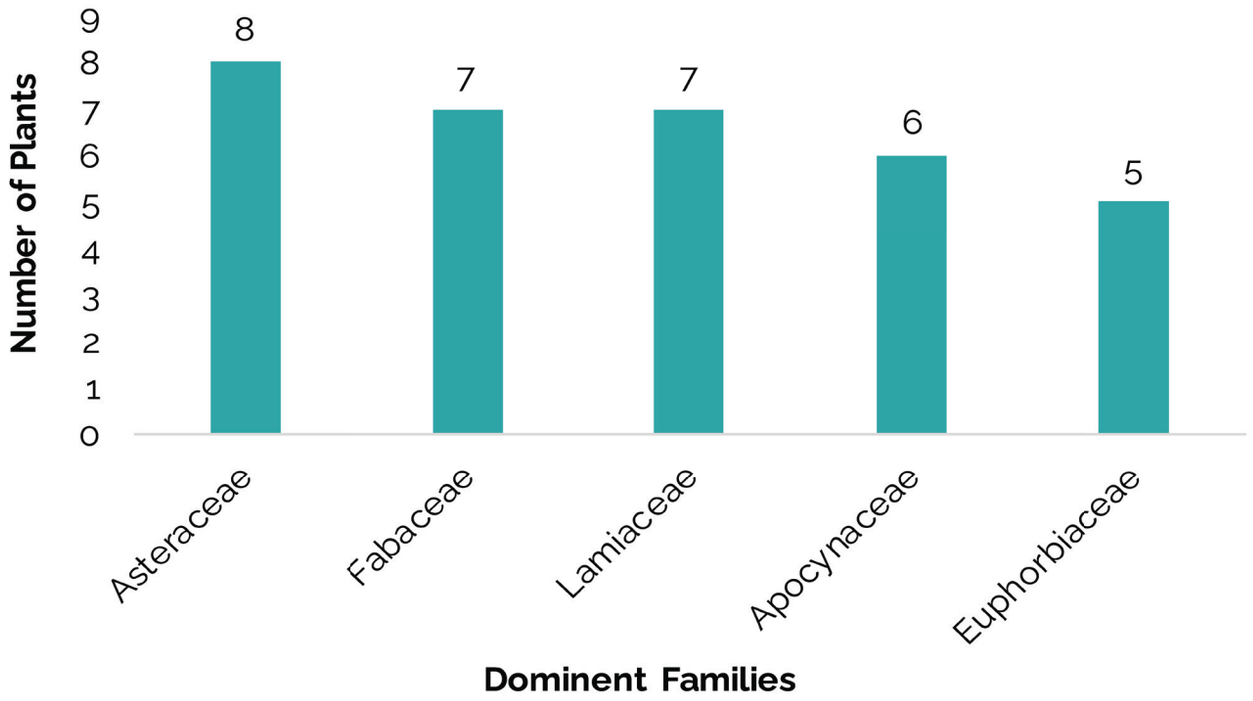


Fig. 3.3 Dominant five Plant families with respect to their numbers of medicinal plants

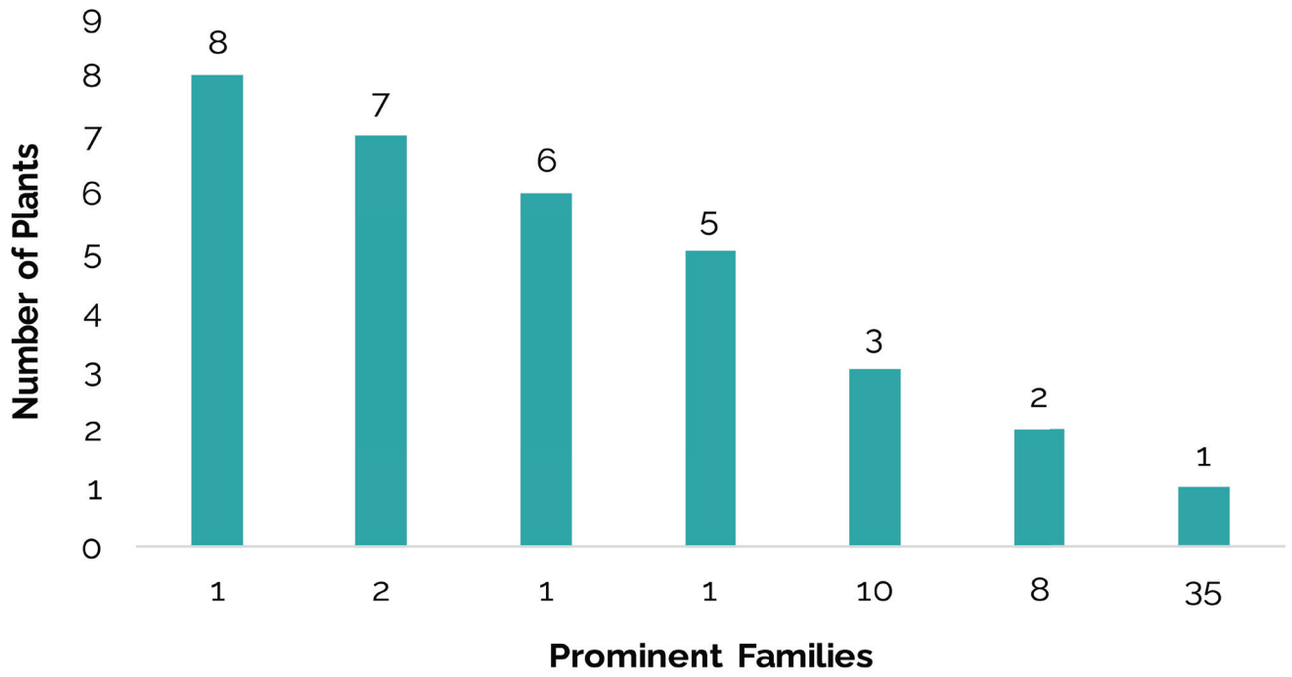


Fig. 3.4 Number of plants and their prominent families

Ethnomedicinal Plants and Their Habits

The habits of all 114 plants were analyzed. Seven different habits have been identified, including herb, shrub, tree, and climber. The maximum 55 (48.25%) medicinal plants were found to be herbaceous, followed by trees (34; 29.82%), shrubs (16; 14.04%), and climbers (9; 7.89%) (Fig. 3.5). Among all the plants one herb, *i.e. Thelypteris subpubescens* was recognized from the pteridophyte group. The majority of plants were herbaceous due to their widespread availability, typical method of preparing herbal remedies, and active participation in digestion and metabolism (Uniyal et al., 2006; Lulekal et al., 2013; Balkrishna et al., 2023). The medicinal plants were photographed throughout the survey for further identification and are included in Appendix IV. Many of the images are unavailable due to plant unavailability; many of the plants they utilized were purchased from the market and are either not grown in study areas or are seasonal.

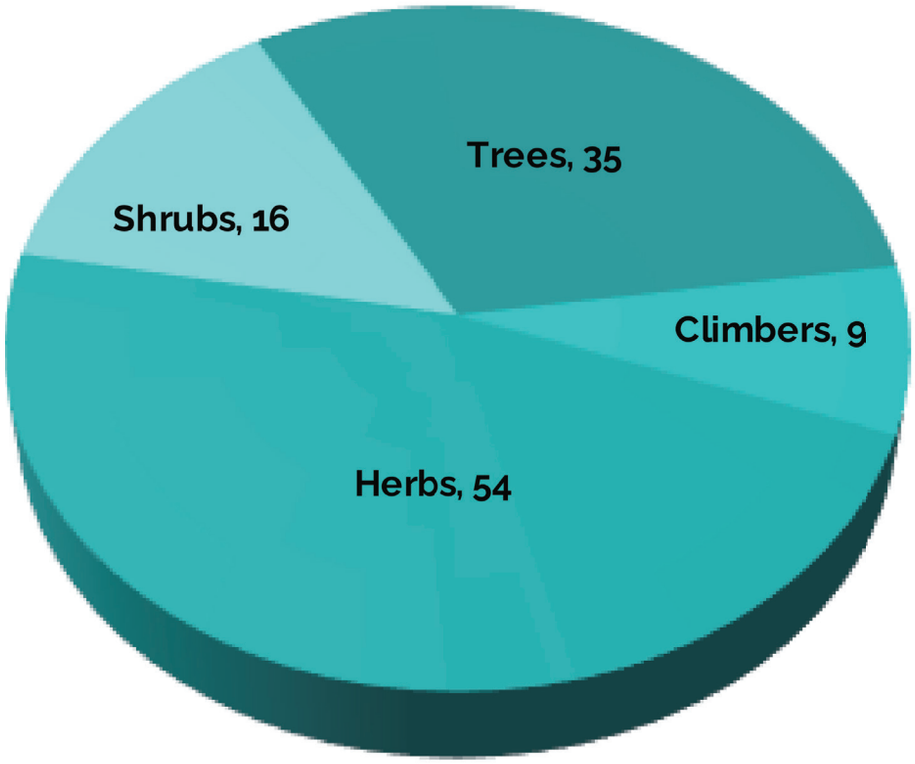


Fig. 3.5 Total number of medicinal plants with their habits

Ethnomedicinal Plant Parts Used in Different Ailments

The whole plant, a plant part or parts, or an ooze of any recognized medicinal plant has ethnomedicinal significance. 45 species of plants were evaluated for their leaves, accounting for most of their value for plant part utilization. The whole plant utilization of 22 plants was the second highest value. It was followed by roots (19 plants), fruits (16 plants), and seeds (9 plants). 6 plants were recorded for each stem value and flower value. 5 plants were recognized for their bark values, 3 plants for their rhizome values, 2 plants each for bulb and latex values, and a single plant was recognized for their tuber value (Fig. 3.6). The leaves have the highest value because the shoot parts, which contain a significant quantity of phenolic compounds, terpenoids, and alkaloids, are frequently employed in the manufacture of herbal medicines.

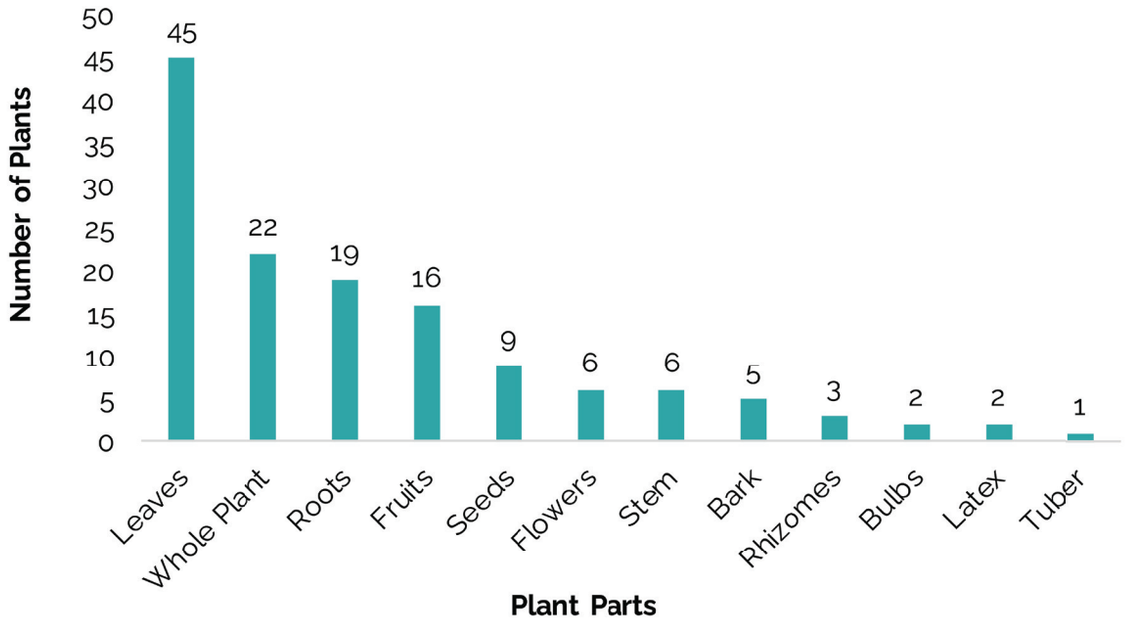


Fig. 3.6 Different used medicinal plant parts with respect to the number of plants

Administration Modes of Ethnomedicinal Plants

All the identified plants have a different administration mode. A maximum of 45 plants are administrated as a decoction, followed by 26 plants in paste form, 19 as juice, 26 with water extract, 15 in powder form, 14 plants used raw or direct form, 8 used in cooking, 5 with oil extract, 4 plants used with their heated leaves, 3 each are used for chewing and toothbrushing, 2 each for garland and smelling or fumes, and 1 each for tonic and vinegar (Fig. 3.7).

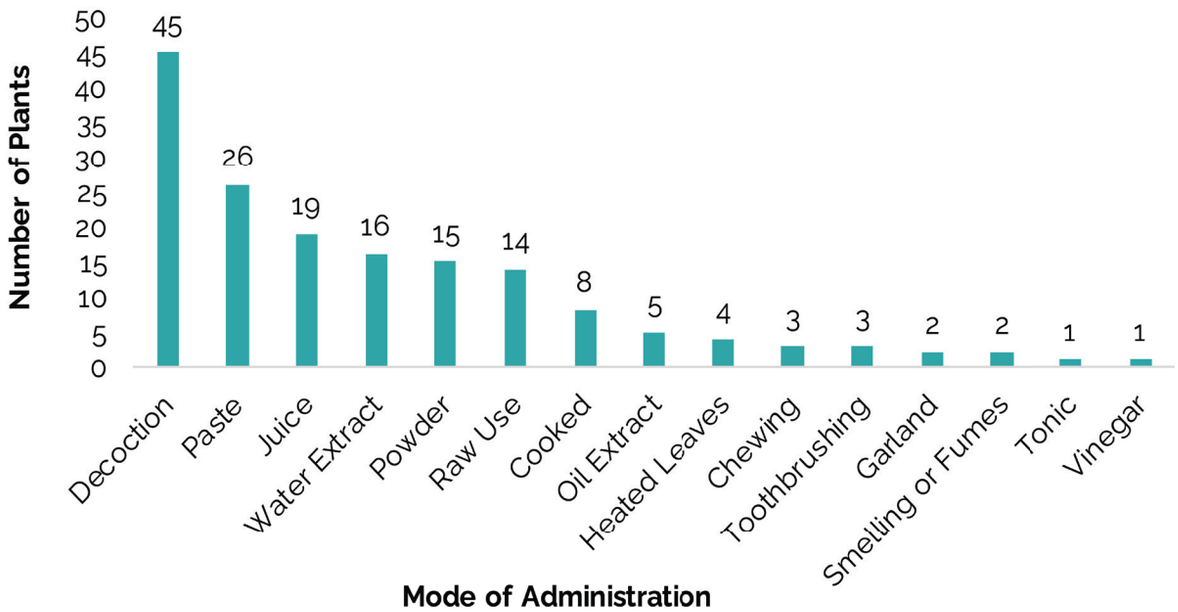


Fig. 3.7 Number of medicinal plants and their mode of administration





Ailment Categories

A variety of plants were used in various sites throughout the study areas to treat the various disease conditions that were divided into fifteen categories (Table 2.2). Among the different ailments categories, 128 respondents discussed a maximum of 31 plants in Category 9, followed by Category 1, which was treated by a total of 27 plants that were discussed by 59 respondents. 11 respondents discussed 7 plants in Category 2; 48 respondents discussed 23 plants in Category 3; 47 respondents discussed 12 plants in Category 4; 55 respondents discussed 16 plants in Category 5; 12 respondents discussed 2 plants in Category 6; 40 respondents discussed 17 plants in Category 7; 61 respondents discussed 21 plants in Category 8; 10 respondents discussed 6 plants in Category 10; 34 respondents discussed 7 plants in Category 11; 20 respondents discussed 6 plants in Category 12; 10 respondents discussed 8 plants in Category 13; 4 respondents discussed 3 plants in Category 14; and 14 respondents discussed 6 plants in Category 15 (Fig. 3.8).

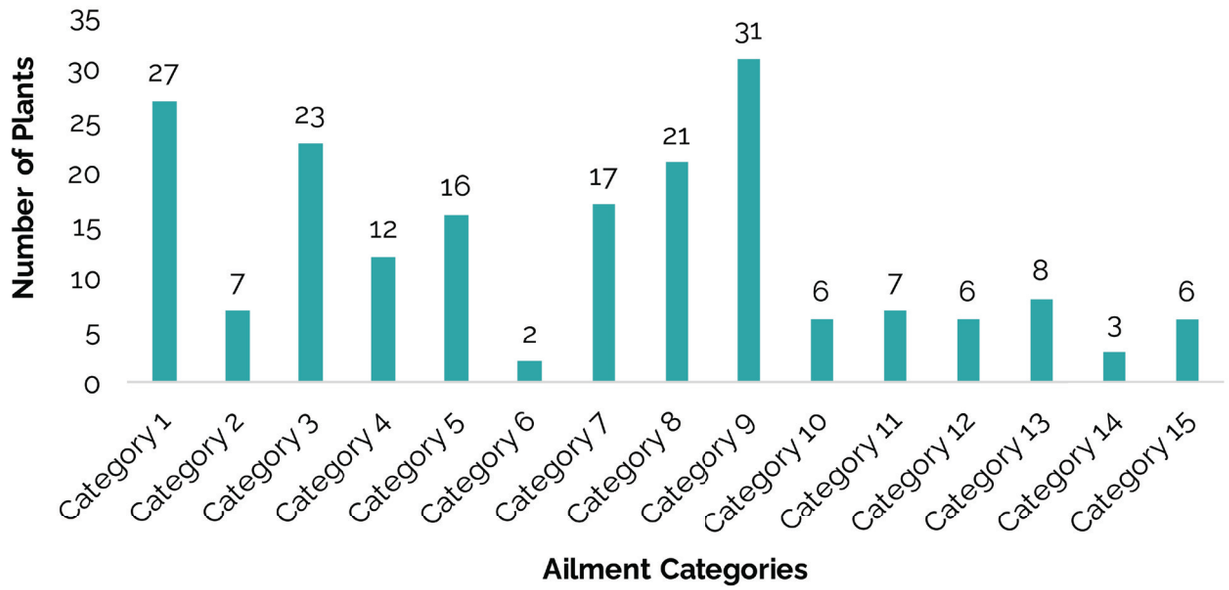


Fig. 3.8 Number of plant species with respect to the treatment of various ailment categories

Plant's Quantitative Analysis

› Informant Consensus Factor (ICF)

ICF is a potential method for determining the frequency of therapeutic plants for different ailment categories. The current study examined a total of 15 ailment categories, with ICF values ranging from 0 to 1. The highest ICF value of 0.91 was reported for category 6 (stone problem) followed by 0.85 for category 9 (fever, cough, and cold), 0.84 for category 12 (ear, nasal and eye disease), 0.82 for category 11 (cancer and ulcer). Remaining categories had the ICF values as 0.66 (category 1), 0.40 (category 2), 0.57 (category 3), 0.76 (category 4), 0.71 (category 5), 0.61 (category 7), 0.71 (category 8), 0.50 (category 10), 0.36 (category 13), 0.33 (category 14), and 0.62 (category 15) (Table 3.2).

The highest ICF value indicates that a considerable percentage of informants' report using taxa to treat a broad variety of diseases, whereas the lowest ICF value indicates that taxa are only used to cure a

small number of diseases (Gazzaneo et al., 2005; Rehman et al., 2017). Category 6 (stone problem) has the highest ICF value because this is very common in the study area due to people's unawareness. Over the past 30 years, there has been a notable global growth in the stone problem. The main reason is the overuse of medications, although it is also a result of changing environments and lifestyles (Matlaga et al., 2003). Fever, cough, and cold are categorized under category 9 which has the second largest ICF value because they are very common symptoms due to changes in climate and unusual lifestyles.

Table 3.2 ICF values for various ailment categories

Ailment Categories	No. of Plants	No. of Informants	Used Reports	ICF
Category 1	27	59	77	0.66
Category 2	7	11	11	0.40
Category 3	23	48	52	0.57
Category 4	12	47	47	0.76
Category 5	15	55	53	0.71
Category 6	2	12	12	0.91
Category 7	17	40	42	0.61
Category 8	21	61	70	0.71
Category 9	31	128	196	0.85
Category 10	6	10	11	0.50
Category 11	7	34	35	0.82
Category 12	6	20	32	0.84
Category 13	8	10	12	0.36
Category 14	3	4	4	0.33
Category 15	6	14	14	0.62

› Use Value (UV)

UV is used for quantitative data analysis that confirms the relative importance of ethnomedicinal plants to the population. The higher UV indicates more use reports for a plant species which is significant among informants whereas, the lower UV indicates fewer use reports. In the current study the UV value range from 1 to 5. The plant with the highest UV is *Ocimum americanum* (5.00) followed by *Pontederia crassipes* (3.00), *Malus domestica* (2.50), and each *Bacopa monnieri*, *Euphorbia hirta*, *Euphorbia thymifolia*, and *Paris polyphylla* with 2.00 UV (Table 3.3). The high use of these plant species indicates the common occurrence and importance among respondents as they frequently use these plants in herbal therapies for various ailments. The UV simply indicates the local importance of plant species against different ailments. The plants with the least UV as indicated in Table 3.3 were more effective against various ailments and could be used in other therapeutic uses, hence these plants can be used in the development of human pharmaceuticals (Macuja et al., 2015; Rehman et al., 2017; Balkrishna et al., 2023).

› Relative Frequency of Citation (RFC)

RFC describes the most frequent ethnomedicinal plants and their local significance concerning informants. A higher RFC score implies that plant species are more

prevalent among the informants. The score varies from 0 to 1; a greater value implies that the informants provided more knowledge about a plant species (Medeiros et al., 2011). In this study, the RFC ranges from 0.01 to 0.30. The plant with the highest RFC is *Tinospora cordifolia* (0.30) followed by *Ocimum tenuiflorum* (0.28), *Curcuma longa* (0.25), *Piper nigrum* (0.24), and *Zingiber officinale* (0.23) (Table 3.3). As these plants are more common and frequently used by the inhabitants hence their RFC is high. The plant *Tinospora cordifolia* had the highest RFC value (0.30) because it is an important herb that is used to cure common ailments such as fever, asthma, cough, cold, fever, blood pressure, malaria, dengue, diabetes, etc.; which was discussed by a total of 43 respondents in a total of 44 disease conditions. The other topmost RFC-valued plants were *Ocimum tenuiflorum, Curcuma longa, Piper nigrum,* and *Zingiber officinale* which have been widely used in home remedies and commonly utilized by the local inhabitants for curing their general disease conditions. The other plants were also recorded with their important herbal uses and their quantitative data is presented in Table 3.3.

› Fidelity Level (FL)

The FL was measured for every identified plant in the study area. The FL has ranged between 0.06 and 29.25 (Table 3.3). The maximum FL value was recorded in *Tinospora cordifolia* (29.25). *Curcuma longa* and *Ocimum tenuiflorum* each had a 25.17 FL value and were the second most frequently used plants in the Ganga River watershed. *Zingiber officinale* and *Piper nigrum* possessed third and fourth positions in terms of their utilization and had the FL values 23.13 and 21.77 respectively. Out of the documented 114 plants, twelve have more than ten FL values (Fig. 3.9). These are the medicinal plants that are utilized the most commonly in the studied area. The maximum FL indicates the frequency and high use of the plant by the informants in the study area. These dominated plants are frequently utilized throughout the Ganga River watershed hence having high FL values. The remaining plants have limited and area-specific utilization hence, had lower FL values.

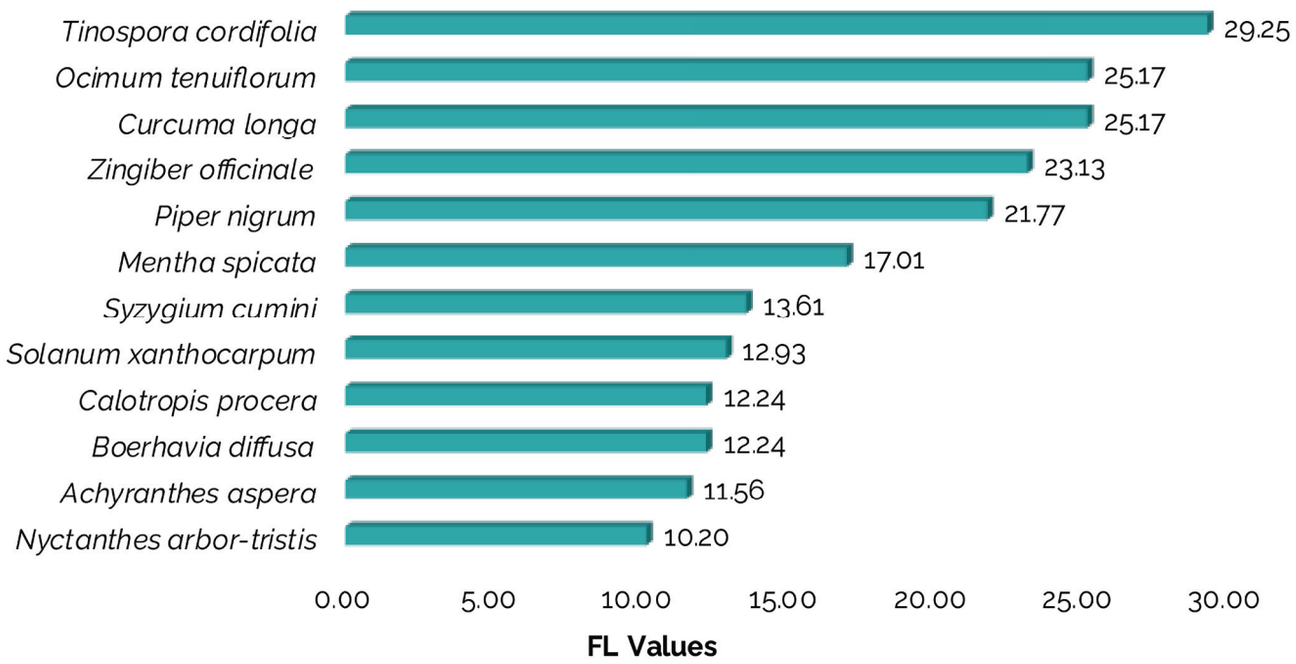


Fig. 3.9 Dominated medicinal plants having greater than ten FL values

The FL value was calculated for each ailment category that represents the uses of medicinal plants within the category; a higher FL indicates the higher utilization of plants (Table 3.4). In category 1, a total of 27 plants were used that ranged between 1.69 and 8.47 FL values; the maximum Fl was recorded for *Argemone mexicana* (8.74), followed by *Calotropis procera*, *Holoptelea integrifolia*, and *Solanum nigrum* each with 5.08 FL values. Under category 2, a total of 7 plants (*Citrus × limon*, *Dactylorhiza hatagirea*, *Malus domestica*, *Phyllanthus emblica*, *Pontederia crassipes*, *Solanum nigrum*, *Tinospora cordifolia*) were used and each had 9.09 FL values because each plant was discussed by the single respondent under this category. Under category 3, a total of 23 plants were discussed by the respondents among them *Phyllanthus emblica*, *Solanum nigrum*, *Terminalia bellirica*, and *Terminalia chebula* had a maximum of 4.17 FL values; while the remaining 19 plants had 2.08 FL values (Table 3.4).

In category 4, a total of 12 plants were used among them *Boerhavia diffusa* had a maximum of 4.26 FL value while the remaining plants had 2.13 FL values. Under category 5, a total of 16 plants were used and each plant had 1.85 FL values. In category 6, 2 plants namely *Bergenia ciliata* and *Solanum nigrum* were used and each had 8.33 FL values. In category 7, a total of 17 plants were discussed among them the 5 plants (*Achyranthes aspera*, *Aconitum heterophyllum*, *Aegle marmelos*, *Calotropis procera*, *Camellia sinensis*, *Cassia fistula*) were dominated with their maximum FL values of 5.00 each while the remaining 12 plants each had 2.50 FL values. In category 8, a total of 21 plants were used among them 11 plants (*Berberis lycium*, *Calotropis procera*, *Cissus quadrangularis*, *Colocasia esculenta*, *Curcuma longa*, *Malus domestica*, *Nyctanthes arbor-tristis*, *Ocimum tenuiflorum*, *Trigonella foenum-graecum*, *Vitex negundo*, *Wrightia tinctoria*) with their maximum FL value of 3.39 and remaining 10 plants (*Achyranthes*



aspera, *Cascabela thevetia*, *Euphorbia tithymaloides*, *Juglans regia*, *Ocimum americanum*, *Phyllanthus emblica*, *Piper betle*, *Prunus cerasoides*, *Solanum virginianum*, *Thelypteris subpubescens*) with 1.69 FL values (Table 3.4).

In category 9, a total of 31 plants were discussed, among them *Tinospora cordifolia* was a highly utilized plant with a maximum of 4.69 FL values followed by *Nyctanthes arbor-tristis* and *Ocimum tenuiflorum*, both of which had 3.13 FL values. In category 10, a total of 6 plants were used among them *Convolvulus prostrates* was highly utilized plant with FL value of 20, while the remaining 5 plants (*Amomum subulatum*, *Artabotrys hexapetalus*, *Bacopa monnieri*, *Nardostachys jatamansi*, *Piper betle*) each with FL value of 10. In category 11, a total of 7 plants were discussed among them the *Taxus wallichiana* had a maximum of 5.88 FL value while the remaining plants (*Acmella oleracea*, *Mentha spicata*, *Piper betle*, *Piper nigrum*, *Solanum nigrum*, *Syzygium aromaticum*) each with a FL value of 2.94. In category 12, a total of 6 plants were used along them *Achyranthes aspera* and *Ocimum tenuiflorum* were frequently used with 15 FL values followed by 10 FL (*Crinum asiaticum*) and 5 FL (*Argemone mexicana*, *Ficus benghalensis*, *Psidium guajava*).

In category 13, a total of 8 plants were discussed among them 5 plants (*Asparagus racemosus*, *Boerhavia diffusa*, *Cynodon dactylon*, *Hibiscus rosa-sinensis*, *Thalictrum foliolosum*) with 20 FL and 3 plants (*Acanthus ilicifolius*, *Bombax ceiba*, *Piper betle*) with 10 FL value. In category 14, a total of 3 plants have been discussed among them *Launaea procumbens* was with a maximum of 50 FL value and remaining plants namely *Calotropis procera* and *Cascabela thevetia* each had 25 FL values. Six plants (*Aloe vera*, *Ocimum tenuiflorum*, *Rheum austral*, *Solanum virginianum*, *Trigonella foenum-graecum*, *Wrightia tinctoria*) have been discussed under category 15 where each plant had 7.14 FL values (Table 3.4).

A lot of plants fall into the same use category. It's interesting to find the species that are most frequently used to cure a given ailment; this may be done using



the FL (Muhakr et al., 2024). The highest FL denotes the species' high frequency and usage in the study area as well as the categories of ailments. FL is intended to measure a species' significance for a certain objective. It is believed that medicinal plants with high FL values are more likely to be biologically active if they are used frequently for the same disease category (Trotter et al., 2019). Higher FL values show that the informants had more preference for that specific plant and that it has significant potential as a medicine (Ayyanar et al., 2011).

Table 3.3 Use value (UV), relative frequency of citation (RFC), and fidelity level (FL) value of the identified medicinal plants

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
1	*Acanthus ilicifolius* L.	1	1	1.00	0.01	0.68
2	*Achyranthes aspera* L.	21	17	1.24	0.14	11.56
3	*Acmella oleracea* (L.) R.K.Jansen	12	12	1.00	0.08	8.16
4	*Aconitum heterophyllum* Wall. ex Royle	20	13	1.54	0.14	8.84
5	*Aegle marmelos* (L.) Corrêa	4	4	1.00	0.03	2.72
6	*Ajuga integrifolia* Buch.-Ham. ex D.Don	4	4	1.00	0.03	2.72
7	*Albizia lebbeck* (L.) Benth.	1	1	1.00	0.01	0.68
8	*Allium humile* Kunth	2	2	1.00	0.01	1.36
9	*Allium sativum* L.	2	2	1.00	0.01	1.36
10	*Aloe vera* (L.) Burm.f.	6	5	1.20	0.04	3.40
11	*Amomum subulatum* Roxb.	2	2	1.00	0.01	1.36
12	*Angelica glauca* Edgew.	4	4	1.00	0.03	2.72
13	*Argemone mexicana* L.	9	7	1.29	0.06	4.76
14	*Arisaema propinquum* Schott	2	2	1.00	0.01	1.36
15	*Artabotrys hexapetalus* (L.f.) Bhandari	2	2	1.00	0.01	1.36
16	*Asparagus racemosus* Willd.	13	9	1.44	0.09	6.12

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
17	*Azadirachta indica* A.Juss.	3	3	1.00	0.02	2.04
18	*Bacopa monnieri* (L.) Wettst.	2	1	2.00	0.01	0.68
19	*Barleria prionitis* L.	1	1	1.00	0.01	0.68
20	*Berberis lycium* Royle	9	9	1.00	0.06	6.12
21	*Bergenia ciliata* (Haw.) Sternb.	11	11	1.00	0.07	7.48
22	*Boerhavia diffusa* L.	10	9	1.11	0.14	12.24
23	*Bombax ceiba* L.	1	1	1.00	0.01	0.68
24	*Cajanus cajan* (L.) Huth	7	7	1.00	0.05	4.76
25	*Calotropis procera* (Aiton) W.T.Aiton	20	18	1.11	0.14	12.24
26	*Camellia sinensis* (L.) Kuntze	2	2	1.00	0.01	1.36
27	*Cannabis sativa* L.	7	4	1.75	0.05	2.72
28	*Carica papaya* L.	8	8	1.00	0.05	5.44
29	*Carum carvi* L.	2	2	1.00	0.01	1.36
30	*Cascabela thevetia* (L.) Lippold	9	7	1.29	0.06	4.76
31	*Cassia fistula L.*	3	2	1.50	0.02	1.36
32	*Catharanthus roseus* (L.) G.Don	5	5	1.00	0.03	3.40
33	*Cenchrus purpureus* (Schumach.) Morrone	2	2	1.00	0.01	1.36
34	*Cinnamomum verum* J.Presl	1	1	1.00	0.01	0.68
35	*Cissus quadrangularis* L.	1	1	1.00	0.01	0.68
36	*Citrus × limon* (L.) Osbeck	5	5	1.00	0.03	3.40

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
37	*Clerodendrum infortunatum* L.	8	8	1.00	0.05	5.44
38	*Colocasia esculenta* (L.) Schott	1	1	1.00	0.01	0.68
39	*Convolvulus prostratus* Forssk.	3	3	1.00	0.02	2.04
40	*Cordia myxa* L.	8	8	1.00	0.05	5.44
41	*Crinum asiaticum* L.	5	5	1.00	0.03	3.40
42	*Cucumis sativus* L.	3	3	1.00	0.02	2.04
43	*Curcuma longa* L.	37	37	1.00	0.25	25.17
44	*Cyanthillium cinereum* (L.) H.Rob.	2	2	1.00	0.01	1.36
45	*Cynodon dactylon* (L.) Pers.	8	8	1.00	0.05	5.44
46	*Dactylorhiza hatagirea* (D.Don) Soó	9	9	1.00	0.06	6.12
47	*Datura stramonium* L.	4	4	1.00	0.03	2.72
48	*Eclipta prostrata* (L.) L.	2	2	1.00	0.01	1.36
49	*Euphorbia hirta* L.	2	1	2.00	0.01	0.68
50	*Euphorbia neriifolia* L.	1	1	1.00	0.01	0.68
51	*Euphorbia thymifolia* L.	2	1	2.00	0.01	0.68
52	*Euphorbia tithymaloides* L.	3	3	1.00	0.02	2.04
53	*Ficus benghalensis* L.	1	1	1.00	0.01	0.68
54	*Fritillaria cirrhosa* D.Don	2	2	1.00	0.01	1.36
55	*Glycyrrhiza glabra* L.	2	2	1.00	0.01	1.36
56	*Gymnema sylvestre* (Retz.) R.Br. ex Sm.	1	1	1.00	0.01	0.68

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
57	*Hellenia speciosa* (J.Koenig) S.R.Dutta	1	1	1.00	0.01	0.68
58	*Hibiscus rosa-sinensis* L.	1	1	1.00	0.01	0.68
59	*Holoptelea integrifolia* (Roxb.) Planch.	4	4	1.00	0.03	2.72
60	*Ipomoea carnea* subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin	2	2	1.00	0.01	1.36
61	*Juglans regia* L.	2	2	1.00	0.01	1.36
62	*Justicia adhatoda* L.	7	5	1.40	0.05	3.40
63	*Lablab purpureus* (L.) Sweet	1	1	1.00	0.01	0.68
64	*Lantana camara* L.	1	1	1.00	0.01	0.68
65	*Launaea procumbens* (Roxb.) Ramayya & Rajagopal	2	2	1.00	0.01	1.36
66	*Malus domestica* (Suckow) Borkh.	10	4	2.50	0.07	2.72
67	*Mangifera indica* L.	1	1	1.00	0.01	0.68
68	*Mentha spicata* L.	26	25	1.04	0.18	17.01
69	*Mikania micrantha* Kunth	5	3	1.67	0.03	2.04
70	*Moringa oleifera* Lam.	2	2	1.00	0.01	1.36
71	*Morus alba* L.	12	12	1.00	0.08	8.16
72	*Musa* × *paradisiaca* L.	5	5	1.00	0.03	3.40
73	*Nardostachys jatamansi* (D.Don) DC.	4	4	1.00	0.03	2.72
74	*Nerium oleander* L.	4	3	1.33	0.03	2.04
75	*Nyctanthes arbor-tristis* L.	15	15	1.00	0.10	10.20
76	*Ocimum americanum* L.	5	1	5.00	0.03	0.68

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
77	*Ocimum tenuiflorum* L.	41	37	1.11	0.28	25.17
78	*Origanum majorana* L.	1	1	1.00	0.01	0.68
79	*Paris polyphylla* Sm.	4	2	2.00	0.03	1.36
80	*Phyllanthus amarus* Schumach. & Thonn.	1	1	1.00	0.01	0.68
81	*Phyllanthus emblica* L.	14	13	1.08	0.10	8.84
82	*Piper betle* L.	6	6	1.00	0.04	4.08
83	*Piper longum* L.	3	3	1.00	0.02	2.04
84	*Piper nigrum* L.	35	32	1.09	0.24	21.77
85	*Pontederia crassipes* Mart.	6	2	3.00	0.04	1.36
86	*Prunus cerasoides* Buch.-Ham. ex D.Don	2	2	1.00	0.01	1.36
87	*Psidium guajava* L.	5	5	1.00	0.03	3.40
88	*Quercus leucotrichophora* A. Camus	7	5	1.40	0.05	3.40
89	*Ranunculus sceleratus* L.	1	1	1.00	0.01	0.68
90	*Rheum australe* D.Don	8	8	1.00	0.05	5.44
91	*Ricinus communis* L.	6	6	1.00	0.04	4.08
92	*Saccharum officinarum* L.	2	2	1.00	0.01	1.36
93	*Solanum nigrum* L.	19	11	1.73	0.13	7.48
94	*Solanum virginianum* L.	22	19	1.16	0.15	12.93
95	*Stevia rebaudiana* (Bertoni) Bertoni	1	1	1.00	0.01	0.68
96	*Streblus asper* Lour.	4	3	1.33	0.03	2.04

S No.	Botanical Names	Use Reports	Plant Informants	UV	RFC	FL
97	*Swertia chirayita* (Roxb.) H.Karst.	5	5	1.00	0.03	3.40
98	*Syzygium aromaticum* (L.) Merr. & L.M.Perry	1	1	1.00	0.01	0.68
99	*Syzygium cumini* (L.) Skeels	20	20	1.00	0.14	13.61
100	*Tagetes erecta* L.	1	1	1.00	0.01	0.68
101	*Taxus wallichiana* Zucc.	7	4	1.75	0.05	2.72
102	*Terminalia bellirica* (Gaertn.) Roxb.	3	3	1.00	0.02	2.04
103	*Terminalia chebula* Retz.	2	2	1.00	0.01	1.36
104	*Thalictrum foliolosum* DC.	4	4	1.00	0.03	2.72
105	*Thelypteris subpubescens* (Blume) K.Iwats.	2	2	1.00	0.01	1.36
106	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	44	43	1.02	0.30	29.25
107	*Tinospora crispa* (L.) Hook.f. & Thomson	7	7	1.00	0.05	4.76
108	*Trachyspermum ammi* (L.) Sprague	1	1	1.00	0.01	0.68
109	*Tridax procumbens* L.	4	4	1.00	0.03	2.72
110	*Trigonella foenum-graecum* L.	11	11	1.00	0.07	7.48
111	*Vachellia nilotica* subsp. *indica* (Benth.) Kyal. & Boatwr.	1	1	1.00	0.01	0.68
112	*Vitex negundo* L.	1	1	1.00	0.01	0.68
113	*Wrightia tinctoria* (Roxb.) R.Br.	7	5	1.40	0.05	3.40
114	*Zingiber officinale* Roscoe	34	34	1.00	0.23	23.13


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Table 3.4 Fidelity level (FL) value of identified medicinal plants for the various disease categories

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
Category 1	1	*Achyranthes aspera* L.	2	3.39
	2	*Argemone mexicana* L.	5	8.47
	3	*Arisaema propinquum* Schott	1	1.69
	4	*Azadirachta indica* A.Juss.	1	1.69
	5	*Berberis lycium* Royle	1	1.69
	6	*Calotropis procera* (Aiton) W.T.Aiton	3	5.08
	7	*Cannabis sativa* L.	2	3.39
	8	*Cascabela thevetia* (L.) Lippold	1	1.69
	9	*Dactylorhiza hatagirea* (D.Don) Soó	2	3.39
	10	*Datura stramonium* L.	2	3.39
	11	*Eclipta prostrata* (L.) L.	2	3.39
	12	*Euphorbia neriifolia* L.	2	3.39
	13	*Holoptelea integrifolia* (Roxb.) Planch.	3	5.08
	14	*Ipomoea carnea* subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin	1	1.69
	15	*Lablab purpureus* (L.) Sweet	1	1.69
	16	*Malus domestica* (Suckow) Borkh.	1	1.69
	17	*Mikania micrantha* Kunth	1	1.69
	18	*Moringa oleifera* Lam.	1	1.69
	19	*Morus alba* L.	1	1.69
	20	*Ocimum americanum* L.	2	3.39
	21	*Ocimum tenuiflorum* L.	1	1.69
	22	*Paris polyphylla* Sm.	1	1.69
	23	*Ranunculus sceleratus* L.	2	3.39
	24	*Rheum australe* D.Don	2	3.39
	25	*Solanum nigrum* L.	3	5.08
	26	*Tagetes erecta* L.	1	1.69
	27	*Tridax procumbens* L.	2	3.39

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
Category 2	1	*Citrus × limon* (L.) Osbeck	1	9.09
	2	*Dactylorhiza hatagirea* (D.Don) Soó	1	9.09
	3	*Malus domestica* (Suckow) Borkh.	1	9.09
	4	*Phyllanthus emblica* L.	1	9.09
	5	*Pontederia crassipes* Mart.	1	9.09
	6	*Solanum nigrum* L.	1	9.09
	7	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	1	9.09
Category 3	1	*Aconitum heterophyllum* Wall. ex Royle	1	2.08
	2	*Allium humile* Kunth	1	2.08
	3	*Aloe vera* (L.) Burm.f.	1	2.08
	4	*Angelica glauca* Edgew.	1	2.08
	5	*Asparagus racemosus* Willd.	1	2.08
	6	*Carum carvi* L.	1	2.08
	7	*Cassia fistula L.*	1	2.08
	8	*Citrus × limon* (L.) Osbeck	1	2.08
	9	*Euhorbia hirta* L.	1	2.08
	10	*Euphorbia thymifolia* L.	1	2.08
	11	*Mentha spicata* L.	1	2.08
	12	*Ocimum americanum* L.	1	2.08
	13	*Paris polyphylla* Sm.	1	2.08
	14	*Phyllanthus amarus* Schumach. & Thonn.	1	2.08
	15	*Phyllanthus emblica* L.	2	4.17
	16	*Pontederia crassipes* Mart.	1	2.08
	17	*Solanum nigrum* L.	2	4.17
	18	*Syzygium cumini* (L.) Skeels	1	2.08
	19	*Terminalia bellirica* (Gaertn.) Roxb.	2	4.17
	20	*Terminalia chebula* Retz.	2	4.17
	21	*Trachyspermum ammi* (L.) Sprague	1	2.08
	22	*Trigonella foenum-graecum* L.	1	2.08
	23	*Vachellia nilotica* subsp. *indica* (Benth.) Kyal. & Boatwr.	1	2.08

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
Category 4	1	*Boerhavia diffusa* L.	1	2.13
	2	*Cajanus cajan* (L.) Huth	1	2.13
	3	*Calotropis procera* (Aiton) W.T.Aiton	1	2.13
	4	*Cannabis sativa* L.	1	2.13
	5	*Carica papaya* L.	1	2.13
	6	*Cucumis sativus* L.	1	2.13
	7	*Musa* × *paradisiaca* L.	1	2.13
	8	*Pontederia crassipes* Mart.	1	2.13
	9	*Psidium guajava* L.	1	2.13
	10	*Saccharum officinarum* L.	1	2.13
	11	*Solanum nigrum* L.	1	2.13
	12	*Wrightia tinctoria* (Roxb.) R.Br.	2	4.26
Category 5	1	*Ajuga integrifolia* Buch.-Ham. ex D.Don	1	1.85
	2	*Azadirachta indica* A.Juss.	1	1.85
	3	*Berberis lycium* Royle	1	1.85
	4	*Catharanthus roseus* (L.) G.Don	1	1.85
	5	*Hellenia speciosa* (J.Koenig) S.R.Dutta	1	1.85
	6	*Clerodendrum infortunatum* L.	1	1.85
	7	*Glycyrrhiza glabra* L.	1	1.85
	8	*Gymnema sylvestre* (Retz.) R.Br. ex Sm.	1	1.85
	9	*Malus domestica* (Suckow) Borkh.	1	1.85
	10	*Mangifera indica* L.	1	1.85
	11	*Mikania micrantha* Kunth	1	1.85
	12	*Origanum majorana* L.	1	1.85
	13	*Phyllanthus emblica* L.	1	1.85
	14	*Stevia rebaudiana* (Bertoni) Bertoni	1	1.85
	15	*Syzygium cumini* (L.) Skeels	1	1.85
	16	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	1	1.85

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
Category 6	1	*Bergenia ciliata* (Haw.) Sternb.	1	8.33
	2	*Solanum nigrum* L.	1	8.33
Category 7	1	*Achyranthes aspera* L.	2	5.00
	2	*Aconitum heterophyllum* Wall. ex Royle	1	2.50
	3	*Aegle marmelos* (L.) Corrêa	1	2.50
	4	*Calotropis procera* (Aiton) W.T.Aiton	1	2.50
	5	*Camellia sinensis* (L.) Kuntze	1	2.50
	6	*Cassia fistula L.*	2	5.00
	7	*Cynodon dactylon* (L.) Pers.	1	2.50
	8	*Euhorbia hirta* L.	2	5.00
	9	*Euphorbia thymifolia* L.	2	5.00
	10	*Euphorbia tithymaloides* L.	1	2.50
	11	*Lantana camara* L.	1	2.50
	12	*Morus alba* L.	1	2.50
	13	*Ocimum americanum* L.	1	2.50
	14	*Quercus leucotrichophora* A. Camus	2	5.00
	15	*Ricinus communis* L.	1	2.50
	16	*Tridax procumbens* L.	2	5.00
	17	*Wrightia tinctoria* (Roxb.) R.Br.	1	2.50
Category 8	1	*Achyranthes aspera* L.	1	1.69
	2	*Berberis lycium* Royle	2	3.39
	3	*Calotropis procera* (Aiton) W.T.Aiton	2	3.39
	4	*Cascabela thevetia* (L.) Lippold	1	1.69
	5	*Cissus quadrangularis* L.	2	3.39
	6	*Colocasia esculenta* (L.) Schott	2	3.39
	7	*Curcuma longa* L.	2	3.39
	8	*Euphorbia tithymaloides* L.	1	1.69
	9	*Juglans regia* L.	1	1.69

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
	10	*Malus domestica* (Suckow) Borkh.	2	3.39
	11	*Nyctanthes arbor-tristis* L.	2	3.39
	12	*Ocimum americanum* L.	1	1.69
	13	*Ocimum tenuiflorum* L.	2	3.39
	14	*Phyllanthus emblica* L.	1	1.69
	15	*Piper betle* L.	1	1.69
	16	*Prunus cerasoides* Buch.-Ham. ex D.Don	1	1.69
	17	*Solanum virginianum* L.	1	1.69
	18	*Thelypteris subpubescens* (Blume) K.Iwats.	1	1.69
	19	*Trigonella foenum-graecum* L.	2	3.39
	20	*Vitex negundo* L.	2	3.39
	21	*Wrightia tinctoria* (Roxb.) R.Br.	2	3.39
Category 9	1	*Aconitum heterophyllum* Wall. ex Royle	1	0.78
	2	*Albizia lebbeck* (L.) Benth.	1	0.78
	3	*Allium sativum* L.	1	0.78
	4	*Barleria prionitis* L.	2	1.56
	5	*Calotropis procera* (Aiton) W.T.Aiton	1	0.78
	6	*Cannabis sativa* L.	1	0.78
	7	*Cenchrus purpureus* (Schumach.) Morrone	1	0.78
	8	*Cinnamomum verum* J.Presl	1	0.78
	9	*Clerodendrum infortunatum* L.	2	1.56
	10	*Cordia myxa* L.	1	0.78
	11	*Curcuma longa* L.	2	1.56
	12	*Cyanthillium cinereum* (L.) H.Rob.	1	0.78
	13	*Fritillaria cirrhosa* D.Don	1	0.78
	14	*Glycyrrhiza glabra* L.	1	0.78
	15	*Justicia adhatoda* L.	3	2.34

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
	16	*Mentha spicata* L.	1	0.78
	17	*Nerium oleander* L.	2	1.56
	18	*Nyctanthes arbor-tristis* L.	4	3.13
	19	*Ocimum americanum* L.	1	0.78
	20	*Ocimum tenuiflorum* L.	4	3.13
	21	*Piper longum* L.	1	0.78
	22	*Piper nigrum* L.	1	0.78
	23	*Quercus leucotrichophora* A. Camus	1	0.78
	24	*Solanum virginianum* L.	2	1.56
	25	*Streblus asper* Lour.	2	1.56
	26	*Swertia chirayita* (Roxb.) H.Karst.	1	0.78
	27	*Taxus wallichiana* Zucc.	2	1.56
	28	*Terminalia bellirica* (Gaertn.) Roxb.	2	1.56
	29	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	6	4.69
	30	*Tinospora crispa* (L.) Hook.f. & Thomson	2	1.56
	31	*Zingiber officinale* Roscoe	1	0.78
Category 10	1	*Amomum subulatum* Roxb.	1	10.00
	2	*Artabotrys hexapetalus* (L.f.) Bhandari	1	10.00
	3	*Bacopa monnieri* (L.) Wettst.	1	10.00
	4	*Convolvulus prostratus* Forssk.	2	20.00
	5	*Nardostachys jatamansi* (D.Don) DC.	1	10.00
	6	*Piper betle* L.	1	10.00
Category 11	1	*Acmella oleracea* (L.) R.K.Jansen	1	2.94
	2	*Mentha spicata* L.	1	2.94
	3	*Piper betle* L.	1	2.94
	4	*Piper nigrum* L.	1	2.94
	5	*Solanum nigrum* L.	1	2.94
	6	*Syzygium aromaticum* (L.) Merr. & L.M.Perry	1	2.94
	7	*Taxus wallichiana* Zucc.	2	5.88

Ailment Category	S No.	Medicinal Plants	Plant Informants	FL
Category 12	1	*Achyranthes aspera* L.	3	15.00
	2	*Argemone mexicana* L.	1	5.00
	3	*Crinum asiaticum* L.	2	10.00
	4	*Ficus benghalensis* L.	1	5.00
	5	*Ocimum tenuiflorum* L.	3	15.00
	6	*Psidium guajava* L.	1	5.00
Category 13	1	*Acanthus ilicifolius* L.	1	10.00
	2	*Asparagus racemosus* Willd.	2	20.00
	3	*Boerhavia diffusa* L.	2	20.00
	4	*Bombax ceiba* L.	1	10.00
	5	*Cynodon dactylon* (L.) Pers.	2	20.00
	6	*Hibiscus rosa-sinensis* L.	2	20.00
	7	*Piper betle* L.	1	10.00
	8	*Thalictrum foliolosum* DC.	2	20.00
Category 14	1	*Calotropis procera* (Aiton) W.T.Aiton	1	25.00
	2	*Cascabela thevetia* (L.) Lippold	1	25.00
	3	*Launaea procumbens* (Roxb.) Ramayya & Rajagopal	2	50.00
Category 15	1	*Aloe vera* (L.) Burm.f.	1	7.14
	2	*Ocimum tenuiflorum* L.	1	7.14
	3	*Rheum australe* D.Don	1	7.14
	4	*Solanum virginianum* L.	1	7.14
	5	*Trigonella foenum-graecum* L.	1	7.14
	6	*Wrightia tinctoria* (Roxb.) R.Br.	1	7.14




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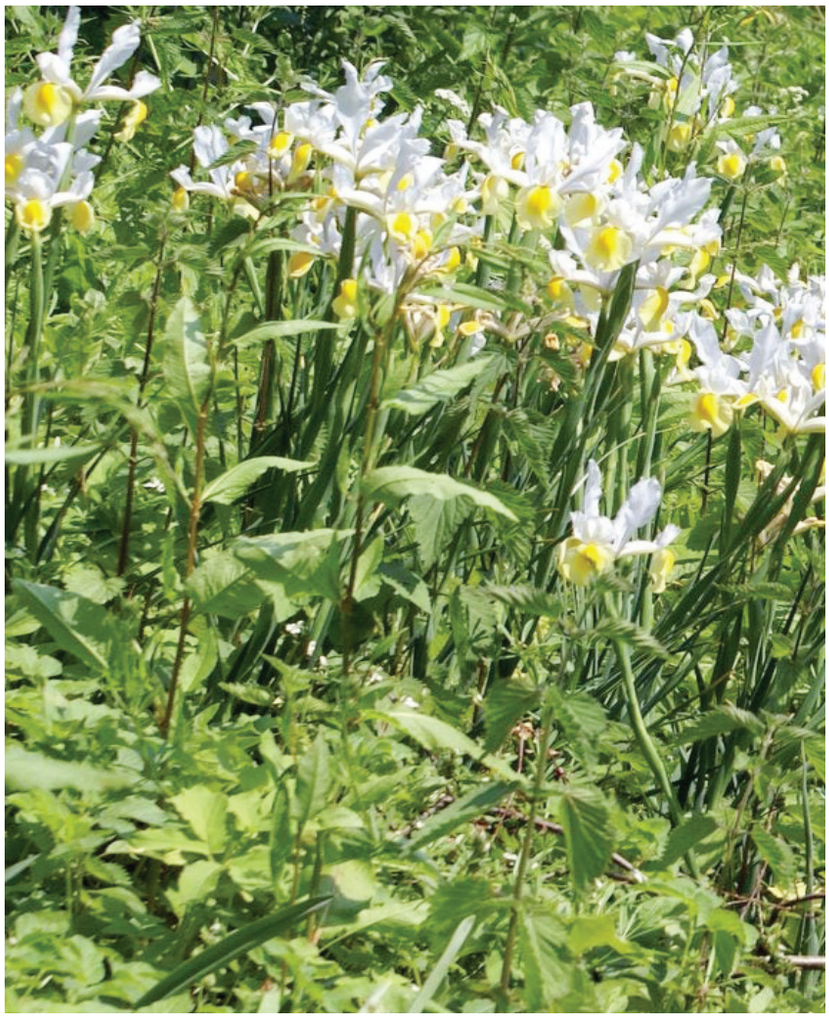
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Appendix I

Respondents List

Uttarakhand

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
1	1.1.1.1	Mr. Kishor Singh	72	Male	Graduate	Uttarkashi	Bagori	Constructor
2	1.1.1.2	Mr. Bishan Singh	56	Male	Post Graduate	Uttarkashi	Bagori	LIC Service
3	1.1.1.3	Mrs. Chhiring Doma	52	Female	Illiterate	Uttarkashi	Bagori	Sheep Rearing
4	1.1.1.4	Mr. Khushi Ram	65	Male	Graduate	Uttarkashi	Bagori	Sheep Rearing
5	1.1.1.5	Mrs. Urmila	54	Female	Illiterate	Uttarkashi	Bagori	Homemaker
6	1.1.1.6	Mr. Vishal	27	Male	Graduate	Uttarkashi	Bagori	Farmer
7	1.1.2.1	Mr. Jayendra Bhatt	63	Male	Illiterate	Uttarkashi	Sangrali	Farmer
8	1.1.2.2	Mr. Jai Krishna	62	Male	Illiterate	Uttarkashi	Sangrali	Farmer
9	1.1.2.3	Mr. Vimleshwar Bhatt	61	Male	Illiterate	Uttarkashi	Sangrali	Farmer
10	1.1.2.4	Mr. Damodar Semwal	62	Male	Illiterate	Uttarkashi	Sangrali	Farmer
11	1.1.3.1	Mr. Vijay Singh Rana	60	Male	Middle	Uttarkashi	Purali	Farmer
12	1.1.3.2	Mrs. Seema	32	Female	Primary	Uttarkashi	Purali	Homemaker
13	1.1.3.3	Mr. Ravinder Singh Rana	48	Male	Intermediate	Uttarkashi	Purali	Farmer
14	1.1.3.4	Mrs. Manju	35	Female	Illiterate	Uttarkashi	Purali	Homemaker
15	1.1.3.5	Mrs. Leela Devi	44	Female	Illiterate	Uttarkashi	Purali	Homemaker
16	1.1.3.6	Mrs. Shakuntala Devi	38	Female	Intermediate	Uttarkashi	Purali	Homemaker
17	1.1.3.7	Mrs. Lakshmi	37	Female	Middle	Uttarkashi	Purali	Homemaker
18	1.2.1.1	Mr. Yashveer Singh Rana	62	Male	Graduate	Haridwar	Alawarpur	Farmer
19	1.2.2.1	Mr. Mir Hamja Gujjar	28	Male	Post Graduate	Haridwar	Kunaun Chaur	Farmer

Uttar Pradesh

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
20	2.1.1.1	Mr. Daya Ram	61	Male	Middle	Bulandshahr	Choupur	Farmer
21	2.2.1.1	Mr. Pramod Mishra	55	Male	Post Graduate	Kanpur	Bithoor nagar panchayat	Farmer
22	2.2.2.1	Mr. Chhote Lal Nishad	60	Male	Intermediate	Kanpur	Ramel Nagar	Farmer
23	2.2.2.2	Mr. Ram Sanjeevan Nishad	38	Male	Graduate	Kanpur	Ramel Nagar	Farmer
24	2.2.2.3	Mr. Gyan Singh Yadav	62	Male	Middle	Kanpur	Ramel Nagar	Farmer
25	2.2.3.1	Mr. Samar Singh Bhadauriya	75	Male	Middle	Kanpur	Sawaijpur	Farmer
26	2.2.4.1	Mr. Rameshwar Kushwaha	70	Male	Graduate	Kanpur	Jajmau	Healer
27	2.3.1.1	Mr. Pappu Nishad	30	Male	High School	Raebareli	Kateri	Sailor (Navik)
28	2.3.1.2	Mr. Dinesh Kumar	40	Male	High School	Raebareli	Kateri	Farmer
29	2.3.2.1	Mr. Shivmurti Tiwari	56	Male	High School	Raebareli	Dalmau	Farmer
30	2.3.2.2	Mrs. Vimla Verma	35	Female	Middle	Raebareli	Dalmau	Farmer
31	2.3.2.3	Mrs. Aasha Devi	60	Female	Illiterate	Raebareli	Dalmau	Farmer
32	2.3.2.4	Mr. Virendra Kumar Verma	55	Male	Intermediate	Raebareli	Dalmau	Farmer
33	2.3.2.5	Mrs. Maya Devi	38	Female	Illiterate	Raebareli	Dalmau	Farmer
34	2.3.2.6	Mr. Uttam Maurya	25	Male	Post Graduate	Raebareli	Dalmau	Farmer
35	2.3.2.7	Mr. Arjun Kumar Yadav	38	Male	Intermediate	Raebareli	Dalmau	Farmer
36	2.3.2.8	Mrs. Babli Devi	62	Female	Illiterate	Raebareli	Dalmau	Farmer
37	2.3.2.9	Mrs. Bhanumati	38	Female	Middle	Raebareli	Dalmau	Farmer
38	2.4.1.1	Mr. Sahibe Alam	21	Male	Middle	Prayagraj	Rampur	Labour
39	2.4.1.2	Mr. Muhammad Shabeer	30	Male	High School	Prayagraj	Rampur	Tailor
40	2.4.1.3	Mr. Ram Ji Prajapati	38	Male	Middle	Prayagraj	Rampur	Farmer
41	2.4.2.1	Mr. Prem Singh	49	Male	Illiterate	Prayagraj	Baraut	Farmer

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
42	2.4.3.1	Mr. Narad	40	Male	Illiterate	Prayagraj	Bhawari	Farmer
43	2.4.4.1	Mr. Vrindavan	36	Male	Illiterate	Prayagraj	Naini	Labour
44	2.4.5.1	Mr. Rajendra Bharti	50	Male	Illiterate	Prayagraj	Shankerpur	Farmer
45	2.5.1.1	Mr. Ranvijay Singh	35	Male	High School	Mirzapur	Putlighar	Farmer
46	2.5.1.2	Mr. Vikas Dubey	35	Male	Intermediate	Mirzapur	Putlighar	Farmer
47	2.5.2.1	Mr. Rohit Bind	18	Male	High School	Mirzapur	Kali Khoh	Tea shop
48	2.5.3.1	Mr. Banshidhar	63	Male	High School	Mirzapur	Bindhayshetra	Farmer
49	2.5.3.2	Mr. Sheetala Prasad Soni	57	Male	Illiterate	Mirzapur	Bindhayshetra	Farmer
50	2.5.4.1	Mr. Lal Baba	55	Male	Illiterate	Mirzapur	Akodhi	Mata Ki Seva
51	2.5.5.1	Mr. Vishnu Sharan (Mahendra Nath)	76	Male	Illiterate	Mirzapur	Badagaon (Kusmi)	Priest
52	2.5.6.1	Mrs. Bhangiya Devi Nishad	75	Female	Illiterate	Mirzapur	Ojhalapul	Labour
53	2.5.6.2	Mrs. Sushila Devi	68	Female	Illiterate	Mirzapur	Ojhalapul	Labour
54	2.5.6.3	Mrs. Urmila Yadav	48	Female	Illiterate	Mirzapur	Ojhalapul	Labour
55	2.5.6.4	Mrs. Munni Devi Sonkar	52	Female	Illiterate	Mirzapur	Ojhalapul	Labour
56	2.5.6.5	Mrs. Meherjiya Devi Nishad	72	Female	Illiterate	Mirzapur	Ojhalapul	Labour
57	2.5.7.1	Mr. Sant Kumar Singh	38	Male	High School	Mirzapur	Aanandpur	Farmer
58	2.6.1.1	Mr. Subhash Chandra	79	Male	Intermediate	Varanasi	Hariharpur	Farmer
59	2.6.1.2	Mr. Sunil Kumar Bhardwaj	52	Male	Intermediate	Varanasi	Hariharpur	Farmer
60	2.6.2.1	Mr. Nitish Yadav	20	Male	Graduate	Varanasi	Ramgaon	Student
61	2.6.2.2	Mr. Munnu Yadav	50	Male	High School	Varanasi	Ramgaon	Farmer
62	2.6.2.3	Mr. Ram Shakal Yadav	45	Male	Illiterate	Varanasi	Ramgaon	Farmer
63	2.6.2.4	Mr. Raj Kumar Yadav	26	Male	High School	Varanasi	Ramgaon	Farmer
64	2.6.2.5	Mr. Surya Mishra	28	Male	Post Graduate	Varanasi	Ramgaon	Farmer
65	2.7.1.1	Mr. Rajesh Prasad Nishad	47	Male	Intermediate	Ballia	Kotwa	Fisherman
66	2.7.1.2	Mr. Mahendra Paswan	62	Male	Middle	Ballia	Kotwa	Fisherman
67	2.7.2.1	Mr. Vijay Shankar	40	Male	Graduate	Ballia	Narishpurnath	Farmer
68	2.7.2.2	Mr. Ramcheej Chaudhary	67	Male	Primary	Ballia	Narishpurnath	Farmer

Bihar

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
69	3.1.1.1	Mr. Dharmveer Prasad	40	Male	Middle	Patna	Barh	Farmer
70	3.1.1.2	Mr. Vidyapati Yadav	53	Male	Middle	Patna	Barh	Farmer
71	3.1.1.3	Dr. Agnesh Kumar	52	Male	Graduate	Patna	Barh	MBBS, DCH
72	3.1.1.4	Mr. Rajiv Ranjan Kumar	50	Male	Intermediate	Patna	Barh	Farmer & LIC
73	3.1.1.5	Mr. Pramod Kumar	38	Male	Intermediate	Patna	Barh	Farmer
74	3.1.1.6	Mr. Prakash Kumar	23	Male	Intermediate	Patna	Barh	Farmer
75	3.1.1.7	Mrs. Asha Devi	65	Female	Middle	Patna	Barh	Farmer
76	3.1.1.8	Mrs. Shashikala Devi	45	Female	High School	Patna	Barh	Farmer
77	3.1.1.9	Mrs. Manisha Kumari	23	Female	Graduate	Patna	Barh	Farmer
78	3.1.1.10	Mrs. Doli Kumari	18	Female	High School	Patna	Barh	Farmer
79	3.1.1.11	Mr. Kausehendra Prasad	44	Male	Middle	Patna	Barh	Farmer
80	3.1.1.12	Mrs. Soni Devi	28	Female	High School	Patna	Barh	Farmer
81	3.1.1.13	Mrs. Rinki Kumari	30	Female	Primary	Patna	Barh	Farmer
82	3.1.1.14	Mrs. Deepmala Devi	32	Female	Middle	Patna	Barh	Farmer
83	3.1.1.15	Mrs. Malti devi	38	Female	High School	Patna	Barh	Farmer
84	3.1.1.16	Mrs. Bacchi Devi	65	Female	Primary	Patna	Barh	Farmer
85	3.1.1.17	Mrs. Lalmuni Devi	35	Female	Primary	Patna	Barh	Farmer
86	3.1.1.18	Mr. Ashok Mandal	35	Male	High School	Patna	Barh	Farmer
87	3.1.1.19	Mrs. Munni Devi	50	Female	Primary	Patna	Barh	Farmer
88	3.1.1.20	Mrs. Gyanti Devi	45	Female	Middle	Patna	Barh	Farmer
89	3.1.1.21	Mrs. Usha Devi	50	Female	Primary	Patna	Barh	Farmer
90	3.1.1.22	Mrs. Rinku Kumari	35	Female	Intermediate	Patna	Barh	Farmer

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
91	3.1.1.23	Mrs. Rinku Devi	38	Female	High School	Patna	Barh	Farmer
92	3.1.1.24	Mrs. Kumari Rakshisama	48	Female	Primary	Patna	Barh	Farmer
93	3.1.1.25	Mrs. Reeta Devi	60	Female	Primary	Patna	Barh	Farmer
94	3.1.1.26	Mr. Pankaj Ram	28	Male	Middle	Patna	Barh	Farmer & Labour
95	3.1.1.27	Mr. Wishawar Mahto	60	Male	High School	Patna	Barh	Farmer
96	3.1.1.28	Mr. Gautam Kumar	22	Male	High School	Patna	Barh	Machuwara
97	3.1.2.1	Mr. Baleshwar Rai	65	Male	Primary	Patna	Patna	Farmer
98	3.1.2.2	Mrs. Geeta Devi	65	Female	Primary	Patna	Patna	Farmer
99	3.1.2.3	Mr. Rangnath Krishan Chandra	55	Male	Middle	Patna	Patna	Machuwara & Farmer
100	3.1.2.4	Mr. Trivendra Rai	60	Male	Middle	Patna	Patna	Machuwara
101	3.1.2.5	Mr. Surendra Prasad Gupta	62	Male	Primary	Patna	Patna	Farmer
102	3.1.2.6	Mr. Santosh Kumar Goutam	46	Male	Intermediate	Patna	Patna	Building, Constructor
103	3.2.1.1	Mr. Ram Prakash Saran	50	Male	High School	Munger	Bahachauki	Farmer
104	3.2.1.2	Mr. Ambika Prasad Yadav	55	Male	Intermediate	Munger	Bahachauki	Farmer
105	3.2.1.3	Mr. Sujeet Kumar Singh	50	Male	Middle	Munger	Bahachauki	Farmer
106	3.3.1.1	Mr. Vijay Singh	35	Male	Primary	Bhagalpur	Bhagalpur	Farmer
107	3.3.1.2	Mr. Chandrika Prasad Yadav	45	Male	Graduate	Bhagalpur	Bhagalpur	Farmer
108	3.3.1.3	Mrs. Ranjan Devi	53	Female	Primary	Bhagalpur	Bhagalpur	Farmer
109	3.3.1.4	Mr. Bhawesh Kumar	41	Male	Graduate	Bhagalpur	Bhagalpur	Farmer
110	3.3.1.5	Mrs. Aruna Devi	46	Female	Middle	Bhagalpur	Bhagalpur	Farmer
111	3.3.1.6	Mr. Nand Kishor Singh	45	Male	Intermediate	Bhagalpur	Bhagalpur	Farmer

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
112	3.3.1.7	Mrs. Anita Devi	56	Female	Middle	Bhagalpur	Bhagalpur	Farmer
113	3.3.1.8	Mrs. Gyanwati Devi	48	Female	Primary	Bhagalpur	Bhagalpur	Farmer
114	3.3.2.1	Mr. Pramod kumar Yadav	46	Male	Intermediate	Bhagalpur	Farka	Farmer
115	3.3.2.2	Mr. Vidyadhar Yadav	39	Male	High School	Bhagalpur	Farka	Farmer
116	3.3.2.3	Mr. Diwakar Mandal	32	Male	Intermediate	Bhagalpur	Farka	Farmer
117	3.3.2.4	Mr. Umesh Kumar Yadav	53	Male	High School	Bhagalpur	Farka	Farmer
118	3.3.2.5	Dr. Niranjan Kumar Mandal	48	Male	Graduate	Bhagalpur	Farka	Doctor
119	3.3.2.6	Mr. Rishikesh Singh	34	Male	Middle	Bhagalpur	Farka	Farmer
120	3.3.2.7	Mr. Ram Lakhan Yadav	46	Male	High School	Bhagalpur	Farka	Farmer
121	3.3.2.8	Mr. Gautam Kumar Goswami	29	Male	Middle	Bhagalpur	Farka	Farmer
122	3.3.2.9	Mr. Shiv Kumar Mandal	29	Male	High School	Bhagalpur	Farka	Farmer
123	3.3.2.10	Mr. Vinod Kumar Yadav	28	Male	Primary	Bhagalpur	Farka	Farmer
124	3.4.1.1	Mr. Chhotu Kumar	20	Male	Intermediate	Saran	Rivalganj	Machuwara
125	3.4.1.2	Mr. Raja Kumar	22	Male	High School	Saran	Rivalganj	Machuwara
126	3.4.1.3	Mr. Shyam Bihari	55	Male	Primary	Saran	Rivalganj	Machuwara
127	3.4.1.4	Mr. Ajay Kumar Yadav	44	Male	Post Graduate	Saran	Rivalganj	Farmer, Mushroom Cultivator
128	3.4.1.5	Mr. Yadunandan Singh	74	Male	Primary	Saran	Rivalganj	Farmer, Mushroom Cultivator
129	3.4.1.6	Mr. Rajnath Rai	40	Male	High School	Saran	Rivalganj	Farmer
130	3.4.1.7	Mr. Tuntun Kumar Yadav	56	Male	Middle	Saran	Rivalganj	Farmer
131	3.4.1.8	Mr. Vijay Kishor Chourasia	53	Male	Illiterate	Saran	Rivalganj	Farmer

Jharkhand

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
132	4.1.1.1	Mrs. Sonika Mosmat	56	Female	Illiterate	Sahibganj	Sahibganj	Labour
133	4.1.1.2	Mr. Munna Kumar Paswan	19	Male	Intermediate	Sahibganj	Sahibganj	Farmer
134	4.1.1.3	Mr. Harish Chandra Mandal	36	Male	Intermediate	Sahibganj	Sahibganj	Farmer
135	4.1.1.4	Mrs. Sarita Kumari Poddar	53	Female	High School	Sahibganj	Sahibganj	Farmer
136	4.1.1.5	Mr. Chandrasekhar Singh	52	Male	Graduate	Sahibganj	Sahibganj	Farmer
137	4.1.1.6	Mr. Lakshman Yadav	76	Male	Middle	Sahibganj	Sahibganj	Farmer
138	4.1.1.7	Mr. Ram Sorain	25	Male	Middle	Sahibganj	Sahibganj	Farmer
139	4.1.1.8	Mr. Chamru Paharia	60	Male	Illiterate	Sahibganj	Sahibganj	Farmer
140	4.1.1.9	Mr. Davdas Paharia	19	Male	Middle	Sahibganj	Sahibganj	Farmer
141	4.1.1.10	Mr. Dhanesh Paharia	26	Male	Illiterate	Sahibganj	Sahibganj	Farmer

West Bengal

S. No.	Respondent No.	Name	Age	Sex	Education	District	Village/Locality	Occupation
142	5.1.1.1	Mrs. Parvati Devi	53	Female	Primary	Hoogley	Chakbansariya	Housewife
143	5.2.1.1	Mrs. Bapi Mistry	45	Female	Middle	Nadiya	Bhatpura	Houseewife
144	5.3.1.1	Mr. Subol Ghosh	56	Male	Primary	Murshidabad	Govindaram Pur	Milkman
145	5.3.1.2	Mr. Bapu Ghosh	46	Male	Primary	Murshidabad	Govindaram Pur	Milkman
146	5.3.1.3	Mr. Ashok Kumar Mandol	52	Male	Middle	Murshidabad	Farakka Bairage	Agriculture
147	5.4.1.1	Mrs. Mariyam Bibi	58	Female	Primary	24 Pargana	Diamond Harbour	Housewife



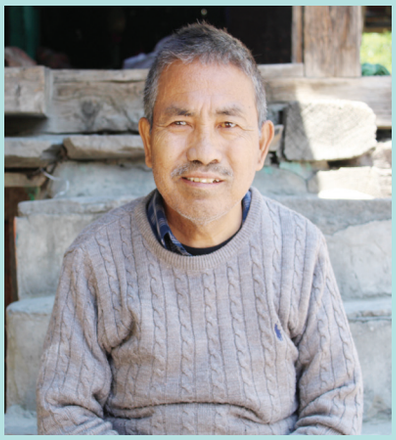


Appendix II

Photographs of Respondents



(1.1.1.1) Kishor Singh



(1.1.1.2) Bishan Singh



(1.1.1.3) Chhirimg Doma



(1.1.1.4) Khushi Ram



(1.1.1.5) Urmila



(1.1.1.6) Vishal



(1.1.2.1) Jayendra Bhatt



(1.1.2.2) Jai Krishna



(1.1.2.3) Vimleshwar Bhatt



(1.1.2.4) Damodar Semwal



(1.1.3.1) Vijay Singh Rana



(1.1.3.2) Seema



(1.1.3.3) Ravindra singh rana



(1.1.3.4) Manju



(1.1.3.5) Leela Devi



(1.1.3.6) Shakuntala Devi



(1.1.3.7) Laxmi



(1.2.1.1) Yashveer Singh Rana



(1.2.2.1) Hamza Gujjar



(2.1.1.1) Daya Ram



(2.2.1.1) Pramod Mishra



(2.2.2.1) Chhote Lal Nishad



(2.2.2.2) Ram Sanjeevan Nishad



(2.2.2.3) Gyan Singh Yadav



(2.2.3.1) Samar Singh Bhadauriya



(2.2.4.1) Rameshwar Kushwaha



(2.3.1.1) Pappu Nishad



(2.3.1.2) Dinesh Kumar



(2.3.2.1) Shivmurti Tiwari



(2.3.2.2) Vimla Verma



(2.3.2.3) Asha Devi



(2.3.2.4) Virendra Kumar Verma



(2.3.2.5) Maya Devi



(2.3.2.6) Uttam Maurya



(2.3.2.7) Arjun Kumar Yadav



(2.3.2.8) Babli Devi



(2.3.2.9) Bhanumati



(2.4.1.1) Sahibe Alam



(2.4.1.2) Muhammad Shabeer



(2.4.1.3) Ramji Prajapati



(2.4.2.1) Prem Singh



(2.4.3.1) Narad



(2.4.4.1) Vrindavan



(2.4.5.1) Rajendra Bharti



(2.5.1.1) Ranvijay Singh



(2.5.1.2) Vikas Dubey



(2.5.2.1) Rohit Bind



(2.5.3.1) Banshidhar



(2.5.3.2) Sheetala Prasad Soni



(2.5.4.1) Lal Baba



(2.5.5.1) Vishnu Sharan



(2.5.6.1) Bhangiya Devi Nishad



(2.5.6.2) Sushila Devi



(2.5.6.3) Urmila Yadav



(2.5.6.4) Munni Devi Sonkar



(2.5.6.5) Maharazia Devi Nishad



(2.5.7.1) Sant Kumar SIngh



(2.6.1.1) Subhash Chandra



(2.6.1.2) Sunil Kumar Bharadwaj



(2.6.2.1) Nitish Yadav



(2.6.2.2) Munnu Yadav



(2.6.2.3) Ram Shakal Yadav



(2.6.2.4) Rajkumar Yadav



(2.6.2.5) Surya Mishra



(2.7.1.1) Rajesh Prashad Nishad



(2.7.1.2) Mahendra Paswan



(2.7.2.1) Vijay Shankar



(2.7.2.2) Ramcheej Chaudhary



(3.1.1.1) Dharmveer Prasad



(3.1.1.2) Vidyapati Yadav



(3.1.1.4) Rajiv Ranjan Kumar



(3.1.1.5) Pramod Kumar



(3.1.1.7) Asha Devi



(3.1.1.17) Lalmuni Devi



(3.1.1.18) Ashok Mandal



(3.1.1.27) Wishawar Mahto



(3.2.1.1) Ram Prakash Saran



(3.2.1.2) Ambika Prasad Yadav



(3.2.1.3) Sujeet Kumar Singh



(3.3.1.1) Vijay Singh



(3.3.1.2) Chandrika Prasad Yadav



(3.3.1.3) Ranjan Devi



(3.3.1.4) Bhawesh Kumar



(3.3.1.5) Aruna Devi



(3.3.1.6) Nand Kishor Singh



(3.3.1.7) Anita Devi



(3.3.1.8) Gyanwati Devi



(3.3.2.1) Pramod kumar Yadav



(3.3.2.2) Vidyadhar Yadav



(3.3.2.3) Diwakar Mandal



(3.3.2.4) Umesh Kumar Yadav



(3.3.2.5) Niranjan Kumar Mandal



(3.3.2.6) Rishikesh Singh



(3.3.2.7) Ram Lakhan Yadav



(3.3.2.8) Gautam Kumar Goswami



(3.3.2.9) Shiv Kumar Mandal



(3.3.2.10) Vinod Kumar Yadav



(3.4.1.1) Baleshwar Rai



(3.4.1.2) Geeta Devi



(3.4.1.5) Surendra Prasad Gupta



(3.5.1.2) Raja Kumar



(3.5.1.4) Ajay Kumar Yadav



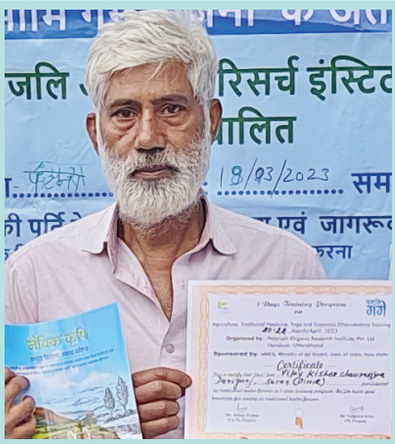
(3.5.1.5) Yadunandan Singh



(3.5.1.6) Rajnath Rai



(3.5.1.7) Tuntun Kumar Yadav



(3.5.1.8) Vijay Kishor Chourasia



(4.1.1.3) Sonika Mosmat



(4.1.1.4) Munna Kumar Paswan



(4.1.1.5) Harish Chandra Mandal



(4.1.1.7) Chandrasekhar Singh



(4.1.1.8) Lakshman Yadav



(5.1.1.1) Parvati Devi



(5.2.1.1) Bapi Mistry



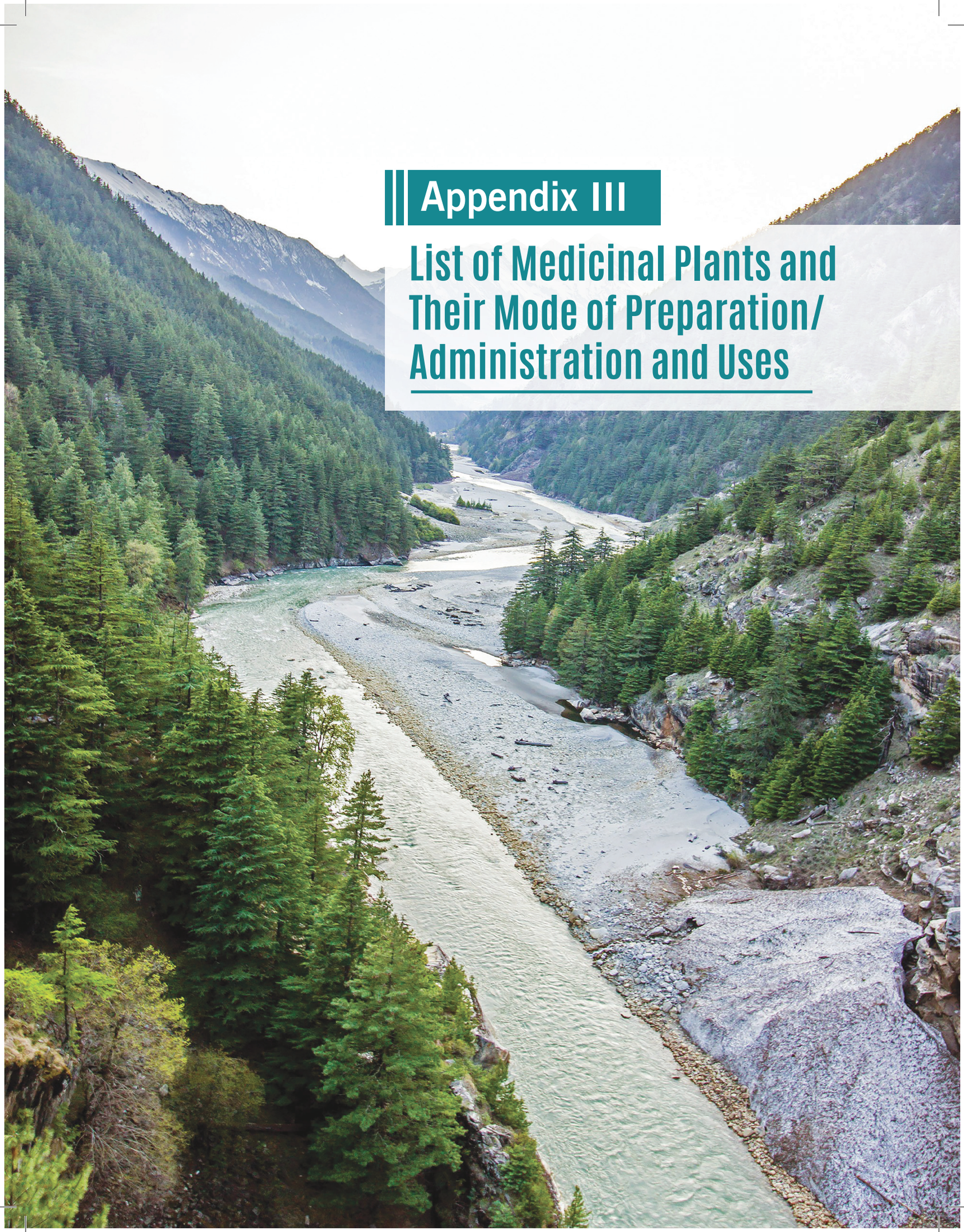
(5.3.1.1) Subol Ghosh



(5.3.1.3) Ashok Kumar Mandol



(5.4.1.1) Mariyam Bibi



Appendix III

List of Medicinal Plants and Their Mode of Preparation/ Administration and Uses

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
1	*Acanthus ilicifolius* L.	शितशूलक: दृढपत्र:	Kya	Acanthaceae	Shrub	Root	Use the paste for three days, along with 2-5 Kali Mirch and boiled rice	Lactation
2	*Achyranthes aspera* L.	अपामार्गक: खरकणिश:	Latjira, Chirchita	Amaranthaceae	Herb	Whole plant	Decoction of the whole plant is given orally for renal pain, Roots are shocked overnight and taken its paste the next morning, Stem is used as a toothbrush in toothache, the leaf extract is used externally for eye diseases, and paste for skin problems, wearing roots garland in the neck for goiter	Chronic Renal Pain, Piles, Toothache, Eye disease, Ear & Throat disease, Boil, Eczema, Goiter or Tonsil
3	*Acmella oleracea* (L.) R.K.Jansen	कोणांशबिम्बक: संवेदन:	Ninai	Asteraceae	Herb	Flower	Chewed	Mouth Ulcer
4	*Aconitum heterophyllum* Wall. ex Royle	वत्सनाभिका घुणेष्टा	Atish	Ranunculaceae	Herb	Root	A decoction is taken orally	Stomachache, Fever, Diarrhea
5	*Aegle marmelos* (L.) Corrêa	बिल्वक: त्रिपर्ण:	Bel	Rutaceae	Tree	Fruit	Directly eating	Diarrhea & Dysentery
6	*Ajuga integrifolia* Buch.-Ham. ex D.Don	अरोमप्रदलकम् नीलकण्ठम्	Neelkanthi	Lamiaceae	Herb	Root	A decoction is taken orally	Diabetes
7	*Albizia lebbeck* (L.) Benth.	मृदुसुमकम् शिरीषम्	Siris	Fabaceae	Tree	Leaves	Take 2-3 tablespoon leaves along with *Justicia adhatoda* and *Solanum virginianum* in 250 ml water, after having decoction cow milk is taken necessary and do not take water	Asthma
8	*Allium humile* Kunth	गन्धालुक: लघुक:	Pangre	Amaryllidaceae	Herb	Leaves	Cooked and taken as vegetable	Stomachache
9	*Allium sativum* L.	गन्धालुक: रसोन:	Lehsun	Amaryllidaceae	Herb	Bulb	A decoction is prepared with two Cloves and mustard oil and taken	Cough

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
10	*Aloe vera* (L.) Burm.f.	मज्जपत्रकम् अङ्गारसुमम्	Ghritkumari	Asphodelaceae	Herb	Leaves	Leaves sap taken directly for Stomachache, used as a halwa (a sweet dish) in headache	Stomachache, Headache
11	*Amomum subulatum* Roxb.	सुगन्धिक: बृहदेल:	Badi Elaichi	Zingiberaceae	Herb	Fruit	Directly taken in nerve blockage	Nervous disease
12	*Angelica glauca* Edgew.	चोरक: ग्रन्थिपर्ण:	Choru	Apiaceae	Herb	Root	Powder, decoction taken orally	Stomachache
13	*Argemone mexicana* L.	शूलसम्पुटक: पीतसार:	Satyanashi	Papaveraceae	Herb	Whole plant	Whole plant juice or latex or extract of fried seeds applied externally for skin problems, leaves and latex applied externally for eyes	Wounds, Eczema, Skin disease, Boil, Skin Inflammation, Eye disease
14	*Arisaema propinquum* Schott	गोनसक: दृढवृन्त:	Faran	Araceae	Herb	Root	Paste applied topically	Wound or boil healing
15	*Artabotrys hexapetalus* (L.f.) Bhandari	अङ्कुशाटक: षड्दल:	Madanmast	Annonaceae	Tree	Leaves	Taken leaves extract	Mental disorder
16	*Asparagus racemosus* Willd.	शतावरक: अधरकण्ट:	Botareen, Satawar	Asparagaceae	Herb	Root	Juice is taken orally for sexual disorders, powder mixed with milk and taken for Stomachache, powder along with *Boerhavia diffusa* mixed with cow milk and taken twice daily for Spermatorrhoea	Sexual disorders, Stomachache, Spermatorrhoea
17	*Azadirachta indica* A.Juss.	पिचुमर्दक: निम्ब:	Neem	Meliaceae	Tree	Leaves	Juice is taken in water for diabetes, Leaves are boiled in water and take bath for psoriasis	Sugar, Psoriasis
18	*Bacopa monnieri* (L.) Wettst.	ब्राह्मिका मेध्या	Bambaki Bati	Plantaginaceae	Herb	Whole plant	Raw crushed and given	Brain tonic
19	*Barleria prionitis* L.	सैरेयक: पीतसुम:	Kala-bansa, Piyabansa	Acanthaceae	Shrub	Leaves	Decoction	Asthma, Cough

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
20	*Berberis lycium* Royle	पीतद्रुक: सितकाण्ड:	Chotar, Chhakeer	Berberidaceae	Shrub	Root	The extract or decoction is used orally	Pain, Joint pain, Arthritis, Diabetes
21	*Bergenia ciliata* (Haw.) Sternb.	अश्मभेदक: पक्ष्मपत्र:	Pattharchatta, Silphoda	Saxifragaceae	Herb	Root	A decoction is used orally	Stone
22	*Boerhavia diffusa* L.	पुनर्नवक: रक्तकाण्ड:	Gadapunna	Nyctaginaceae	Herb	Root	Decoction for jaundice, powder with cow milk taken twice daily for spermatorrhoea, a homogenized mixture of its roots along with the leaves of *Piper betle* and the flower of *Hibiscus rosa-sinensis* useful in spermatorrhoea, root decoction for fever	Jaundice, Spermatorrhoea, Impotency, Fever
23	*Bombax ceiba* L.	तूलफलकम् रक्तपुष्पम्	Semal	Malvaceae	Tree	Root	Juice or decoction is used orally	Sexual disorder
24	*Cajanus cajan* (L.) Huth	आढकी गोलेरू:	Arhar	Fabaceae	Shrub	Leaves	Crushed leaves are taken with water	Jaundice
25	*Calotropis procera* (Aiton) W.T.Aiton	अर्क: जाम्बवसुम:	Aank, Madar	Apocynaceae	Shrub	Leaves, Flower, Latex	Flower powder is taken with honey for cough, leaves powder is taken orally in piles, latex is applied over the scorpion-affected parts, heated leaves with oil applied on painful parts, latex is applied on boils, leaves taken with Banana fruits are useful in jaundice, leaves are dipped in warm sesame oil and wrapped in the affected area of the skin	Cough, Haemorrhoids (Piles), Scorpion sting, Joint pain, Arthritis, Jaundice, Boil, Wounds, Eczema
26	*Camellia sinensis* (L.) Kuntze	पेयपत्रकम् कुण्ठिपत्रम्	Tea leaf	Theaceae	Tree	Leaves	A decoction is taken orally	Diarrhea & Dysentery

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
27	*Cannabis sativa* L.	भङ्गिका पीतसपत्रा	Bhang	Cannabaceae	Shrub	Leaves, Seed	Leaves and seed powder and paste are taken orally in fever and jaundice, leaves paste is applied topically to the skin	Fever, Jaundice, Boil, Cut
28	*Carica papaya* L.	कुम्भकर्कटिका कृष्णेरू:	Papita	Caricaceae	Tree	Fruit	Juice taken orally	Jaundice
29	*Carum carvi* L.	जीरकम् कपिलम्	Jangali Jeera	Apiaceae	Herb	Seed	Paste taken orally	Stomachache
30	*Cascabela thevetia* (L.) Lippold	शातकुम्भक: सिक्थपत्र:	Peeli kaner	Apocynaceae	Tree	Leaves, Latex	Latex applied on affected body part in toothache and boil, leaves paste with mustard oil applied on scorpion affected part	Toothache, Boil, Scorpion sting
31	*Cassia fistula* L.	हेमपुष्पकम् कृतमाल्यम्	Amaltaas	Fabaceae	Tree	Root	A decoction is used orally	Stomachache, Diarrhea, Dysentery
32	*Catharanthus roseus* (L.) G.Don	सदापुष्पकम् पाटलाक्षम्	Sadabahar	Apocynaceae	Herb	Leaves	A decoction is taken orally	Sugar
33	*Cenchrus purpureus* (Schumach.) Morrone	वज्रान्नक: वृन्ताकक्रम:	Naai Ghas	Poaceae	Herb	Leaves	A decoction is taken orally	Fever
34	*Cinnamomum verum* J.Presl	सुगन्धिजातकम् त्वक्	Daalchini	Lauraceae	Tree	Leaves	A decoction is taken orally	Cough
35	*Cissus quadrangularis* L.	वज्रवल्लिका अस्थिसंहारी	Hadjod	Vitaceae	Climber	Stem	A decoction is taken orally	Joint pain, arthritis
36	*Citrus × limon* (L.) Osbeck	निम्बुक: तुण्डफल:	Lemon	Rutaceae	Tree	Fruit	Juice pore in water then drink for Stomachache, decoction along with *Aloe vera* and black salt useful in blood pressure	Stomachache, Blood pressure

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
37	*Clerodendrum infortunatum* L.	मायापुष्पकम् घनरोमशम्	Bandgoon, Bhoongteeta, Bhatesh	Lamiaceae	Shrub	Stem, Leaves, Root	Leaves decoction and tooth brushing by stem useful in sugar, leaves lightly warmed and applied over the body during fever	Sugar, Fever, Cooling and soothing of skin
38	*Colocasia esculenta* (L.) Schott	नतपत्रकम् पिण्डालुकम्	Arbi	Araceae	Herb	Whole Plant	Regular use of plant	Joint pain, Arthritis
39	*Convolvulus prostratus* Forssk.	कम्बुमालक: सितपुष्प:	Shankpushpi	Convolvulaceae	Herb	Whole Plant	Use as a tonic	Nervous disease, Mental disorder
40	*Cordia myxa* L.	श्लेष्मातक: अरोमप्रदल:	Lasoda	Boraginaceae	Tree	Leaves	A decoction is taken orally	Cough
41	*Crinum asiaticum* L.	सुदर्शनक: लूताभ:	Lattar	Amaryllidaceae	Herb	Leaves	Decoction of leaves put in ear as ear drop	Ear, Throat disease
42	*Cucumis sativus* L.	चिर्भिटक: त्रपुष:	Cucumber	Cucurbitaceae	Climber	Fruit	Directly taken	Jaundice
43	*Curcuma longa* L.	हरिद्रका पीतरागा	Haldi	Zingiberaceae	Herb	Rhizome	A decoction alone or along with *Zingiber officinale* and *Piper nigrum*, Powder taken with jaggery	Cough, Cold, Joint pain, Arthritis
44	*Cyanthillium cinereum* (L.) H.Rob.	नीलाभक: स्वापकर:	Sahdevi	Asteraceae	Herb	Whole Plant	A decoction is taken orally	Fever
45	*Cynodon dactylon* (L.) Pers.	दूर्विका शतपर्वा	Dhurva, Doobghas	Poaceae	Herb	Whole Plant, Root	Paste is applied locally in bleeding, Plant juice is taken before sunrise daily in women's problems, root powder is taken orally in piles, roots are soaked overnight and made paste in the morning then taken in spermatorrhoea	Stop bleeding in all types, Menstrual problems, Piles, Spermatorrhoea, and any other unpredictive disease
46	*Dactylorhiza hatagirea* (D.Don) Soó	अङ्गुलमूलार्चम् वक्रपुटम्	Salampanja, Hattha Jadi	Orchidaceae	Herb	Tuber	Paste is applied locally	Wound, Blood Clotting, Boil

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
47	*Datura stramonium* L.	धत्तूरक: कृष्णेरु:	Dhatura	Solanaceae	Herb	Leaves	Leaves with warm oil applied on affected part	Boil, Eczema
48	*Eclipta prostrata* (L.) L.	भृङ्गराजक: केश्य:	Ghamira	Asteraceae	Herb	Whole Plant	Plant paste or cooked with black pepper and mustard oil useful	Boil, Swelling
49	*Euphorbia hirta* L.	क्षीरिका रोमशा	Godan	Euphorbiaceae	Herb	Whole Plant	Taken powder	Stomachache, Diarrhea, Dysentery
50	*Euphorbia neriifolia* L.	क्षीरिका सर्पासपत्रा	Seej	Euphorbiaceae	Shrub	Root	Cooked in oil and paste applied on affected area	Boils, Eczema
51	*Euphorbia thymifolia* L	क्षीरिका बहुपत्रा	Dudhi	Euphorbiaceae	Herb	Whole plant	Decoction is taken orally	Stomachache, Diarrhea, Dysentery
52	*Euphorbia tithymaloides* L.	क्षीरिका वक्रकाण्डा	Naagdon	Euphorbiaceae	Shrub	Leaves, Stem	Chewed the leaves in piles, make a garland and wear to disabled children	Piles, Physical disorder
53	*Ficus benghalensis* L.	पयोवृक्षक: वट:	Bargad	Moraceae	Tree	Fruit	Taken fruit	Eye disease
54	*Fritillaria cirrhosa* D.Don	पलकन्दक: प्रतानिक:	Jangali Lahsun	Liliaceae	Herb	Bulb	Directly taken or eaten	Asthma
55	*Glycyrrhiza glabra* L.	यष्टिमधुक: अरोमश:	Mulethi	Fabaceae	Tree	Leaves, Root	Make a decoction of its leaves along with *Piper longum*, *Ocimum tenuiflorum*, and *Zingiber officinale* in cough, root decoction in diabetes	Asthma, Sugar
56	*Gymnema sylvestre* (Retz.) R.Br. ex Sm.	अजशृङ्गिका गुडमारा	Gudmaar	Apocynaceae	Climber	Leaves	Directly taken	Sugar
57	*Hellenia speciosa* (J.Koenig) S.R.Dutta	सर्पासपत्रकम् रक्तसपत्रम्	Insulin	Costaceae	Herb	Leaves	Crushed leaves taking with water	Sugar
58	*Hibiscus rosa-sinensis* L.	जपाका ओड्रका	Gudhal	Malvaceae	Shrub	Flower	Taken flower buds daily	Spermatorrhoea, Lactation





S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
59	*Holoptelea integrifolia* (Roxb.) Planch.	चिरबिल्वक: दीप्तपत्र:	Papari, Chilbil	Ulmaceae	Tree	Leave, Bark, Fruit	A paste of leaf and bark is applied locally for skin disease, cooked fruit powder in oil is used on the affected parts of skin	Skin disease, Boil, Eczema
60	*Ipomoea carnea* subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin	कुटरणिका सुषिरकाण्डा	Behaya	Convolvulaceae	Shrub	Leaves	Leaves are wrapped with warm mustard oil on affected part	Pain, Swelling
61	*Juglans regia* L.	अक्षोटक: कर्पराल:	Akhrot	Juglandaceae	Tree	Root	Regular brushing	Toothache
62	*Justicia adhatoda* L.	सिंहास्यकम् वासकम्	Arus	Acanthaceae	Shrub	Leaves	Decoction in cough, make a decoction of 5-8 dried leaves along with the leaves of *Albizia lebbeck* and *Solanum virginianum* in water. After having this cow milk is taken necessary; water is prohibited. This decoction is very useful for asthma. Leaf paste with black pepper and given orally in fever	Asthma, Cough, Fever
63	*Lablab purpureus* (L.) Sweet	वल्लिशाक: वृन्ताकसुम:	Sem	Fabaceae	Climber	Leaves	Paste is applied externally	Boil
64	*Lantana camara* L.	चतूरङ्गिका छत्रक्रमा	Kuri	Verbenaceae	Shrub	Leaves	Leaves are used to smell regularly	Cholera
65	*Launaea procumbens* (Roxb.) Ramayya & Rajagopal	भस्मैकीनक: शयान:	Gobhi Phool	Asteraceae	Herb	Leaves	Leaves extract applied on affected part	Snakebite, Scorpion sting
66	*Malus domestica* (Suckow) Borkh.	गुच्छिसुमकम् सितम्	Seb	Rosaceae	Tree	Fruit	Prepared as a vinegar and taken orally	High Blood pressure (Hypertension), Diabetes, Uric acid (Hyperuricemia), Bone disease, Skin disease (Cut & wounds)

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
67	*Mangifera indica* L.	आम्रक: वासन्त:	Aam	Anacardiaceae	Tree	Leaves	Powder is taken orally	Diabetes
68	*Mentha spicata* L.	पूतिहाका प्रकणिशा	Pudina	Lamiaceae	Herb	Leaves	Leaves are soaked in water then taken	Stomachache, Cough, Mouth Ulcer
69	*Mikania micrantha* Kunth	वेल्लपदकम् लघुमुण्डम्	Bangladeshi Patta	Asteraceae	Climber	Leaves	10-15 leaves crushes and paste applied externally; leaf juice taken in diabetes	Cuts and wound to stop bleeding, Diabetes
70	*Moringa oleifera* Lam.	शिग्रुक: सितपुष्प:	Sahjan	Moringaceae	Tree	Seed	Oil applied externally	Pain, Swelling
71	*Morus alba* L.	तूतक: सितफल:	Shahtoot	Moraceae	Tree	Leaves	Leaves paste applied on affected part	Boil, Piles
72	*Musa* × *paradisiaca* L.	कदलिका पीता	Kela	Musaceae	Tree	Fruit	Direct eating	Jaundice
73	*Nardostachys jatamansi* (D.Don) DC.	जटालक: नलद:	Jatamansi	Caprifoliaceae	Herb	Root	A decoction is taken orally	Epilepsy
74	*Nerium oleander* L.	करवीरक: हयारि:	Safed Kaner	Apocynaceae	Tree	Flower	Bud taken with jaggery	Cough, Asthma
75	*Nyctanthes arbor-tristis* L.	पारिजातक: हरशृङ्गार:	Harsingar, Parijat	Oleaceae	Tree	Leaves, Flower	Leaves decoction useful in fever and joint pain, taking mix decoction along with *Tinospora cordifolia*, *Tinospora crispa* and *Piper nigrum* in the night after meal useful in cough, five leaves boiled in water and take daily or cooked in oil and paste applied for joint pain	Fever, Malaria, Dengue, Cough, Joint pain, Arthritis
76	*Ocimum americanum* L.	सुमञ्जरिका श्वेता	Vijya Tulsi, Tulsi	Lamiaceae	Herb	Whole plant, Leaves	2-3 drops of the distilled extract is given orally for cough or apply on affected area in mouth, 2-3 drops of the extract is mixed in a glass of water and drink for stomachache, paste of whole plant is applied topically on affected area of the skin	Cough, Toothache, Stomachache, Haemorrhoids (Piles), Acne, Pimples

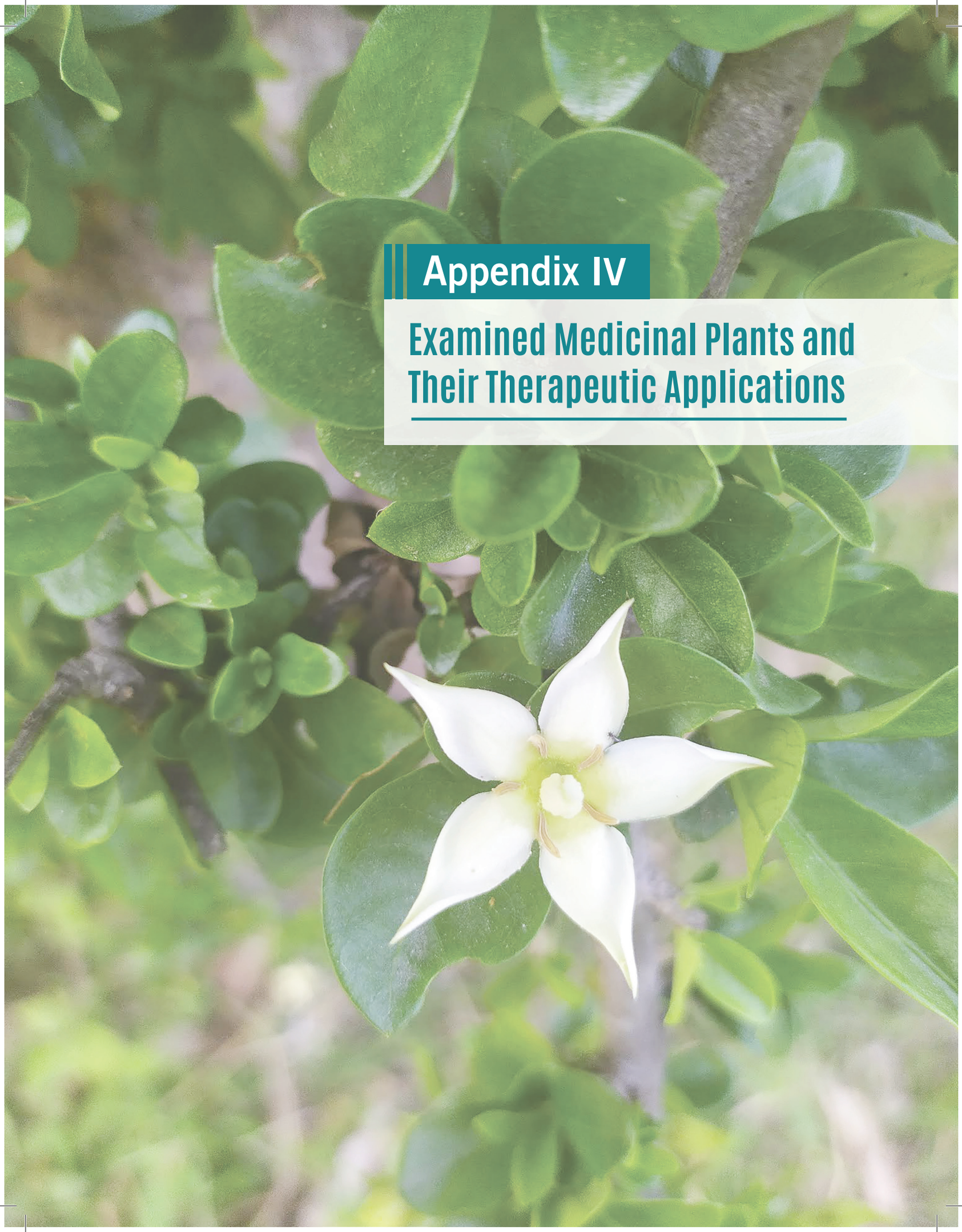
S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
77	*Ocimum tenuiflorum* L.	सुमञ्जरिका रामा	Tulsi	Lamiaceae	Herb	Whole parts, Leaves	Leaves juice with honey is given orally in cough, paste made from whole plant applied topically in pain, 2-3 drops of the distilled extract apply on forehead, paste applied on affected part of skin, make a decoction along with *Curcuma longa*, Milk and *Piper nigrum* in cough, 1-2 drops juice apply on eyes and ears, a decoction used as a tea in fever	Cough, Asthma, Joint pain, Arthritis, Headache, Cold, Leprosy, Eye disease, Ear and throat disease, Fever
78	*Origanum majorana* L.	मरुबक: मृदुरोमश:	Tulsi	Lamiaceae	Herb	Whole plant	2-3 drops of the distilled extract is given orally	Diabetes
79	*Paris polyphylla* Sm.	मुक्तचक्रकम् बहुपत्रम्	Satuwa	Melanthiaceae	Herb	Rhizome	Decoction taken orally in stomachache, paste applied topically in skin	Stomachache, Wound
80	*Phyllanthus amarus* Schumach. & Thonn.	आमलक: अरोमश:	Bhumi Amla	Phyllanthaceae	Herb	Whole plant	Juice is given orally	Hepatic disorder
81	*Phyllanthus emblica* L.	आमलक: धात्रीफल:	Aamla	Phyllanthaceae	Tree	Stem, Leaves, Fruit	Stem powder used in toothache, make a fruits powder (triphala) along with *Terminalia bellirica* and *Terminalia chebula* taken in stomachache, juice use in only summer at morning in blood disorders, fermented fruits juice along with *Syzygium cumini* used in diabeties, fruit powder used in gastric	Toothache, Stomachache, Blood disorder, Sugar, Gastric problems
82	*Piper betle* L.	कणिका ताम्बूला	Kapuri, Paan	Piperaceae	Climber	Leaves	Take homogenized mixture with roots of *Boerhavia diffusa* and flowers of *Hibiscus rosa-sinensis* in Spermatorrhoea, a decoction used in nerve problems, the paste applied on mouth for mouth problems	Spermatorrhoea, Nervous disease, Mouth Ulcer, Toothache

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
83	*Piper longum* L.	कणिका पिप्पली	Peepli	Piperaceae	Climber	Fruit	A decoction alone or along with Cinnamon	Cough
84	*Piper nigrum* L.	कणिका मरिचा	Kali Mirch	Piperaceae	Climber	Seed	Powder is used for gargle, make a decoction alone or along with *Zingiber officinale* and *Curcuma longa* or with *Tinospora cordifolia*, *Tinospora crispa* and *Nyctanthes arbor-tristis* take in night after meal which is helpful in cough	Mouth ulcer, Cough
85	*Pontederia crassipes* Mart.	शतार्धसुमकम् शूनवृन्तम्	Jalkumbhi	Pontederiaceae	Herb	Whole Plant	A decoction is taken orally	Stomachache, Anemia, Jaundice
86	*Prunus cerasoides* Buch.-Ham. ex D.Don	आरुकम् रक्ताण्डम्	Shekharu	Rosaceae	Tree	Bark	Inner bark is used as plaster	Bone fracture
87	*Psidium guajava* L.	दृढेरुक: स्वादुफल:	Amrood	Myrtaceae	Tree	Fruit	Directly eating in jaundice, cooked in fire and taken in nasal problems	Jaundice, Nasal sinus
88	*Quercus leucotrichophora* A. Camus	चिरदारुक: रौप्यपृष्ठ:	Baanj	Fagaceae	Tree	Bark	A decoction is taken orally	Diarrhea, Dysentery, Asthma
89	*Ranunculus sceleratus* L.	काण्डीरक: दीर्घवृन्त:	Latapuri	Ranunculaceae	Herb	Whole plant	Plant juice is applied topically	Boil, Wounds
90	*Rheum australe* D.Don	प्रसुमक्रमक: पीतमूल:	Archa	Polygonaceae	Herb	Root	Paste applied topically	Internal injury, Boil wound
91	*Ricinus communis* L.	एरण्डक: पञ्चाङ्गुल:	Arandi	Euphorbiaceae	Shrub	Seed	Oil applied internally	Piles
92	*Saccharum officinarum* L.	इक्षुक: मधुदण्ड:	Sugarcane	Poaceae	Plant	Stem	Juice is taken orally	Jaundice

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
93	*Solanum nigrum* L.	युक्पञ्चकम् कृष्णफलम्	Makoi, Lalbattu	Solanaceae	Herb	Whole Plant	Paste applied externally in skin problems, a decoction used in liver problems, stomachaches, stone and anemia, use as a vegetable in appetite loss, juice gargling in mouth problems	Boil, Swelling, Jaundice, Anemia, Appetite loss, Mouth Ulcer, Stomachaches, Skin disease, Kidney stone
94	*Solanum virginianum* L.	युक्पञ्चकम् पीतप्रकण्टम्	Bhatkatiya	Solanaceae	Herb	Whole Plant	Taking seeds burning fumes or paste or boiled oil extract used in toothache, root decoction in fever, making a dried leaves decoction along with *Justicia adhatoda* and *Albizia lebbeck* in asthma, after having this the cow milk is taken necessary, a decoction of whole plant applied on scalp for hair problems	Toothache, Asthma, Fever, Hair problem
95	*Stevia rebaudiana* (Bertoni) Bertoni	मधुपत्रकम् तर्कुफलम्	Stevia	Asteraceae	Shrub	Leaves	Chewed	Sugar
96	*Streblus asper* Lour.	शाखोटक: खरपत्र:	Sevda	Moraceae	Tree	Leaves	Taken juice	Fever, Cough
97	*Swertia chirayita* (Roxb.) H.Karst.	घूर्णाभदलकम् तिक्तम्	Kadwai	Gentianaceae	Herb	Whole plant	Decoction is taken orally	Fever
98	*Syzygium aromaticum* (L.) Merr. & L.M.Perry	जम्बुक: लवङ्ग:	Laung	Myrtaceae	Tree	Flower bud	Powder is used for gargle	Mouth ulcer
99	*Syzygium cumini* (L.) Skeels	जम्बुक: राजफल:	Jamun	Myrtaceae	Tree	Fruit	Regular use of fruits or fermented juice alone or along with *Phyllanthus emblica* useful in diabetes and gastric problems	Sugar, Gastric problems

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
100	*Tagetes erecta* L.	झण्डूक: ऋजुमुण्ड:	Genda	Asteraceae	Herb	Leaves	Juice applied directly on cut, wound to stop bleeding	Wound
101	*Taxus wallichiana* Zucc.	शुकाभज: लविपत्र:	Bhotiya Chai, Thuner	Taxaceae	Tree	Bark	A decoction or prepared a tea along with salt, ghee and water	Cough, Cold, Cancer, Mouth Ulcer
102	*Terminalia bellirica* (Gaertn.) Roxb.	वीरक: अक्ष:	Baheda	Combretaceae	Tree	Fruit, Seed	Seed powder is taken orally in cough and cold, make a fruits powder along with *Phyllanthus emblica* and *Terminalia chebula* and taken in stomach problems	Cough, Cold, Gastric problems, Stomachaches
103	*Terminalia chebula* Retz.	वीरक: हरीतक:	Haritaki	Combretaceae	Tree	Fruit	Make a powder along with *Phyllanthus emblica* and *Terminalia bellirica* and taken in stomach problems	Gastric problems, Stomachache
104	*Thalictrum foliolosum* DC.	पीतमूलकम् लघुपत्रम्	Bangla Jadi	Ranunculaceae	Herb	Root	A decoction is taken orally	Urinary Disease, Sexual disorders
105	*Thelypteris subpubescens* (Blume) K.Iwats.	पातिझिर्यावरग: उपरोमान्त:	Hathi Sund	Aspleniaceae	Fern	Whole plant	Paste prepared and applied	Rheumatoid arthritis
106	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	सप्तशिरिका अरोमपत्रा	Giloy	Menispermaceae	Climber	Stem	A decoction alone or along with *Tinospora crispa*, *Nyctanthes arbor-tristis* and *Piper nigrum* take in night after meal	Fever, Asthma, Cough, Cold, Blood pressure, Malaria, Dengue, Sugar
107	*Tinospora crispa* (L.) Hook.f. & Thomson	सप्तशिरिका गण्डिकाण्डा	Guruch	Menispermaceae	Climber	Whole Plant	A decoction is taken orally	Cough, Fever
108	*Trachyspermum ammi* (L.) Sprague	यवानिका तीक्ष्णगन्धा	Ajwain	Apiaceae	Herb	Seed	A decoction is taken orally	Stomachache
109	*Tridax procumbens* L.	सदाहरित्क: शरपत्र:	Bharwa, Khalmuriya	Asteraceae	Herb	Whole Plant	Leaves extract applied externally in the skin, a decoction of whole plant useful in diarrhea	Boil, Eczema, Diarrhea, Dysentery

S. No.	Botanical name	Vedic name	Local name	Family	Habit	Part used	Preparation/administration method	Uses
110	*Trigonella foenum-graecum* L.	मेथिका सुगन्धिबीजा	Maithi	Fabaceae	Herb	Seed	Seed soaked in water and extract taken in morning	Joint pain, arthritis, Headache, Stomachache
111	*Vachellia nilotica* subsp. *indica* (Benth.) Kyal. & Boatwr.	मरन्दवृन्तकम् दृढशूलम्	Keekar	Fabaceae	Tree	Seed	Juice is taken orally	Indigestion
112	*Vitex negundo* L.	निर्गुण्डिका कीटप्रिया	Mevdi	Lamiaceae	Shrub	Leaves	Paste applied on affected part	Joint pain, Arthritis
113	*Wrightia tinctoria* (Roxb.) R.Br.	सितकुटजक: अरोमपत्र:	Indrajao	Apocynaceae	Tree	Leaves, Fruit, Bark	Fruits cooked in oil and paste applied on pain affected parts, a decoction of fruits useful in liver problems, bark decoction in piles, leaves juice applied on hair scalp during hair problems	Joint pain, Arthritis, Jaundice, Liver problems, Piles, Hair problems
114	*Zingiber officinale* Roscoe	आर्द्रकम् सितौष्ठम्	Adrak, Sonth	Zingiberaceae	Herb	Rhizome	A decoction along with *Piper nigrum* and *Curcuma longa* or taken with honey or make a decoction along with *Curcuma longa*	Cough



Appendix IV

Examined Medicinal Plants and Their Therapeutic Applications

Acanthus ilicifolius L.



- The root paste is given with boiling rice and two to five black paper seeds for three days to induce lactation

Achyranthes aspera L.



- The decoction of the whole plant is given orally for renal pain
- The roots are shocked overnight and next morning taken its paste to cure piles
- Stem is used as a toothbrush in toothache
- The leaf extract is used externally for eye diseases
- The leaf paste is used for skin problems
- Wearing roots garland on the neck for tonsil





Aconitum heterophyllum Wall. ex Royle

☞ The root decoction is used orally to treat fever, diarrhoea, and stomachaches

Acmella oleracea (L.) R.K.Jansen



☞ The flowers are chewed in mouth ulcer



Aegle marmelos (L.) Corrêa



☞ The fruits are directly eating in diarrhoea & dysentery





Allium humile Kunth

☞ The leaves are used as a vegetable recipe in stomachaches



Allium sativum L.

☞ A decoction of bulb along with cloves and mustard oil effective against the cough



Ajuga integrifolia Buch.-Ham. ex D.Don

☞ The root decoction is used orally in diabetes

Albizia lebbeck (L.) Benth.





☞ The leaves decoction along with *Justicia adhatoda* and *Solanum virginianum* is very effective in asthma

Aloe vera (L.) Burm.f.



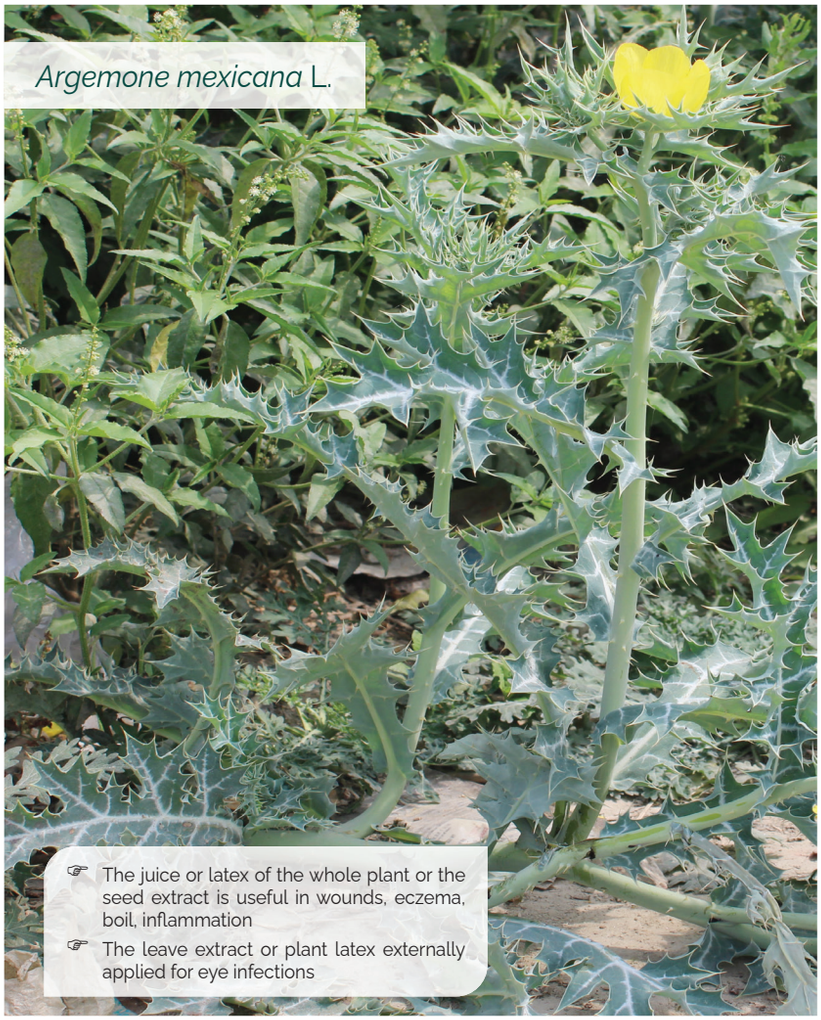
- The leaves sap directly taken in stomachaches
- The sap used as a halwa (a sweet dish) for headache

Amomum subulatum Roxb.



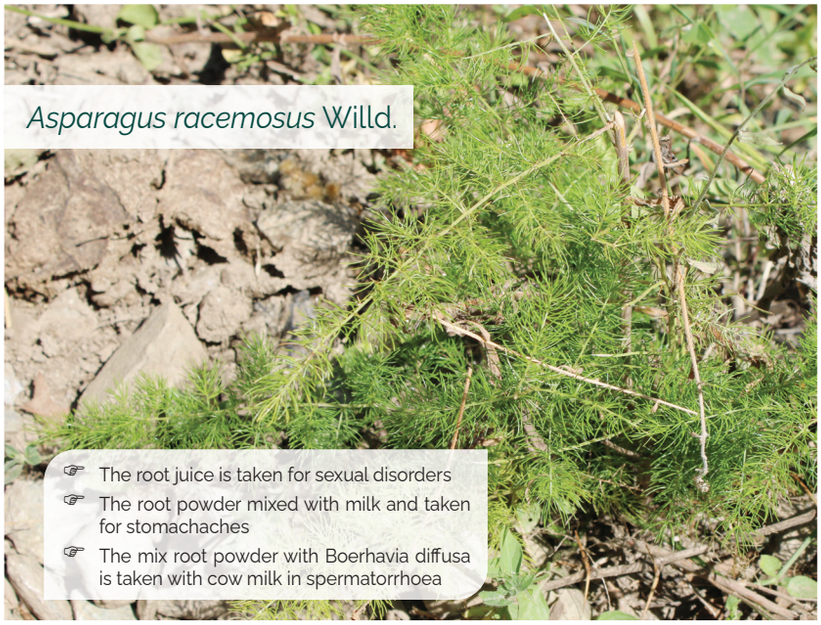
- The fruits are directly taken in nerve blockage

Argemone mexicana L.



- The juice or latex of the whole plant or the seed extract is useful in wounds, eczema, boil, inflammation
- The leave extract or plant latex externally applied for eye infections

Asparagus racemosus Willd.



- The root juice is taken for sexual disorders
- The root powder mixed with milk and taken for stomachaches
- The mix root powder with Boerhavia diffusa is taken with cow milk in spermatorrhoea







Angelica glauca Edgew.

☞ The root powder or decoction is taken orally in stomachaches



Artabotrys hexapetalus (L.f.) Bhandari

☞ The leaf extract taken for mental disorder



Arisaema propinquum Schott

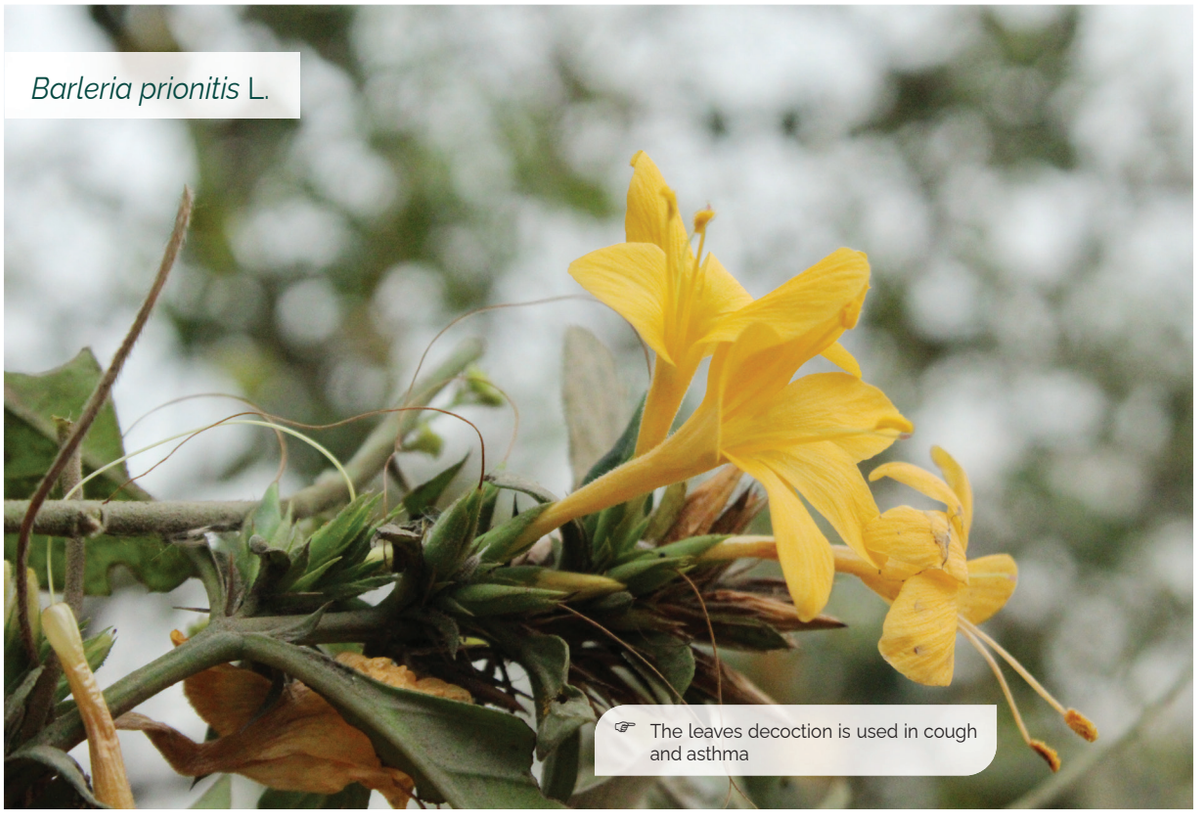
☞ The root paste applied in the wound or boil

Azadirachta indica A.Juss

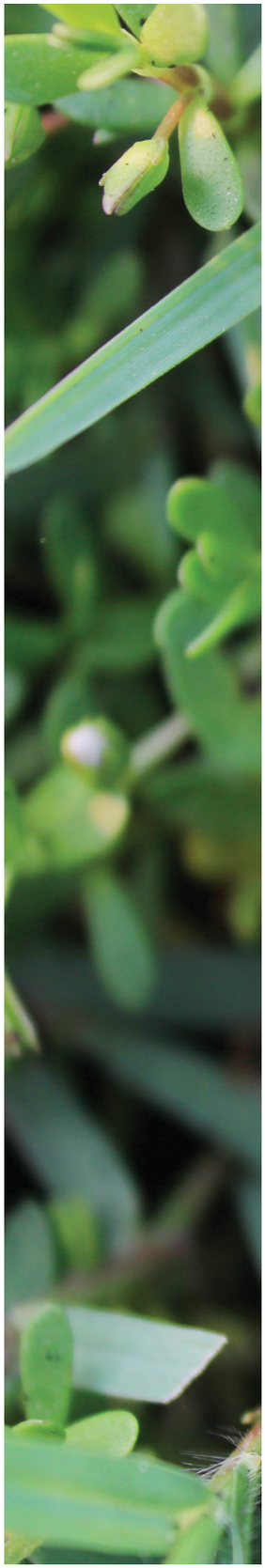


- The juice of leaves is taken for diabetes
- The leaves are boiled in water and taken bath for psoriasis

Barleria prionitis L.



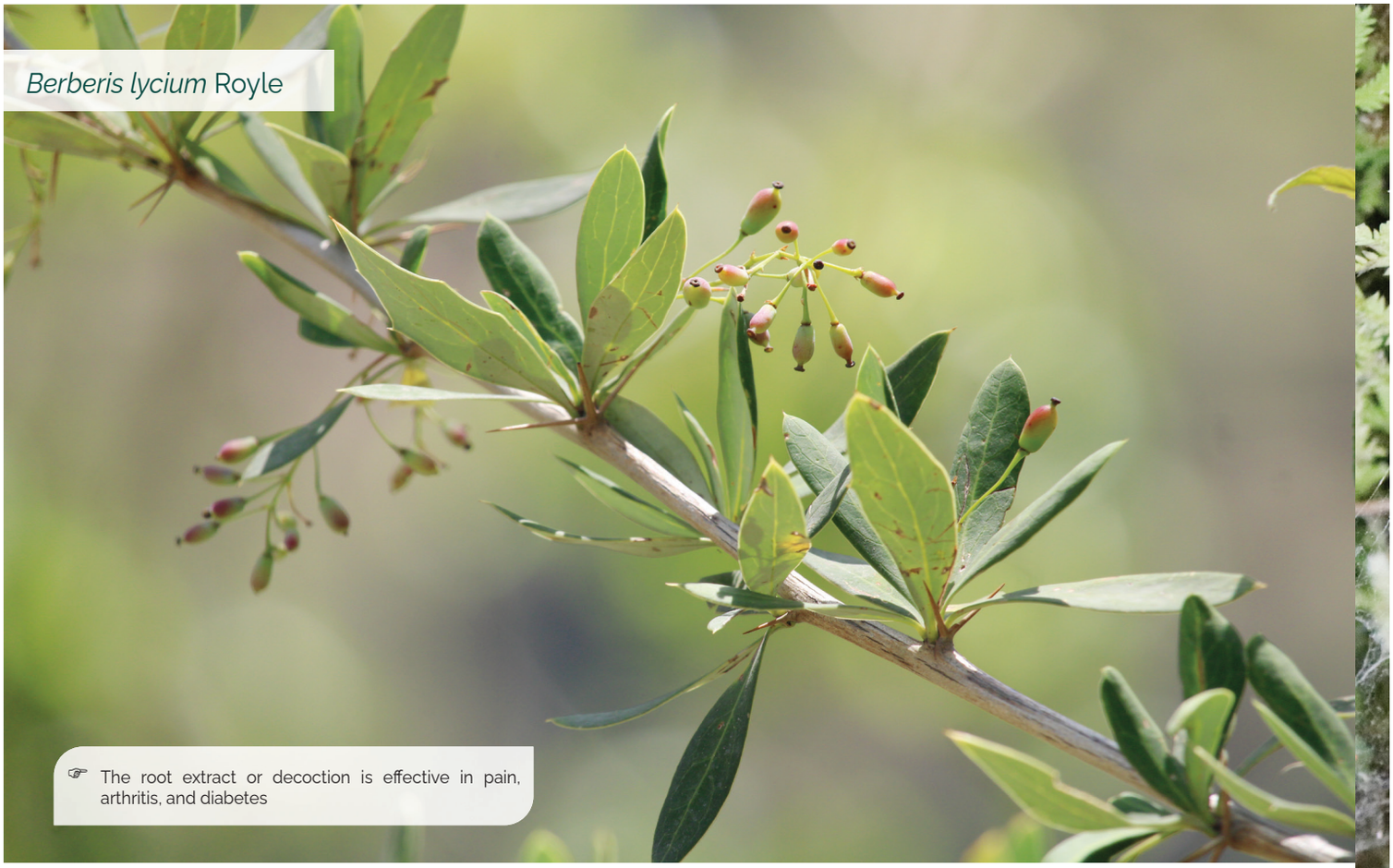
- The leaves decoction is used in cough and asthma





Bacopa monnieri (L.) Wettst.

☞ The raw crushed of the whole plant is taken orally and used as a brain tonic



Berberis lycium Royle

- The root extract or decoction is effective in pain, arthritis, and diabetes



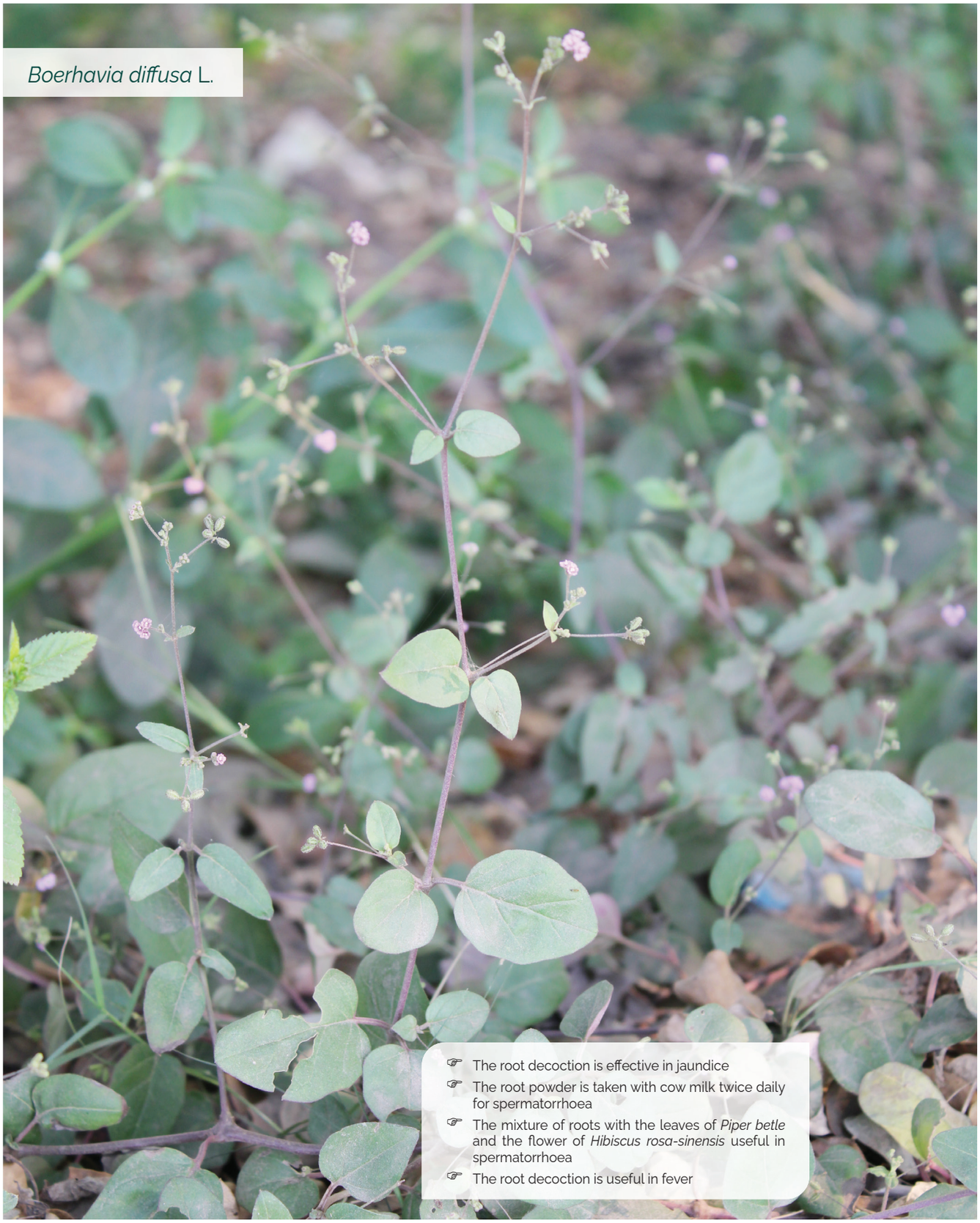
Calotropis procera (Aiton) W.T.Aiton

- The flower powder is taken with honey for cough
- The leaves powder is taken orally in piles
- The latex is applied over the scorpion-affected parts
- The leaves are heated with oil and applied to painful parts
- The latex is applied to boils
- The leaves along with banana fruits useful in jaundice
- The leaves are dipped in warm sesame oil and wrapped in the affected area of the skin in eczema



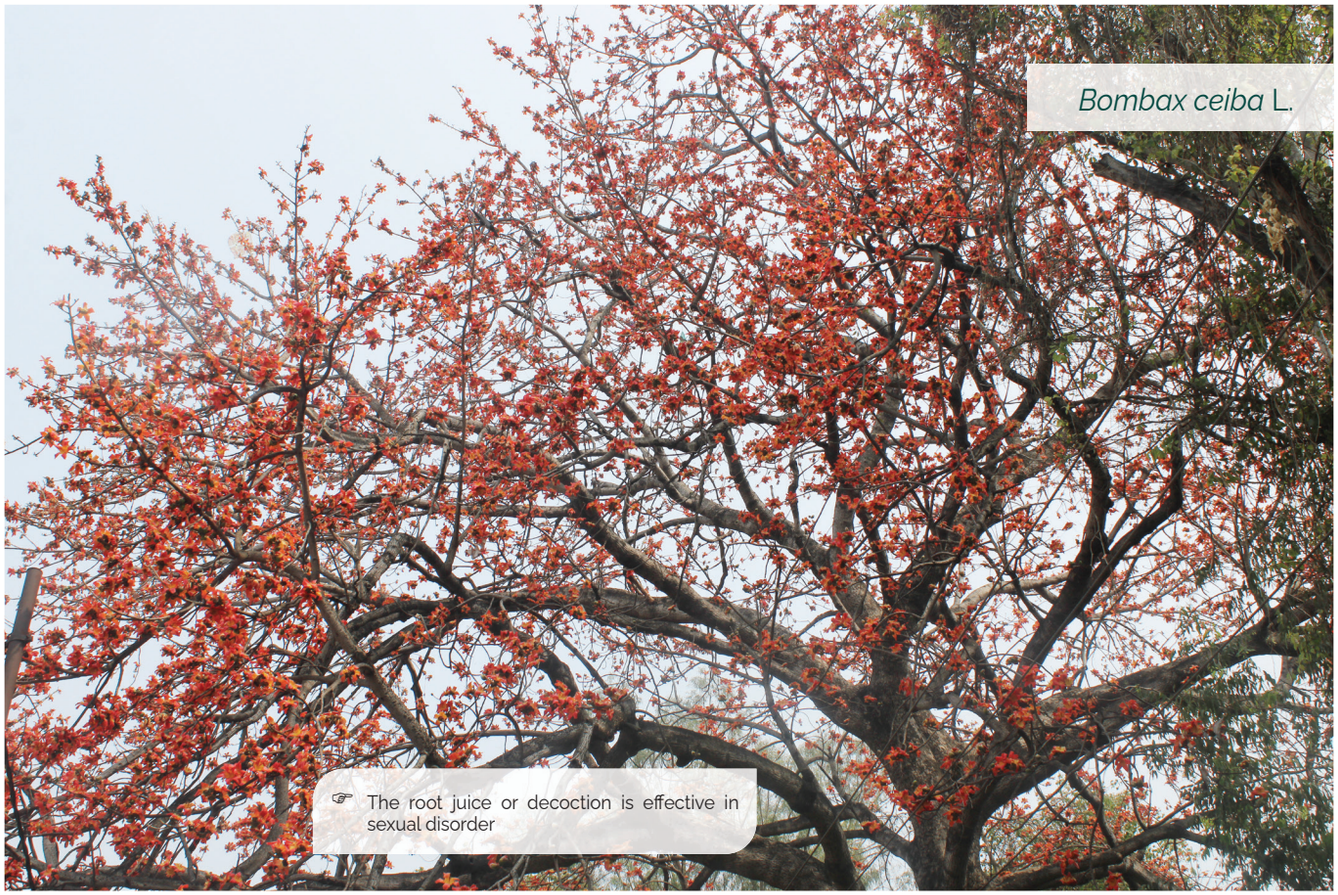
Bergenia ciliata (Haw.) Sternb

☞ The root decoction is effective in stone



Boerhavia diffusa L.

- The root decoction is effective in jaundice
- The root powder is taken with cow milk twice daily for spermatorrhoea
- The mixture of roots with the leaves of *Piper betle* and the flower of *Hibiscus rosa-sinensis* useful in spermatorrhoea
- The root decoction is useful in fever



Bombax ceiba L.

☞ The root juice or decoction is effective in sexual disorder



Camellia sinensis (L.) Kuntze

☞ The decoction of leaves is useful in diarrhoea & dysentery



Cajanus cajan (L.) Huth

☞ The leaves juice taken with water in jaundice





Cannabis sativa L.

- The powder or paste of leaves and seed and taken orally in fever and jaundice
- The leaves paste is applied topically to the boil and cuts



Carica papaya L.

- The fruit juice is taken orally in jaundice



Carum carvi L.

- The seed paste is taken orally in stomachaches



Cascabela thevetia (L.) Lippold

- The latex is applied externally in toothache and boil
- A paste of leaves with mustard oil applied on scorpion affected part



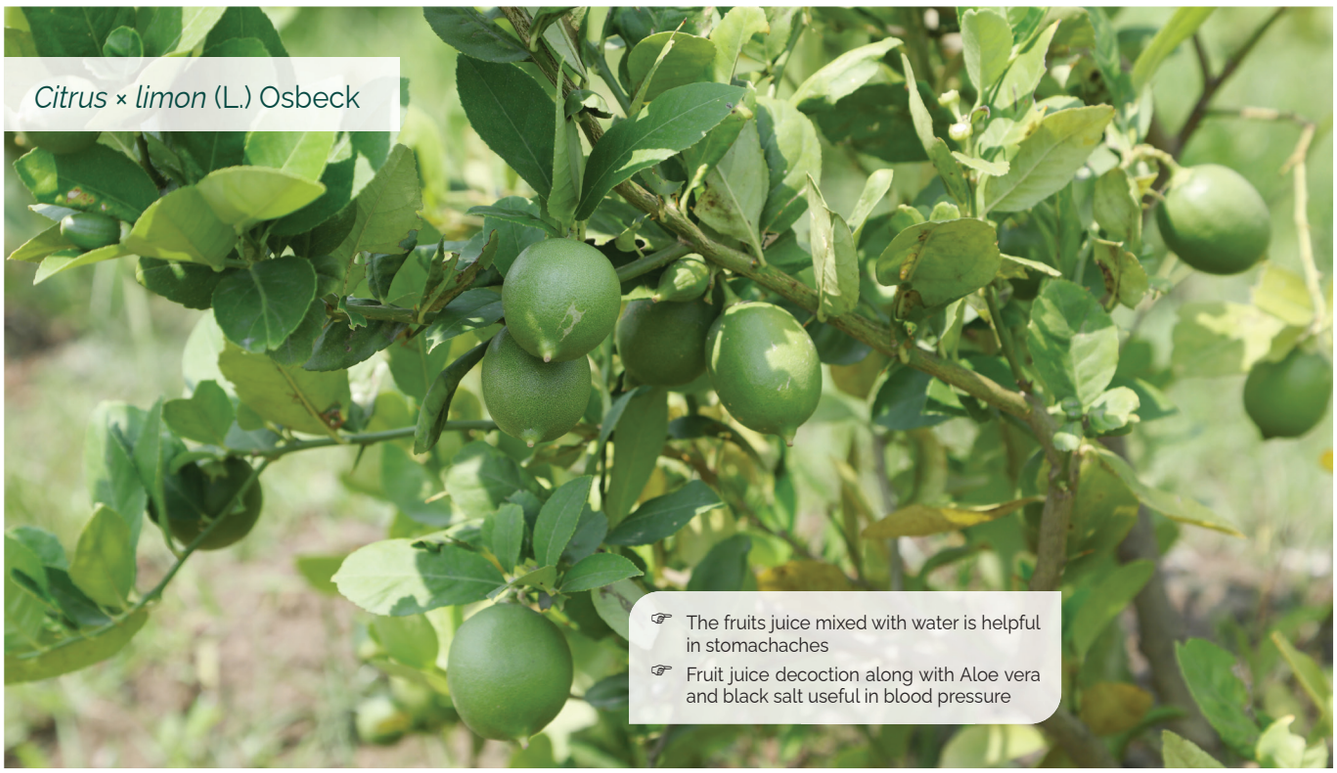
Catharanthus roseus (L.) G.Don

☞ The leaves decoction is useful in diabetes



Cenchrus purpureus (Schumach.) Morrone

- The leaf decoction is useful in fever



Citrus × *limon* (L.) Osbeck

- The fruits juice mixed with water is helpful in stomachaches
- Fruit juice decoction along with Aloe vera and black salt useful in blood pressure



Cassia fistula L.

☞ The root decoction is useful in stomachaches, diarrhoea, and dysentery



Cinnamomum verum J.Presl

☞ The leaves decoction is useful in cough

Cissus quadrangularis L.



☞ The stem decoction is useful in joint pain and arthritis

Colocasia esculenta (L.) Schott



Convolvulus prostratus Forssk





☞ Direct and regular use of whole plant useful in joint pain and arthritis



☞ The whole plant is used as a tonic that helps in nervous diseases and mental disorders

Clerodendrum infortunatum L.



☞ Leaves decoction and tooth brushing by stem useful in diabetes

☞ The leaves are lightly warmed and applied over the body during the fever



Crinum asiaticum L.

- The drops of leaves decoction are useful in ear problems
- Leaves decoction is useful in throat disease



Cordia myxa L.

- A Leaves decoction is useful in cough



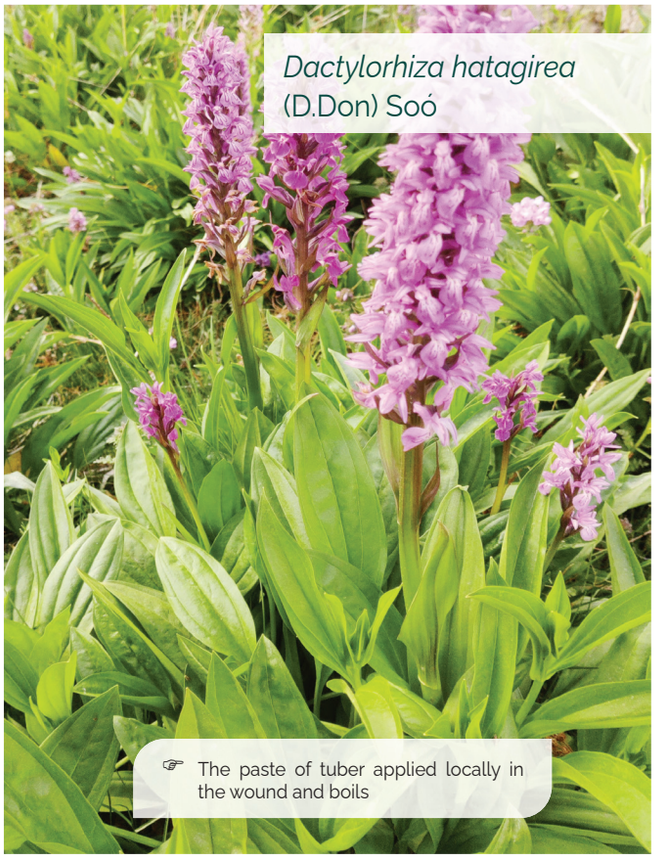
Cynodon dactylon (L.) Pers.

- A paste of the whole plant is applied locally in bleeding
- The juice of the whole plant taken daily before sunrise in menstrual problems
- The root powder taken in piles
- The paste of overnight soaked root taken in spermatorrhoea



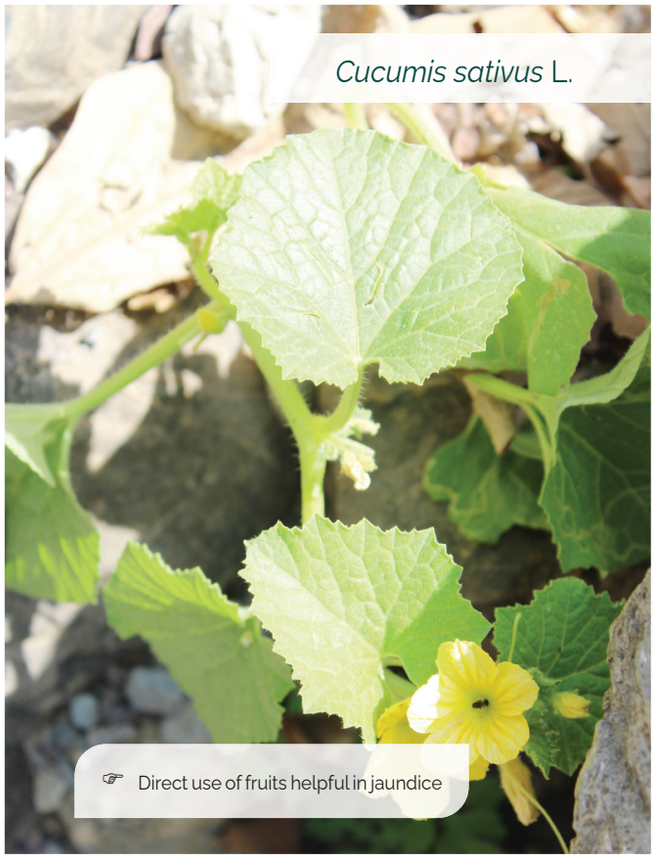
Cyanthillium cinereum (L.) H.Rob

☞ A decoction of the whole plant is useful in fever



Dactylorhiza hatagirea (D.Don) Soó

☞ The paste of tuber applied locally in the wound and boils



Cucumis sativus L.

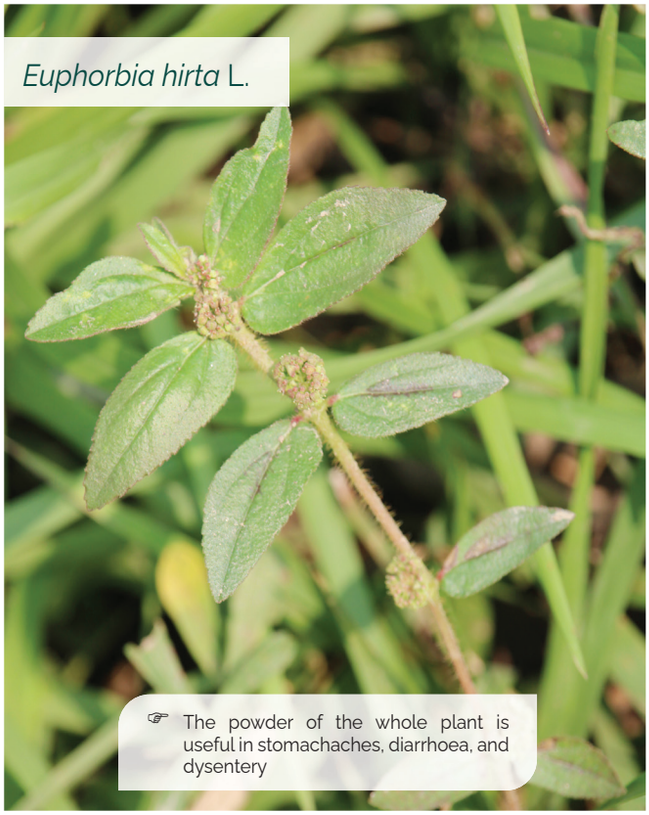
☞ Direct use of fruits helpful in jaundice



Curcuma longa L.

☞ A decoction of rhizome alone or along with *Zingiber officinale*, *Piper nigrum*, and jaggery useful in cough, cold, joint pain, and arthritis

Euphorbia hirta L.



- The powder of the whole plant is useful in stomachaches, diarrhoea, and dysentery

Euphorbia neriifolia L.



- The paste of cooked roots in oil applied in boils and eczema

Euphorbia thymifolia L.



- The whole plant decoction is useful in stomachaches, diarrhoea, and dysentery

Euphorbia tithymaloides L.



- Direct chewing of the leaves is helpful in piles
- Wearing a stem garland to disabled children helps to remove physical disability



Datura stramonium L.

☞ Leaves with warm oil applied in the boils and eczema



Ficus benghalensis L.

☞ The raw use of fruit is helpful in eye diseases



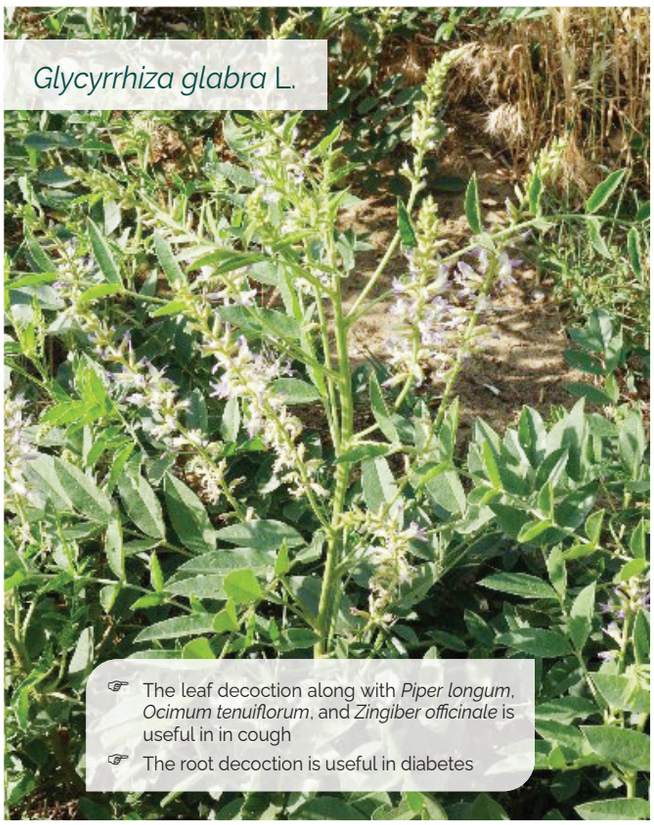
Hellenia speciosa (J.Koenig) S.R.Dutta

☞ The leaf juice with water is useful in diabetes



Fritillaria cirrhosa D.Don

☞ The direct use of bulbs is used in asthma



Glycyrrhiza glabra L.

☞ The leaf decoction along with *Piper longum*, *Ocimum tenuiflorum*, and *Zingiber officinale* is useful in in cough

☞ The root decoction is useful in diabetes



Eclipta prostrata (L.) L.

☞ The whole plant paste or the cooked mixture of the whole plant with black paper in mustard oil useful in boils and swelling



Gymnema sylvestre (Retz.) R.Br. ex Sm.

☞ The direct use of leaves useful in diabetes



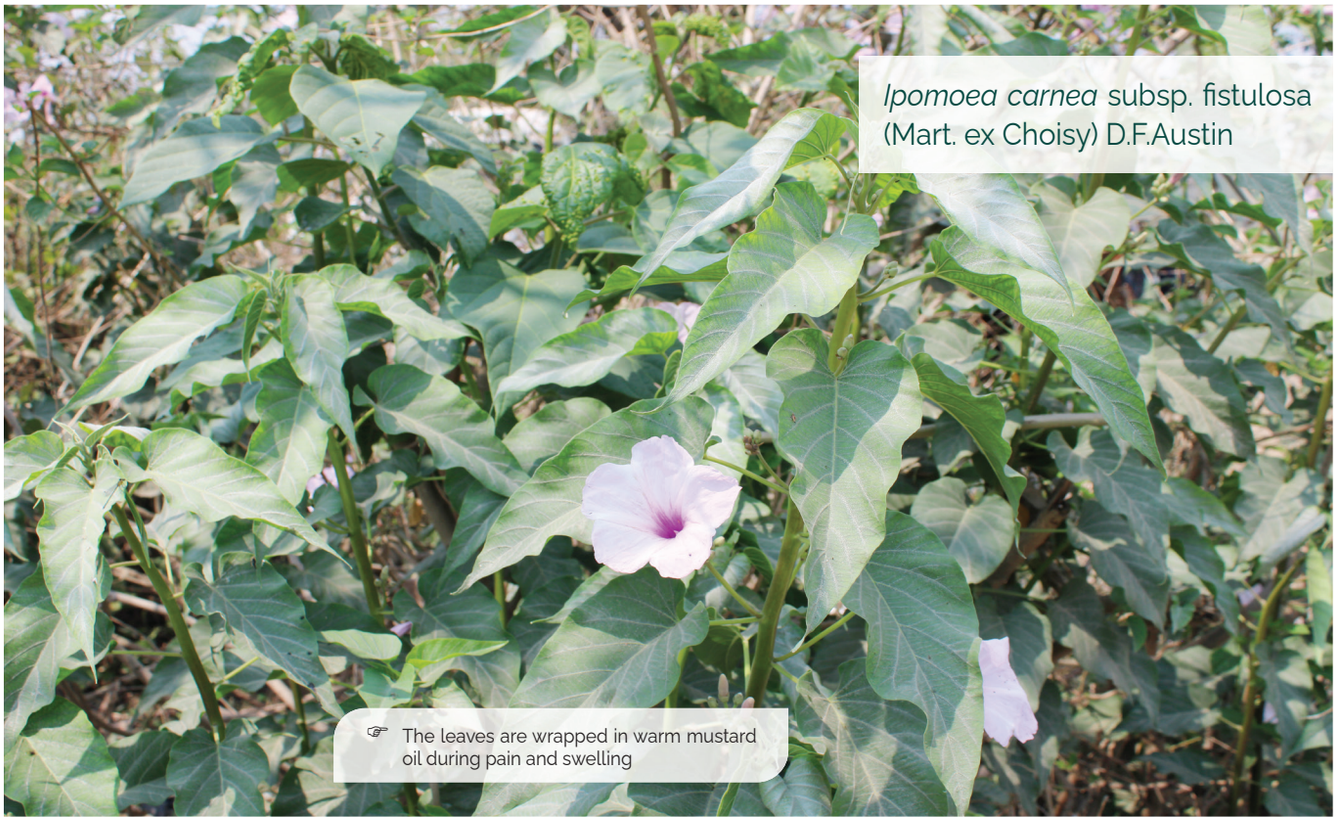
Hibiscus rosa-sinensis L.

- Regular use of flower buds improves lactation and helps with spermatorrhea issues



Holoptelea integrifolia (Roxb.) Planch.

- A paste of leaf and bark is applied locally for skin disease
- The cooked fruit powder in oil is used in boils and eczema



Ipomoea carnea subsp. fistulosa (Mart. ex Choisy) D.F.Austin

☞ The leaves are wrapped in warm mustard oil during pain and swelling



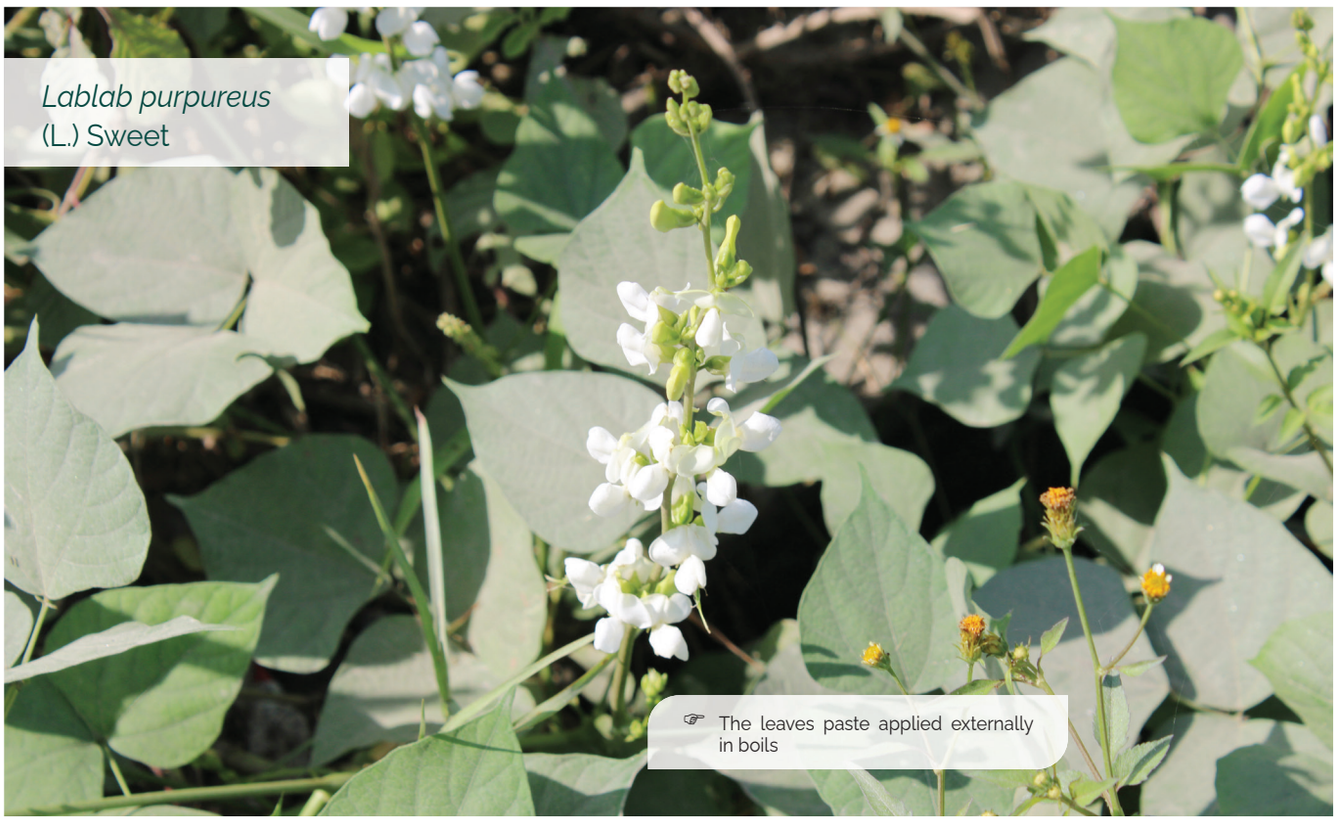
Juglans regia L.

☞ The regular brushing using roots helpful in toothache



Justicia adhatoda L.

- The leaves decoction is helpful in cough
- The mix leaves decoction along with *Albizia lebbeck* and *Solanum virginianum* helpfull in asthma. After having this cow milk is taken necessary; water is prohibited.
- The leaves paste along with black paper taken orally during fever



Lablab purpureus (L.) Sweet

- The leaves paste applied externally in boils



Lantana camara L.

☞ The consistent aroma of fresh leaves is beneficial for cholera



Launaea procumbens
(Roxb.) Ramayya & Rajagopal

☞ The leaf extract applied on affected parts during snakebite and scorpion sting

Malus domestica (Suckow) Borkh.



☞ Fruits vinegar is very useful in high blood pressure (hypertension), diabetes, uric acid (hyperuricemia), bone disease, cuts and wounds





Mangifera indica L.

☞ The leaves powder taken orally in diabetes



Mentha spicata L.

☞ Soak leaves in water and consume; this relieves cough, mouth ulcers, and stomachaches



Moringa oleifera Lam.

☞ The seed oil applied externally in pain and swelling



Morus alba L.

- The leaves paste is effective in boils and piles



Mikania micrantha Kunth

- The leaves paste applied externally in cuts and wounds
- The leaves juice is useful in diabetes



Musa × *paradisiaca* L.

- Direct use of fruits useful in jaundice



Nardostachys jatamansi (D.Don) DC.

- A decoction of root useful in epilepsy



Ocimum tenuiflorum L.

- The leaves juice taken with honey is useful in cough
- The whole plant paste applied topically in pain
- 2-3 drops of the plant distilled extract applied on the forehead for headache
- The plant paste is applied during leprosy
- A decoction along with *Curcuma longa*, Milk, and *Piper nigrum* is useful in cough
- 1-2 drops of leaf juice applied on eyes and ears
- A decoction of leaves used as a tea in fever



Nerium oleander L.

- Flower buds eaten with jaggery are beneficial for cough and asthma



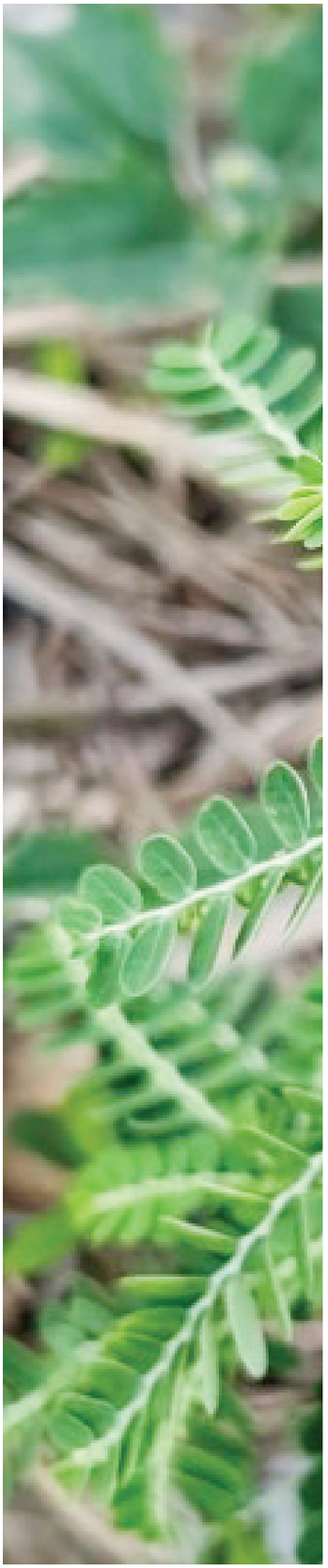
Ocimum americanum L.

- 2-3 drops of the leaves distilled extract useful in cough
- 2-3 drops of distilled extract of leaf applied to the toothache
- 2-3 drops of the leaf extract are mixed in a glass of water and drunk for stomachaches
- The paste of the whole plant is applied topically to piles, acne, and pimples

Nyctanthes arbor-tristis L.



- The leaves and flower decoction are useful in fever and joint pain
- A mix decoction of leaves along with *Tinospora cordifolia*, *Tinospora crispa* and *Piper nigrum* taken in the night after meal useful in cough
- Five leaves fried in oil and applied as a paste or boiled in water and consumed once a day for joint pain, arthritis





Phyllanthus amarus
Schumach. & Thonn.

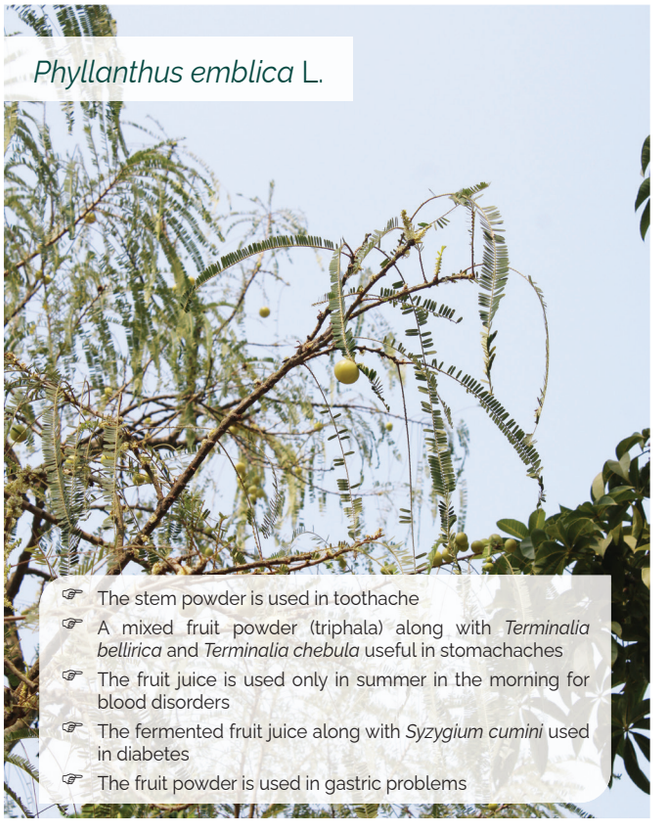
☞ The juice of the whole plant is useful in hepatic disorders

Origanum majorana L.



- 2-3 drops of a distilled extract of the whole plant are taken orally in diabetes

Phyllanthus emblica L.



- The stem powder is used in toothache
- A mixed fruit powder (triphala) along with *Terminalia bellirica* and *Terminalia chebula* useful in stomachaches
- The fruit juice is used only in summer in the morning for blood disorders
- The fermented fruit juice along with *Syzygium cumini* used in diabetes
- The fruit powder is used in gastric problems

Piper longum L.



- A fruit decoction along with the Cinnamon is useful in cough



Paris polyphylla Sm.

- A decoction of rhizome is useful in stomachaches
- The rhizome paste applied topically in wounds



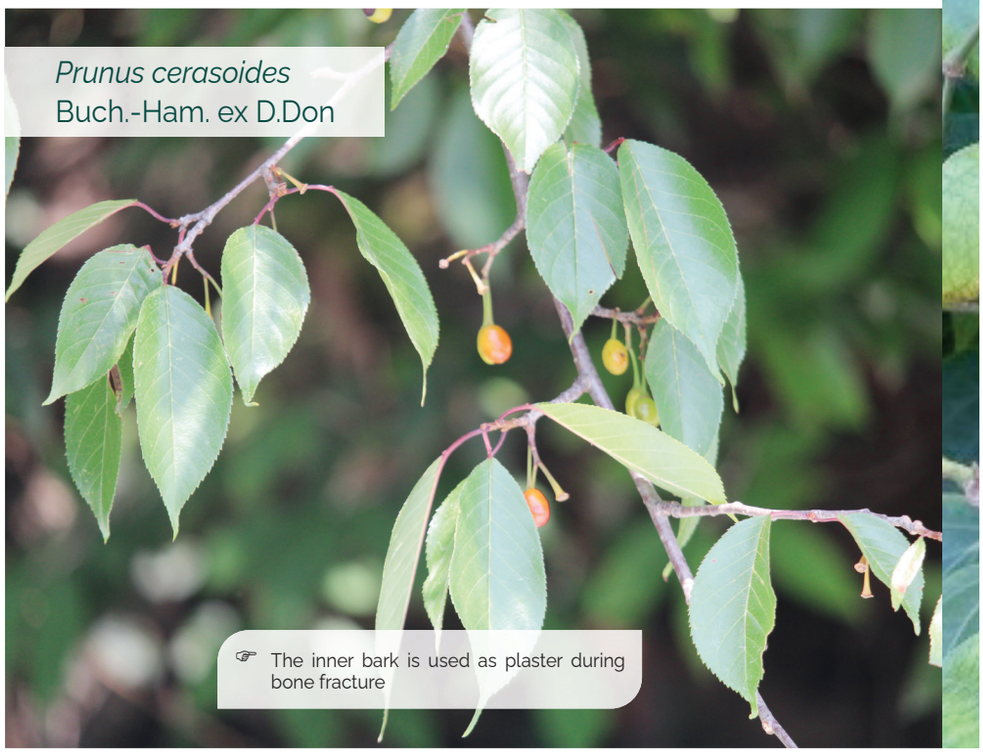
Piper betle L.

- A homogenized mixture of leaves with roots of *Boerhavia diffusa* and flowers of *Hibiscus rosa-sinensis* is useful in spermatorrhoea
- A decoction of leaves is used for nerve problems
- The leaves paste applied on the mouth for mouth problems



Pontederia crassipes Mart.

- A decoction of the whole plant is useful in stomachaches, anemia, and jaundice



Prunus cerasoides Buch.-Ham. ex D.Don

- The inner bark is used as plaster during bone fracture



Piper nigrum L.

- The seed powder used as a gargle for mouth ulcer
- A mix decoction of its seeds along with rhizome of *Zingiber officinale* and *Curcuma longa* is taken at night for cough
- A mix decoction of its seeds along with *Tinospora cordifolia*, *Tinospora crispa*, and *Nyctanthes arbor-tristis* taken at night after meal for cough



Psidium guajava L.

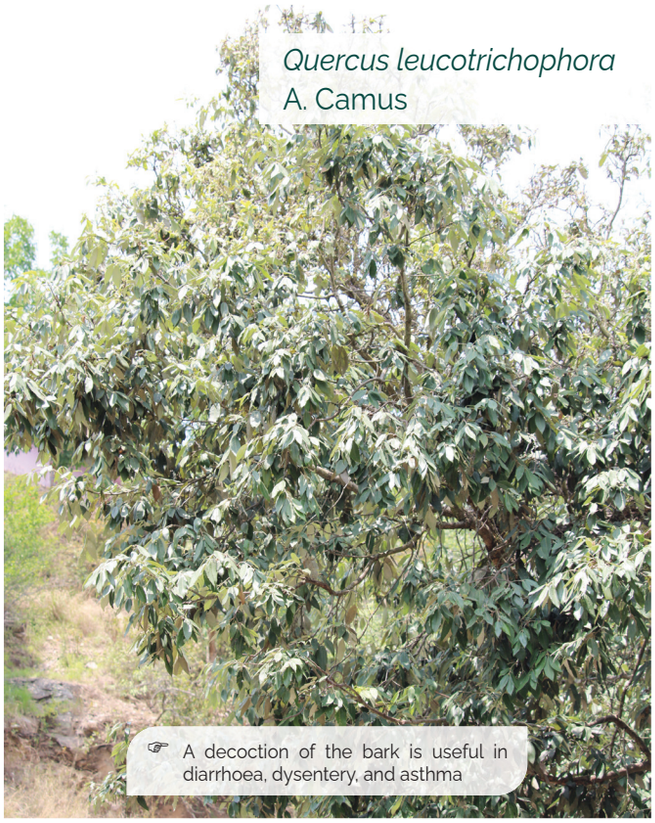
- The direct use of fruits useful in jaundice
- The fruit cooked in fire and taken in nasal problems



Ranunculus sceleratus L.

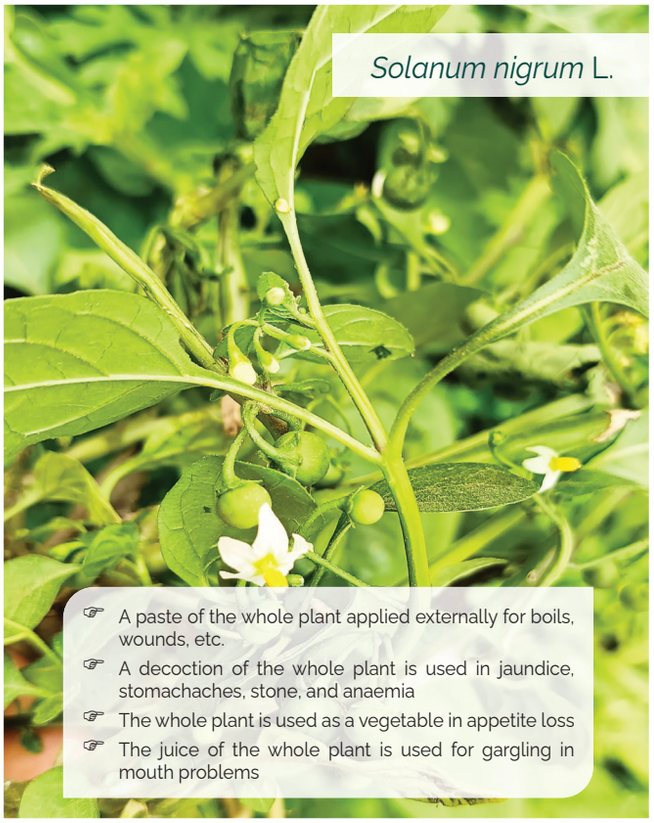
- The juice of the whole plant applied in boils and wounds

Quercus leucotrichophora A. Camus



- A decoction of the bark is useful in diarrhoea, dysentery, and asthma

Solanum nigrum L.



- A paste of the whole plant applied externally for boils, wounds, etc.
- A decoction of the whole plant is used in jaundice, stomachaches, stone, and anaemia
- The whole plant is used as a vegetable in appetite loss
- The juice of the whole plant is used for gargling in mouth problems

Ricinus communis L.



- The seed oil applied externally in piles



Rheum australe D.Don

☞ The root paste applied for internal injury, boils, and wounds



Saccharum officinarum L.

☞ The juice of the stem useful in jaundice



Stevia rebaudiana (Bertoni) Bertoni

- The direct use of leave is useful in diabetes



Solanum virginianum L.

- The burning fumes of seeds or seed paste or boiled seed in oil used in toothache
- A root decoction is useful in fever
- A mixed dried leaves decoction along with *Justicia adhatoda* and *Albizia lebbeck* is used in asthma. After having this cow milk is taken necessary; water is prohibited.
- A decoction of the whole plant applied on the scalp for hair problems



Streblus asper Lour.

☞ The leaves juice is useful in fever and cough



Syzygium aromaticum (L.) Merr. & L.M.Perry

☞ The powder of flower buds is gargled during mouth ulcer



Swertia chirayita (Roxb.) H.Karst.

☞ A decoction of the whole plant is useful in fever



Syzygium cumini (L.) Skeels

- Regular usage of fruits or fermented juice, either on its own or in conjunction with *Phyllanthus emblica* is useful in diabetes and gastric problems



Tagetes erecta L.

- The leaves juice direct applied on cuts and wounds for stop bleeding



Terminalia bellirica (Gaertn.) Roxb.

- The seed powder is taken orally for cough and cold
- A mixed fruit powder (Triphala) along with *Phyllanthus emblica* and *Terminalia chebula* is useful for stomach problems



Taxus wallichiana Zucc.

☞ A decoction of bark or tea with salt, Ghee, and water is useful in cough, cold, cancer, and mouth ulcer

Thalictrum foliolosum DC.



☞ A decoction of roots is useful for urinary disease and sexual disorders



Terminalia chebula Retz.

☞ A mixed fruit powder (Triphala) along with *Phyllanthus emblica* and *Terminalia bellirica* is useful for stomach problems



Thelypteris subpubescens (Blume) K.Iwats.

☞ A paste of the whole plant applied externally for rheumatoid arthritis



Tinospora cordifolia (Willd.) Hook.f. & Thomson

☞ A decoction of stem either alone or in combination with *Tinospora crispa*, *Nyctanthes arbor-tristis*, and *Piper nigrum* taken night after meal for fever, cold, cough, asthma, malaria, dengue, diabetes, and blood pressure





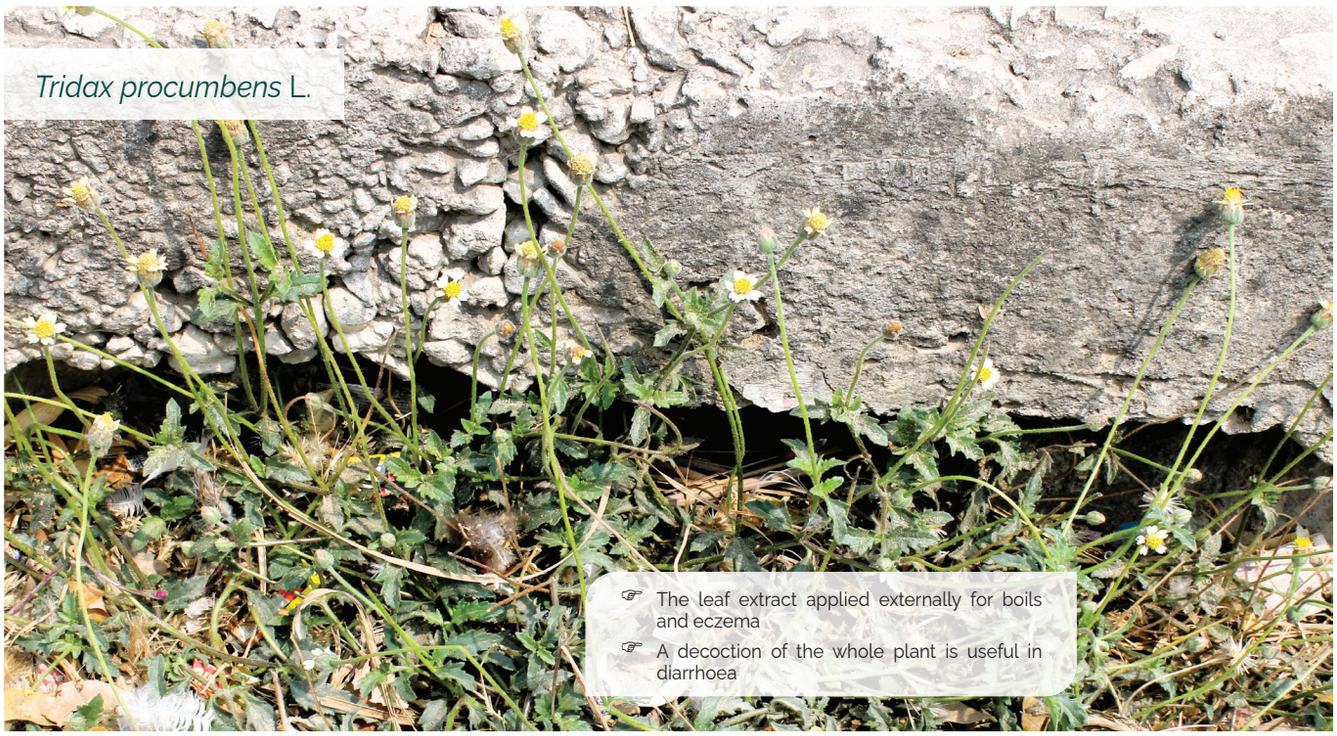
Tinospora crispa (L.) Hook.f. & Thomson

☞ A decoction of the whole plant is useful in cough and fever



Trachyspermum ammi (L.) Sprague

- A decoction of seeds is useful for stomachaches



Tridax procumbens L.

- The leaf extract applied externally for boils and eczema
- A decoction of the whole plant is useful in diarrhoea



Vachellia nilotica subsp. *indica* (Benth.) Kyal. & Boatwr.

☞ The seed juice taken orally for indigestion



Trigonella foenum-graecum L.

☞ The extract from overnight-soaked seeds given in the morning to treat joint pain, headache, and stomachaches



Zingiber officinale Roscoe

☞ A decoction of rhizome either alone or in combination with *Piper nigrum* and *Curcuma longa* or taken with honey is useful for the cough





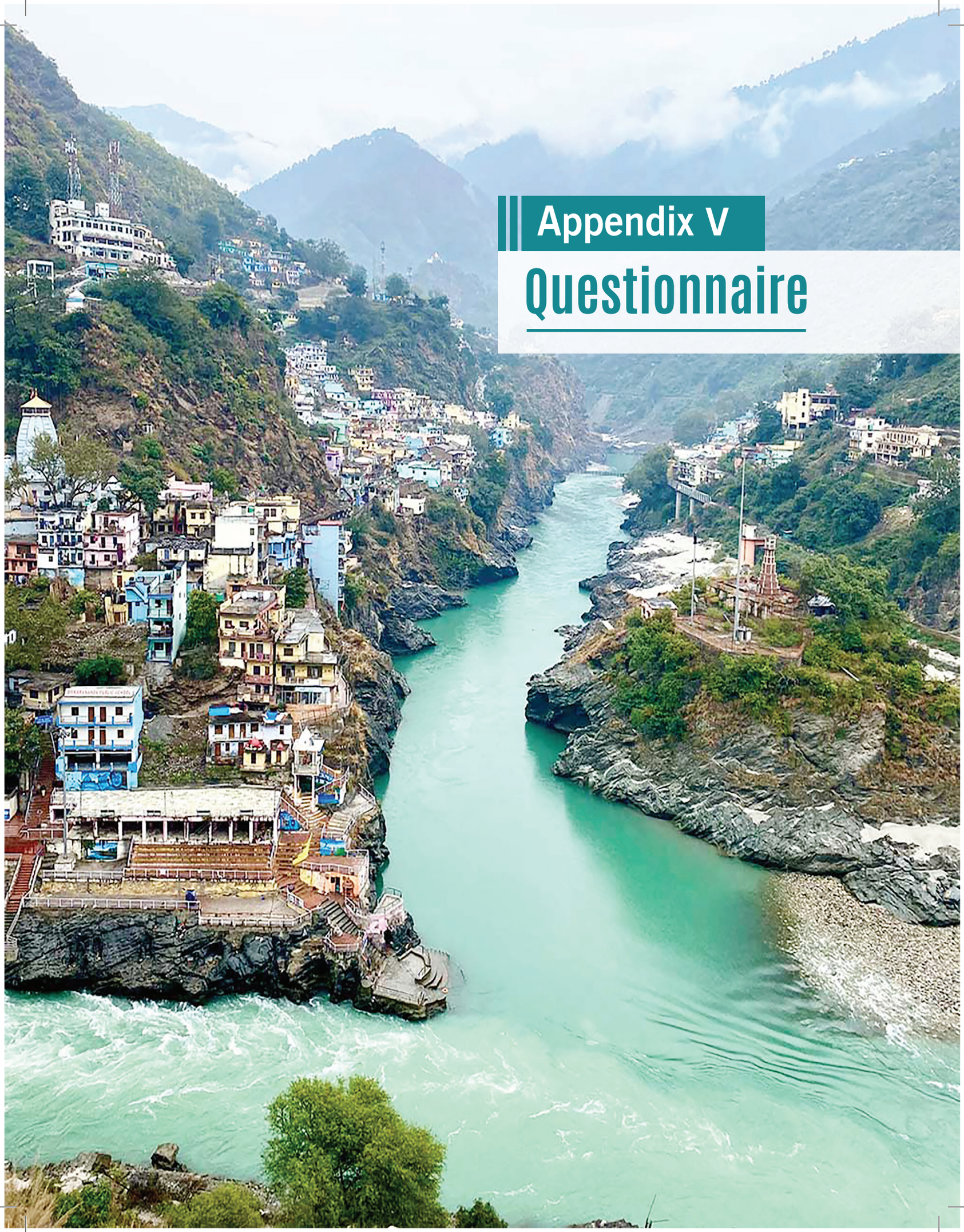
Vitex negundo L.

- The leaves paste applied externally for joint pain



Wrightia tinctoria (Roxb.) R.Br.

- Fruits cooked in oil and the paste applied for joint pain
- A decoction of fruits useful in liver problems
- The bark decoction is useful in piles
- The leaves juice applied on hair scalp during hair problems



Appendix V
Questionnaire

Scientific Exploration of Floral Diversity near the Ganga River Banks for Ethnobotanical purposes along with their Conservation and Economic Development of the Region Via Skill Development Programs

Respondent No.: ..... Name of the respondent: .....

Age: ..... Sex: ..... Education: .....

State: ..... District: .....

Locality: ..... Village: .....

Occupation: ..... Phone No: .....

Approach by the enumerator:

Step- I. Contact the village Head or any other responsible person and collect the information on the respondent's name and house location

Step- II. Contact and discussion with the respondent

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough					
2	Asthma					
3	Headache					
4	Joint pain/ arthritis					
5	Mouth ulcer					
6	Toothache					
7	Stomach ache					
8	Diarrhea & Dysentery					
9	Fever					
1	Malaria/ Dengue					
0	Anemia					
11	Jaundice					
12	Snakebite					
13	Urinary diseases					

14	Piles					
15	Boil					
16	Ulcer					
17	Blood pressure					
18	Sugar					
19	Leucorrhoea					
20	Eye diseases					
21	Nasal sinus					
22	Ear & throat diseases					
23	Nervous diseases					
24	Others					

Informant/plant local information		
1	Source of plant material	Naturally occurring [ ]; Domesticated/Cultivated [ ]; Crude drugs from the market [ ]
2	Availability of the plant material	Abundantly occurring [ ] Seasonal [ ] Rare [ ]
3	Permission from the Forest department	Authorized [ ] Not Authorized [ ] Not required [ ]
4	Storage of seasonal plants	Dry form [ ] Powder form [ ] Tablet form [ ] Liquid form [ ]
5	Guidance coordination & training	Whether training is required Yes [ ] No [ ]
		Do you feel to give training to others? Yes [ ] No [ ]
6	Publication	Do you feel to publish the knowledge? Yes [ ] No [ ]

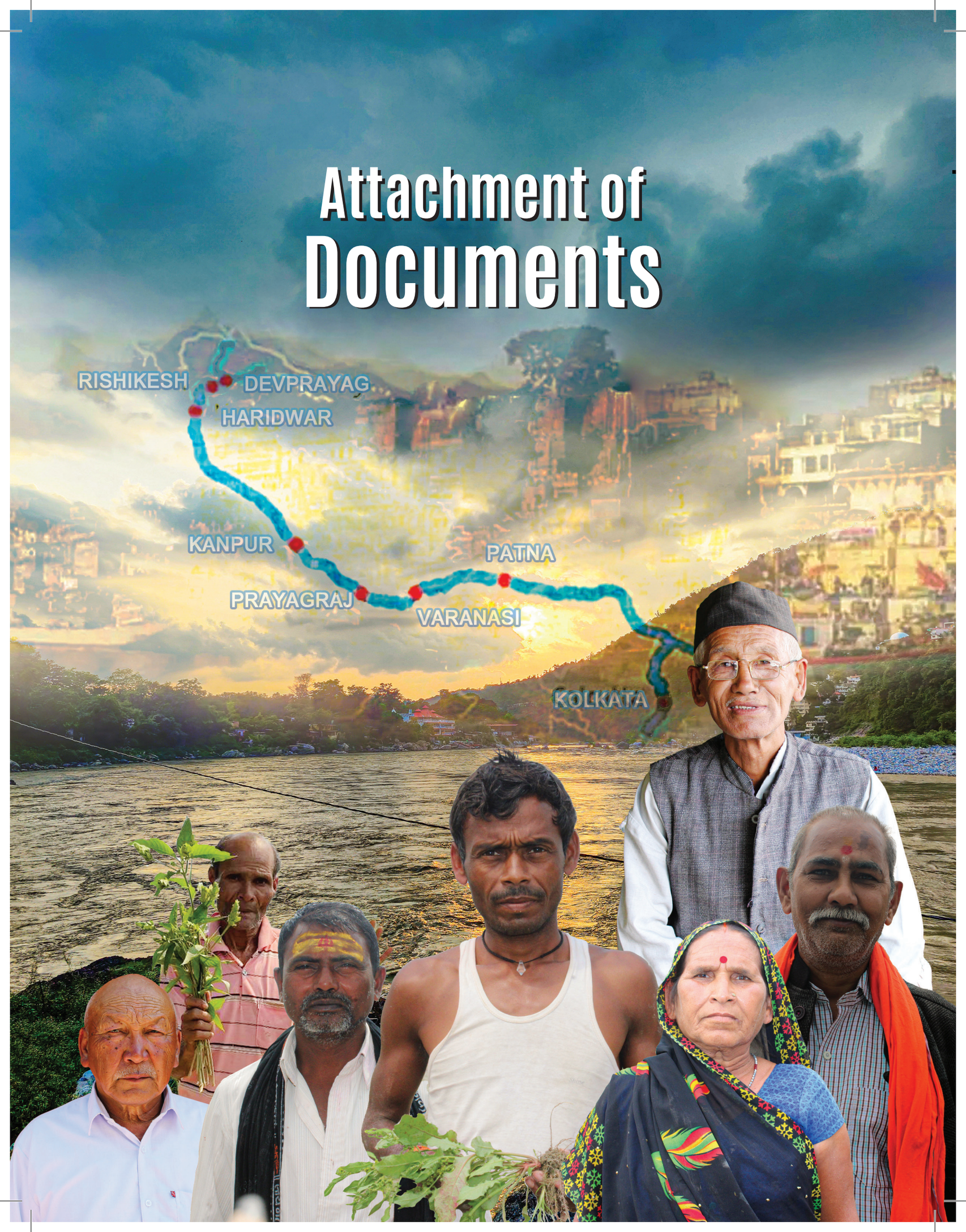
Signature/Thumb impression of the traditional healer with date:

Signature of the enumerator/ PRFT representative with date:

Signature of the Project Head:

Photograph of the respondent

Attachment of Documents



Respondent No.: 1.1.1.1

Name of Respondent: Mr. Kishor Singh

Age:	72	Sex:	Male	Education:	Graduation
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Constructor
Locality:	Harshil	Village:	Bagori	Phone No:	+91 7819900327

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Jangali Lahsun	*Fritillaria cirrhosa* D.Don	Bulb	Herb	Directly taken or eaten
2	Toothache	Akhrot	*Juglans regia* L.	Root	Tree	Brushing regular
3	Stomachache	Satuwa	*Paris polyphylla* Sm.	Rhizome	Herb	A decoction is taken orally
		Choru	*Angelica glauca* Edgew.	Root	Herb	Powder/ a decoction taken orally
4	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is used orally
5	Boil wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste applied topically
6	Wound	Satuwa	*Paris polyphylla* Sm.	Rhizome	Herb	Paste applied topically
7	Internal injury	Archa	*Rheum australe* D.Don	Root	Herb	Paste applied topically

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.1.2

Name of Respondent: Mr. Bishan Singh

Age:	56	Sex:	Male	Education:	Post-Graduation
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Insurance Agent
Locality:	Harshil	Village:	Bagori	Phone No:	+91 9012434077

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	A decoction/ Tea is taken orally
2	Stomachache	Jangali Jeera	*Carum carvi* L.	Seed	Herb	Paste is taken orally
		Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
		Choru	*Angelica glauca* Edgew.	Root	Herb	The powder is taken orally
3	Wound Healing of Boil	Faran	*Arisaema propinquum* Schott	Root	Herb	Paste applied topically
4	Blood Clotting	Hattha Jadi	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste applied topically
5	Diabetes	Chhakeer	*Berberis lycium* Royle	Root	Shrub	The extract is taken orally
6	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.1.3

Name of Respondent: Mrs. Chhirimg Doma

Age:	52	Sex:	Female	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Sheep rearing
Locality:	Harshil	Village:	Bagori	Phone No:	+91 7983592774

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough & cold	Bhotiya Chai, Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	Prepared a tea by mixing plant bark + salt + ghee + water
2	Stomachache	Choru	*Angelica glauca* Edgew.	Root	Herb	Powder/ a decoction is taken orally
		Pangre	*Allium humile* Kunth	Leaves	Herb	Cocked & taken as vegetable
3	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
4	Internal injury	Archa	*Rheum australe* D.Don	Root	Herb	Paste applied
5	Ulcer	Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	A decoction or as a tea

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.1.4

Name of Respondent: Mr. Khushi Ram

Age:	65	Sex:	Male	Education:	Graduation
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Sheep rearing
Locality:	Harshil	Village:	Bagori	Phone No:	+91 9410735641

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough & cold	Bhotiya Chai, Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	Prepared tea by mixing bark + salt + ghee + water
2	Stomachache	Choru	*Angelica glauca* Edgew.	Root	Herb	Powder/ a decoction taken orally
		Pangre	*Allium humile* Kunth	Leaves	Herb	Cocked & taken as vegetable
3	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
4	Internal injury	Archa	*Rheum australe* D.Don	Root	Herb	Paste applied
5	Ulcer	Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	A decoction or as a tea

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.1.5

Name of Respondent: Mrs. Urmila

Age:	54	Sex:	Female	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Harshil	Village:	Bhagori	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Jangali Lahsun	*Fritillaria cirrhosa* D.Don	Bulb	Herb	Directly taken or eaten
2	Toothache	Akhrot	*Juglans regia* L.	Root	Tree	Regular brushing
3	Stomachache	Satuwa	*Paris polyphylla* Sm.	Rhizome	Herb	A decoction
4	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
5	Wound Healing of Boil	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste applied topically
6	Internal injury	Archa	*Rheum australe* D.Don	Root	Herb	Paste applied topically
7	Wound	Satuwa	*Paris polyphylla* Sm.	Rhizome	Herb	Paste applied topically

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.1.6

Name of Respondent: Mr. Vishal

Age:	27	Sex:	Male	Education:	Graduation
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Harshil	Village:	Bagori	Phone No:	+91 9548795272

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Ulcer	Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	A decoction or Tea
2	Cancer	Thuner	*Taxus wallichiana* Zucc.	Bark	Tree	A decoction or Tea
3	Stomachache	Jangali Jeera	*Carum carvi* L.	Seed	Herb	Powder taken orally
		Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
4	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
5	Wound Healing of Boil	Faran	*Arisaema propinquum* Schott	Root	Herb	Paste applied topically
6	Blood Clotting	Hattha Jadi	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste applied topically
7	Diabetes	Chhakeer	*Berberis lycium* Royle	Root	Shrub	Extract used
8	Diarrhea	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not Authorized	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination and training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.2.1

Name of Respondent: Mr. Jayendra Bhatt

Age:	63	Sex:	Male	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Sangrali	Phone No:	+91 9456769051

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Bone fracture	Shekharu	*Prunus cerasoides* Buch.-Ham. ex D.Don	Bark	Tree	Inner bark is used as plaster
2	Fever	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	Powder is taken orally
3	Jaundice	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	Powder is taken orally
4	Urinary Disease	Bangla Jadi	*Thalictrum foliolosum* DC.	Root	Herb	A decoction is taken orally
5	Sexual disorders	Botareen	*Asparagus racemosus* Willd.	Root	Herb	Juice is taken orally
6	Pain	Chotar	*Berberis lycium* Royle	Root	Shrub	Extract is used orally
7	Diabetes	Neelkanthi	*Ajuga integrifolia* Buch.-Ham. ex D.Don	Root	Herb	Boiled, and juice is taken orally
8	Stone	Pattharchatta	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Seasonal, Rare				
3	Permission from the Forest department	Not Authorized, Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 1.1.2.2

Name of Respondent: Mr. Jai Krishna

Age:	62	Sex:	Male	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Sangrali	Phone No:	+91 9456348686

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Sexual disorders	Botareen	*Asparagus racemosus* Willd.	Root	Herb	A decoction is taken orally
		Bangla Jadi	*Thalictrum foliolosum* DC.	Root	Herb	A decoction is used
2	Pain	Chotar	*Berberis lycium* Royle	Root	Shrub	Extract is used orally
3	Diabetes	Neelkanthi	*Ajuga integrifolia* Buch.-Ham. ex D.Don	Root	Herb	Boiled juice taken orally
4	Stone	Pattharchatta	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.2.3

Name of Respondent: Mr. Vimleshwar Bhatt

Age:	61	Sex:	Male	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Sangrali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Fever	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	The powder is taken orally
2	Jaundice	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	Powder/paste taken orally
3	Sexual disorders	Bangla Jadi	*Thalictrum foliolosum* DC.	Root	Herb	A decoction is used orally
4	Diabetes	Neelkanthi	*Ajuga integrifolia* Buch.-Ham. ex D.Don	Root	Herb	Boiled juice is taken orally
5	Stone	Pattharchatta	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.2.4

Name of Respondent: Mr. Damodar Semwal

Age:	62	Sex:	Male	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Sangrali	Phone No:	+91 8954416115

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Fever	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	Powder/paste taken orally
2	Jaundice	Bhang	*Cannabis sativa* L.	Seed, Leaf	Shrub	Powder/paste taken orally
3	Sexual disorders	Botareen, Shatavar	*Asparagus racemosus* Willd.	Root	Herb	Juice is taken orally
		Bangla Jadi	*Thalictrum foliolosum* DC.	Root	Herb	A decoction is used
4	Pain	Chotar	*Berberis lycium* Royle	Root	Shrub	Extract is used
5	Bone fracture	Shekharu	*Prunus cerasoides* Buch.-Ham. ex D.Don	Bark	Tree	Inner bark is used as plaster
6	Diabetes	Neelkanthi	*Ajuga integrifolia* Buch.-Ham. ex D.Don	Root	Herb	Boiled juice is taken orally
7	Stone	Pattharchatta	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.3.1

Name of Respondent: Mr. Vijay Singh Rana

Age:	60	Sex:	Male	Education:	8th
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Baanj	*Quercus leucotrichophora* A.Camus	Bark	Tree	A decoction is taken orally
2	Arthritis/Joint pain	Chotar	*Berberis lycium* Royle	Root	Shrub	A decoction is taken orally
3	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
4	Diarrhea & Dysentery	Baanj	*Quercus leucotrichophora* A.Camus	Bark	Tree	A decoction is taken orally
5	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
		Kadwai	*Swertia chirayita* (Roxb.) H.Karst.	Whole plant	Herb	A decoction is taken orally
6	Wound healing in boil	Archa	*Rheum australe* D.Don	Root	Herb	Paste applied topically
7	Wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste applied topically
8	Epilepsy	Jatamansi	*Nardostachys jatamansi* (D.Don) DC.	Root	Herb	A decoction is taken orally
9	Uric acid (Hyperuricemia)	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
10	High blood pressure (Hypertension)	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
11	Diabetes	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
12	Stone	Seb	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally
13	Skin disease	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and used orally

14	Bone disease	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes



Respondent No.: 1.1.3.2

Name of Respondent: Mrs. Seema

Age:	32	Sex:	Female	Education:	5th
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Epilepsy	Jatamansi	*Nardostachys jatamansi* (D.Don) DC.	Root	Herb	A decoction is taken orally
2	Stone	Silphoda	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally
3	Fever	Kadwai	*Swertia chirayita* (Roxb.) H.Karst.	Whole plant	Herb	A decoction is taken orally
		Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
4	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
5	Wound of boil	Archa	*Rheum australe* D.Don	Root	Herb	Paste is applied topically
6	Wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste is applied topically

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.3.3

Name of Respondent: Mr. Ravinder Singh Rana

Age:	48	Sex:	Male	Education:	Intermediate
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Farmer
Locality:	Uttarkashi	Village:	Purali	Phone No:	+91 6396894844

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Baanj	*Quercus leucotrichophora* A.Camus	Bark	Tree	A decoction is taken orally
2	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
3	Fever	Kadwai	*Swertia chirayita* (Roxb.) H.Karst.	Whole plant	Herb	A decoction is taken orally
4	Epilepsy	Jatamansi	*Nardostachys jatamansi* (D.Don) DC.	Root	Herb	A decoction is taken orally
5	Stone	Silphoda	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.3.4

Name of Respondent: Mrs. Manju

Age:	35	Sex:	Female	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Diarrhea & Dysentery	Baanj	*Quercus leucotrichophora* A. Camus	Bark	Tree	A decoction is taken orally
2	Arthritis/Joint pain	Chotar	*Berberis lycium* Royle	Root	Shrub	A decoction is taken orally
3	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
4	Boil wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste is applied locally
5	Stone	Silphoda	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Seasonal, Rare				
3	Permission from the Forest department	Authorized, Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 1.1.3.5

Name of Respondent: Mrs. Leela Devi

Age:	44	Sex:	Female	Education:	None
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Baanj	*Quercus leucotrichophora* A. Camus	Bark	Tree	A decoction is taken orally
2	Fever	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
3	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
4	Boil wound	Archa	*Rheum australe* D.Don	Root	Herb	Paste is applied
5	Stone	Silphoda	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 1.1.3.6

Name of Respondent: Mrs. Shakuntala Devi

Age:	38	Sex:	Female	Education:	Higher Secondary
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Chotar	*Berberis lycium* Royle	Root	Shrub	A decoction is taken orally
2	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction is taken orally
3	Fever	Kadwai	*Swertia chirayita* (Roxb.) H.Karst.	Whole plant	Herb	A decoction is taken orally
4	Boil wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste is applied locally
5	Stone	Silphoda	*Bergenia ciliata* (Haw.) Sternb.	Root	Herb	A decoction is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

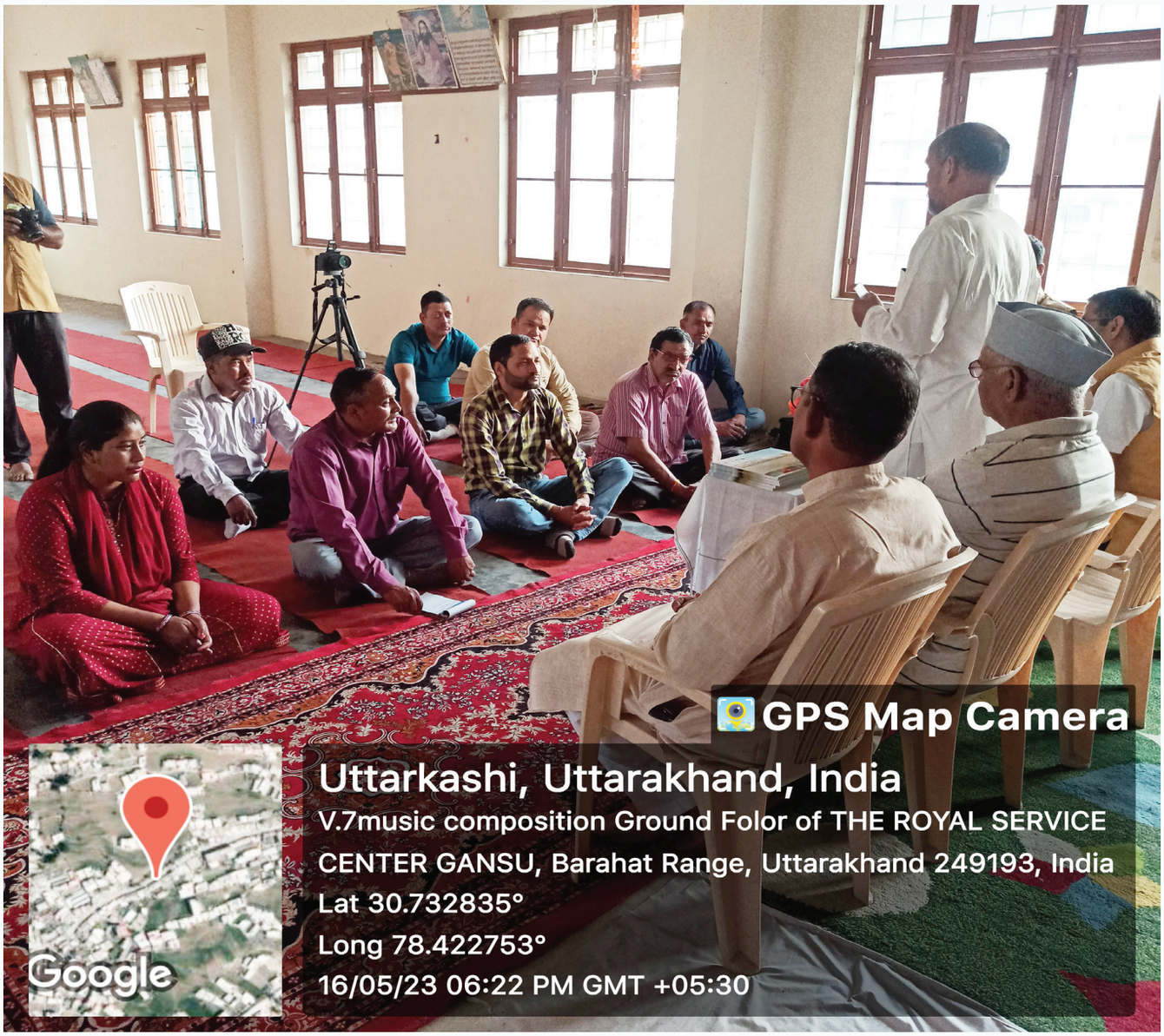
Respondent No.: 1.1.3.7

Name of Respondent: Mrs. Lakshmi

Age:	37	Sex:	Female	Education:	8th
State:	Uttarakhand	District:	Uttarkashi	Occupation:	Homemaker
Locality:	Uttarkashi	Village:	Purali	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Baanj	*Quercus leucotrichophora* A. Camus	Bark	Tree	A decoction is taken orally
2	Diarrhea & Dysentery	Baanj	*Quercus leucotrichophora* A. Camus	Bark	Tree	A decoction is taken orally
3	Arthritis/Joint pain	Chotar	*Berberis lycium* Royle	Root	Shrub	A decoction is used orally
4	Fever	Kadwai	*Swertia chirayita* (Roxb.) H.Karst.	Whole plant	Herb	A decoction is taken orally
		Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
5	Stomachache	Atish	*Aconitum heterophyllum* Wall. ex Royle	Root	Herb	A decoction
6	Boil wound	Archa	*Rheum australe* D.Don	Root	Herb	Paste is applied locally
7	Wound	Salampanja	*Dactylorhiza hatagirea* (D.Don) Soó	Tuber	Herb	Paste is applied locally
8	Epilepsy	Jatamansi	*Nardostachys jatamansi* (D.Don) DC.	Root	Herb	A decoction is taken orally
9	High Blood pressure (Hypertension)	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
10	Diabetes	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
11	Uric acid (Hyperuricemia)	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	Prepared as a vinegar and taken
12	Stone	Seb	*Bergenia ciliata* (Haw.) Sternb.	Root	Tree	A decoction used orally
13	Bone disease	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	The vinegar is taken orally
14	Skin disease (Cut & wounds)	Seb	*Malus domestica* (Suckow) Borkh.	Fruit	Tree	The vinegar is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Seasonal, Rare	
3	Permission from Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes



Respondent No.: 1.2.1.1

Name of Respondent: Mr. Yashveer Singh Rana

Age:	62	Sex:	Male	Education:	Graduation
State:	Uttarakhand	District:	Haridwar	Occupation:	Farmer
Locality:	Alawarpur	Village:	Alawarpur	Phone No:	+91 7351194938

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough & cold	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
		Aank	*Calotropis procera* (Aiton) W.T.Aiton	Flower	Shrub	Powder with honey is taken orally
2	Stomachache	Dudhi	*Euphorbia thymifolia* L.	Whole plant	Herb	A decoction is taken orally
			Euphorbia hirta L.			
3	Diarrhea & Dysentery	Dudhi	*Euphorbia thymifolia* L.	Whole plant	Herb	A decoction is taken orally
			Euphorbia hirta L.			
4	Hemorrhoids (Piles)	Aank	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Powder is taken orally
5	Boil/Cut	Bhang	*Cannabis sativa* L.	Leaves	Shrub	Paste applied topically
6	Diabetes	Aam	*Mangifera indica* L.	Leaves	Tree	Powder is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry for, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 1.2.2.1

Name of Respondent: Mr. Mir Hamja Gujjar

Age:	28	Sex:	Male	Education:	Post-Graduation
State:	Uttarakhand	District:	Haridwar	Occupation:	Farmer
Locality:	Chilla Forest Range	Village:	Kunaun Chaur	Phone No:	+91 9927531392

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough & Cold	Baheda	*Terminalia bellirica* (Gaertn.) Roxb.	Seed	Tree	Powder is taken orally
2	Stomachache	Amaltaas	*Cassia fistula L.*	Root	Tree	A decoction is used orally
3	Diarrhea & Dysentery	Amaltaas	*Cassia fistula L.*	Root	Tree	A decoction is used orally
4	Cholera	Kuri	*Lantana camara* L.	Leaves	Shrub	Leaves are used to smell regularly
5	Sexual disorder	Semal	*Bombax ceiba* L.	Root	Tree	Juice or A decoction is used orally
6	Skin disease	Papari	*Holoptelea integrifolia* (Roxb.) Planch.	Leave, Bark	Tree	Paste is applied locally
7	Indigestion	Keekar	*Vachellia nilotica* subsp. *indica* (Benth.) Kyal. & Boatwr.	Seed	Tree	Juice is taken orally
8	Asthma	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.1.1.1

Name of Respondent: Mr. Daya Ram

Age:	61	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Bulandshahr	Occupation:	Farmer
Locality:	Bulandshahr/Sambhal	Village:	Choupur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Piyabansa	*Barleria prionitis* L.	Leaves	Herb	A decoction of leaves is given orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction of stem is given orally
3	Boil & Wounds	Latapuri	*Ranunculus sceleratus* L.	Whole plant	Herb	Plant juice is applied topically
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.2.1.1

Name of Respondent: Mr. Pramod Mishra

Age:	55	Sex:	Male	Education:	Post Graduation
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Farmer & Healer
Locality:	Bithoor	Village:	Bithoor Nagar Panchayat	Phone No:	+91 6388232701

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Tulsi	*Ocimum tenuiflorum* L.	Whole parts	Herb	Paste made from whole parts of plant applied topically
2	Hepatic disorder	Bhumi Amla	*Phyllanthus amarus* Schumach. & Thonn.	Whole plant	Herb	Juice is given orally
3	Chronic Renal Pain	Latjira	*Achyranthes aspera* L.	Whole parts	Herb	A decoction of whole plant given orally.
4	Psoriasis	Neem	*Azadirachta indica* A.Juss.	Leaves	Tree	Leaves are boiled in water and take a bath
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.2.2.1

Name of Respondent: Mr. Chhote Lal Nishad

Age:	60	Sex:	Male	Education:	Higher Secondary
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Farmer & Healer
Locality:	Bithoor	Village:	Ramel Nagar	Phone No:	+91 9621848877

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Leaves juice with honey is given orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction of stem is given orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Liquid form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.2.2.2

Name of Respondent: Mr. Ram Sanjeevan Nishad

Age:	38	Sex:	Male	Education:	Post Graduation
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Farmer & Healer
Locality:	Ramel Nagar	Village:	Ramel Nagar	Phone No:	+91 7621848877

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Leaves juice with honey is given orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction of stem is given orally
3	Mouth ulcer	Laung	*Syzygium aromaticum* (L.) Merr. & L.M.Perry	Flower bud	Tree	Powder is used for gargle
4	Mouth ulcer	Kali Mirch	*Piper nigrum* L.	Seed	Climber	Powder is used for gargle
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.2.2.3

Name of Respondent: Mr. Gyan Singh Yadav

Age:	62	Sex:	Male	Education:	Matriculation
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Farmer
Locality:	Bithoor	Village:	Ramel Nagar	Phone No:	+91 6392347807

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Scorpion sting	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Latex is applied over the affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
5	Publication	Do you feel to publish the knowledge?				Yes





Respondent No.: 2.2.3.1

Name of Respondent: Mr. Samar Singh Bhadauriya

Age:	75	Sex:	Male	Education:	Matriculation
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Farmer
Locality:	Kanpur Nagar	Village:	Sawaijpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough & Cold	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Juice with honey is taken orally
2	Wound	Genda	*Tagetes erecta* L.	Leaves	Herb	Leaf juice applied directly on cut & wound to stop bleeding
Informant/plant local information						
1	Source of plant material	Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.2.4.1

Name of Respondent: Mr. Rameshwar Kushwaha

Age:	70	Sex:	Male	Education:	Ayurvedacharya
State:	Uttar Pradesh	District:	Kanpur	Occupation:	Healer
Locality:	Kanpur Nagar	Village:	Jajmau	Phone No:	+91 9836415551

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Vijya Tulsi	*Ocimum americanum* L.	Leaves	Herb	2-3 drops of the distilled extract are given orally
2	Headache	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	2-3 drops of the distilled extract apply on forehead
3	Toothache	Tulsi	*Ocimum americanum* L.	Leaves	Herb	2-3 drops of the distilled extract apply on affected area
4	Stomachache	Tulsi	*Ocimum americanum* L.	Leaves	Herb	2-3 drops of the extract are mixed in a glass of water and drink
5	Hemorrhoids (Piles)	Tulsi	*Ocimum americanum* L.	Leaves	Herb	2-3 drops of the distilled extract are given orally
6	Diabetes	Tulsi	*Origanum majorana* L.	Whole plant	Herb	2-3 drops of the distilled extract are given orally
7	Acne & Pimples	Tulsi	*Ocimum americanum* L.	Whole plant	Herb	Paste of whole plant is applied topically on affected area

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.1.1

Name of Respondent: Mr. Pappu Nishad

Age:	30	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Sailor (Navik)
Locality:	Dalmau	Village:	Kateri	Phone No:	+91 8527236559

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	Taking mix decoction in the night after meal
		Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	
		Parijat	*Nyctanthes arbor-tristis* L.	Leaves	Tree	
		Kali mirch	*Piper nigrum* L.	Seeds	Climber	
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
3	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
4	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
5	Boil/ Swelling	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Plant paste applied
6	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Leaves	Shrub	A decoction
7	Others	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Use as a vegetable

Informant/plant local information			
1	Source of plant material	Naturally occurring, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.1.2

Name of Respondent: Mr. Dinesh Kumar

Age:	40	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Kateri	Phone No:	+91 8127068394

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Safed Kaner	*Nerium oleander* L.	Flower	Tree	Buds taken with jaggery
2	Headache	Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	Take as a halwa
3	Jaundice/ Liver	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
4	Boil/ Swelling	Ghamira	*Eclipta prostrata* (L.) L.	Whole Plant	Herb	Paste + black pepper + mustard oil = Taken after cooking
5	Nasal sinus	Amrood	*Psidium guajava* L.	Fruit	Tree	Cooked in fire and taken
6	Nervous diseases/ Mental disorder	Shankpushpi	*Convolvulus prostratus* Forssk.	Whole Plant	Herb	Tonic

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.1

Name of Respondent: Mr. Shivmurti Tiwari

Age:	56	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Dalmau	Phone No:	+91 9670409393

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction
2	Stomachache	Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	Take as a halwa
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction
4	Jaundice	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
5	Boil	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Paste applied on affected part
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Regular use or Eating regularly
7	Nasal sinus	Amrood	*Psidium guajava* L.	Fruit	Tree	Cooked in fire and taken

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.2

Name of Respondent: Mrs. Vimla Verma

Age:	35	Sex:	Female	Education:	8th
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Dalmau	Phone No:	+91 7081225758

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Safed Kaner	*Nerium oleander* L.	Flower	Tree	Bud taken with jaggery
2	Arthritis/Joint pain	Indrajau	*Wrightia tinctoria* (Roxb.) R.Br.	Fruit	Tree	Cooked in oil and paste applied
3	Jaundice/ Liver	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
4	Sprain	Arandi	*Ricinus communis* L.	Leave, Seeds	Shrub	Applied paste on affected part
5	Goiter/ Tonsil	Chirchita	*Achyranthes aspera* L.	Root	Herb	Wearing roots garland for treatment
6	Boil/ Eczema	Dhatura	*Datura stramonium* L.	Leaves	Herb	Leaves with warm oil applied on affected part
7	Leucorrhoea/ Menstrual problem	Doobghas	*Cynodon dactylon* (L.) Pers.	Whole Plant	Herb	Plant juice taken before sunrise daily
8	Leprosy	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Leaves paste applied to affected part

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.3

Name of Respondent: Mrs. Aasha Devi

Age:	60	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Nawabganj	Phone No:	+91 9106115392

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction
2	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil and applied on painful part
3	Diarrhea & Dysentery	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
4	Fever	Sahdevi	*Cyanthillium cinereum* (L.) H.Rob.	Whole Plant	Herb	A decoction
5	Jaundice	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
6	Boil/ Eczema	Chilbil	*Holoptelea integrifolia* (Roxb.) Planch.	Fruit	Tree	Cooked powder in oil is used on the affected part
7	Nervous diseases	Shankpushpi	*Convolvulus prostratus* Forssk.	Whole Plant	Herb	Tonic

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.4

Name of Respondent: Mr. Virendra Kumar Verma

Age:	55	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Nawabganj	Phone No:	+91 8417984688

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Arus	*Justicia adhatoda* L.	Leaves	Shrub	A decoction
2	Arthritis/Joint pain	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Fruit	Tree	Cooked in oil and paste applied
3	Fever	Sevda	*Streblus asper* Lour.	Leaves	Tree	Taken juice
4	Boil/ Eczema	Chirchita/ Suryamukhi	*Achyranthes aspera* L.	Leaves	Herb	Paste applied on affected part
5	Sugar	Safed Sadabahar	*Catharanthus roseus* (L.) G.Don	Leaves	Herb	A decoction
6	Impotency	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Root juice taken with batasha

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring	
3	Permission from Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.5

Name of Respondent: Mrs. Maya Devi

Age:	38	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Nawabganj	Phone No:	+91 8417984688

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Arbi	*Colocasia esculenta* (L.) Schott	Whole Plant	Herb	Regular use of plant
2	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
3	Jaundice/ Liver	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
4	Boil/ Swelling	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Plant paste applied
		Ghamira	*Eclipta prostrata* (L.) L.	Whole Plant	Herb	Paste + black pepper + mustard oil = Taken after cooking
5	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Regular use
6	Appetite loss	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Use as a vegetable

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.6

Name of Respondent: Mr. Uttam Maurya

Age:	25	Sex:	Male	Education:	MA
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Lalganj	Village:	Nawabganj (Dalmau)	Phone No:	+91 6392945095

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Arus	*Justicia adhatoda* L.	Leaves	Shrub	A decoction
2	Mouth ulcer	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Juice gargeling
3	Toothache	Lathjeera	*Achyranthes aspera* L.	Stem	Herb	Use as a toothbrush
4	Stomachache	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
5	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
6	Boil/Skin disease	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	Juice applied externally
7	Sugar	Sadabahar	*Catharanthus roseus* (L.) G.Don	Leaves	Herb	A decoction
8	Eye diseases	Lathjeera	*Achyranthes aspera* L.	Leaves	Herb	Extract use externally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.3.2.7

Name of Respondent: Mr. Arjun Kumar Yadav

Age:	38	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Lalganj	Village:	Deoli	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Snakebite/ Scorpion sting	Gobhi Phool	*Launaea procumbens* (Roxb.) Ramayya & Rajagopal	Leaves	Herb	Extract applied on affected part
2	Boil/Eczema	Bharwa	*Tridax procumbens* L.	Leaves	Herb	Extract applied on affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.3.2.8

Name of Respondent: Mrs. Babli Devi

Age:	62	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Maliyapur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Taken with honey
2	Fever	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction
3	Boil/ Eczema	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied on affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.3.2.9

Name of Respondent: Mrs. Bhanumati

Age:	38	Sex:	Female	Education:	8th
State:	Uttar Pradesh	District:	Raebareli	Occupation:	Farmer
Locality:	Dalmau	Village:	Nawabganj	Phone No:	+91 9565694491

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
2	Anemia	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
3	Jaundice	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
4	Boil/ Eczema	Dhatura	*Datura stramonium* L.	Leaves	Herb	Leaves with warm oil applied on affected part
5	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Leaves	Shrub	A decoction
6	Kidney stone	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.4.1.1

Name of Respondent: Mr. Sahibe Alam

Age:	21	Sex:	Male	Education:	8th
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Labour
Locality:	Rampur	Village:	Rampur	Phone No:	+91 8707649697

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Sonth (Dry ginger)	*Zingiber officinale* Roscoe	Rhizome	Herb	Mixed with honey and taken
2	Piles	Chirchita	*Achyranthes aspera* L.	Root	Herb	Soaked overnight then paste is made in the morning and taken
3	Boil	Sem	*Lablab purpureus* (L.) Sweet	Leaves	Climber	Paste is applied externally
4	Spermatorrhea	Doobghas	*Cynodon dactylon* (L.) Pers.	Root	Herb	Roots are soaked overnight and made paste in the morning then taken
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.4.1.2

Name of Respondent: Mr. Muhammad Shabeer

Age:	30	Sex:	Male	Education:	9th
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Tailor
Locality:	Rampur	Village:	Rampur	Phone No:	+91 9889643551

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Sonth	*Zingiber officinale* Roscoe	Rhizome	Herb	Taking with honey
2	Toothache	Aamla	*Phyllanthus emblica* L.	Stem	Tree	Used powder
		Bhatkatiya	*Solanum virginianum* L.	Fruit	Herb	Paste
3	Fever	Naai Ghas	*Cenchrus purpureus* (Schumach.) Morrone	Leaves	Herb	A decoction
4	Piles	Doobghas	*Cynodon dactylon* (L.) Pers.	Root	Herb	Powder is taken orally
		Chirchita	*Achyranthes aspera* L.	Root	Herb	Powder Mixed with black pepper then decoction is taken
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.4.1.3

Name of Respondent: Mr. Ram Ji Prajapati

Age:	38	Sex:	Male	Education:	8th
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Farmer
Locality:	Rampur	Village:	Rampur	Phone No:	+91 8546020818

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Sonth	*Zingiber officinale* Roscoe	Rhizome	Herb	Taking with honey
2	Toothache	Aamla	*Phyllanthus emblica* L.	Stem	Tree	Used powder
		Bhatkatiya	*Solanum virginianum* L.	Fruit	Herb	Paste
3	Fever	Naai Ghas	*Cenchrus purpureus* (Schumach.) Morrone	Leaves	Herb	A decoction
4	Snakebite/ Scorpion sting	Gobhi Phool	*Launaea procumbens* (Roxb.) Ramayya & Rajagopal	Leaves	Herb	Leaves extract applied on affected part
5	Piles	Doobghas	*Cynodon dactylon* (L.) Pers.	Root	Herb	Powder
		Chirchita	*Achyranthes aspera* L.	Root	Herb	Powder mixed with black pepper then decoction is taken

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.4.2.1

Name of Respondent: Mr. Prem Singh

Age:	49	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Farmer
Locality:	Dhanupur	Village:	Baraut	Phone No:	+90 9695747129

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied on affected area
2	Stomachache	Aamla	*Phyllanthus emblica* L.	Tree	Fruit	Make powder and taken directly commonly Triphala
		Baheda	*Terminalia bellirica* (Gaertn.) Roxb.	Tree	Fruit	
		Haritaki	*Terminalia chebula* Retz.	Tree	Fruit	
3	Piles	Doobghas	*Cynodon dactylon* (L.) Pers.	Root	Herb	Powder
4	Nerves blockage	Badi Elaichi	*Amomum subulatum* Roxb.	Fruit	Herb	Directly taken
5	Blood disorder	Aamla	*Phyllanthus emblica* L.	Leaves	Tree	Only during summer, the juice taken in morning

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.4.3.1

Name of Respondent: Mr. Narad

Age:	40	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Farmer
Locality:	Sangipur	Village:	Bhawari	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Sonth	*Zingiber officinale* Roscoe	Rhizome	Herb	Taking with honey
2	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Boil in water and taken directly
3	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
Informant/plant local information						
1	Source of plant material		Naturally occurring, Domesticated/Cultivated			
2	Availability of the plant material		Seasonal			
3	Permission from the Forest department		Not required			
4	Storage of seasonal plants		Dry form			
5	Guidance coordination & training		Whether training is required			Yes
			Do you feel to give training to others?			No
6	Publication		Do you feel to publish the knowledge?			Yes

Respondent No.: 2.4.4.1

Name of Respondent: Mr. Vrindavan

Age:	36	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Labour
Locality:	Prayagraj	Village:	Naini	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
3	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
4	Boil/ Eczema	Lathjeera	*Achyranthes aspera* L.	Leaves	Herb	Leaves paste applied to affected part

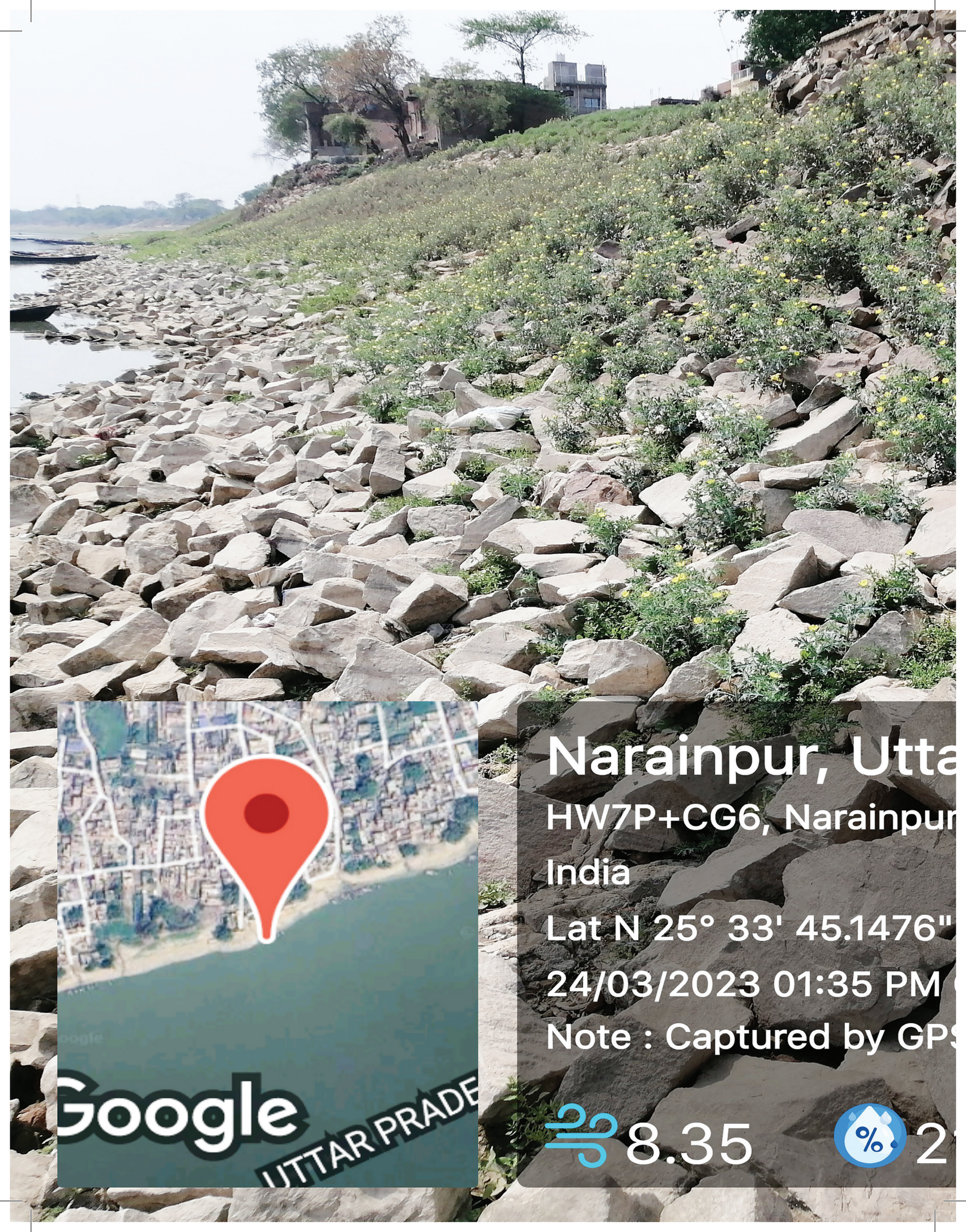
	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

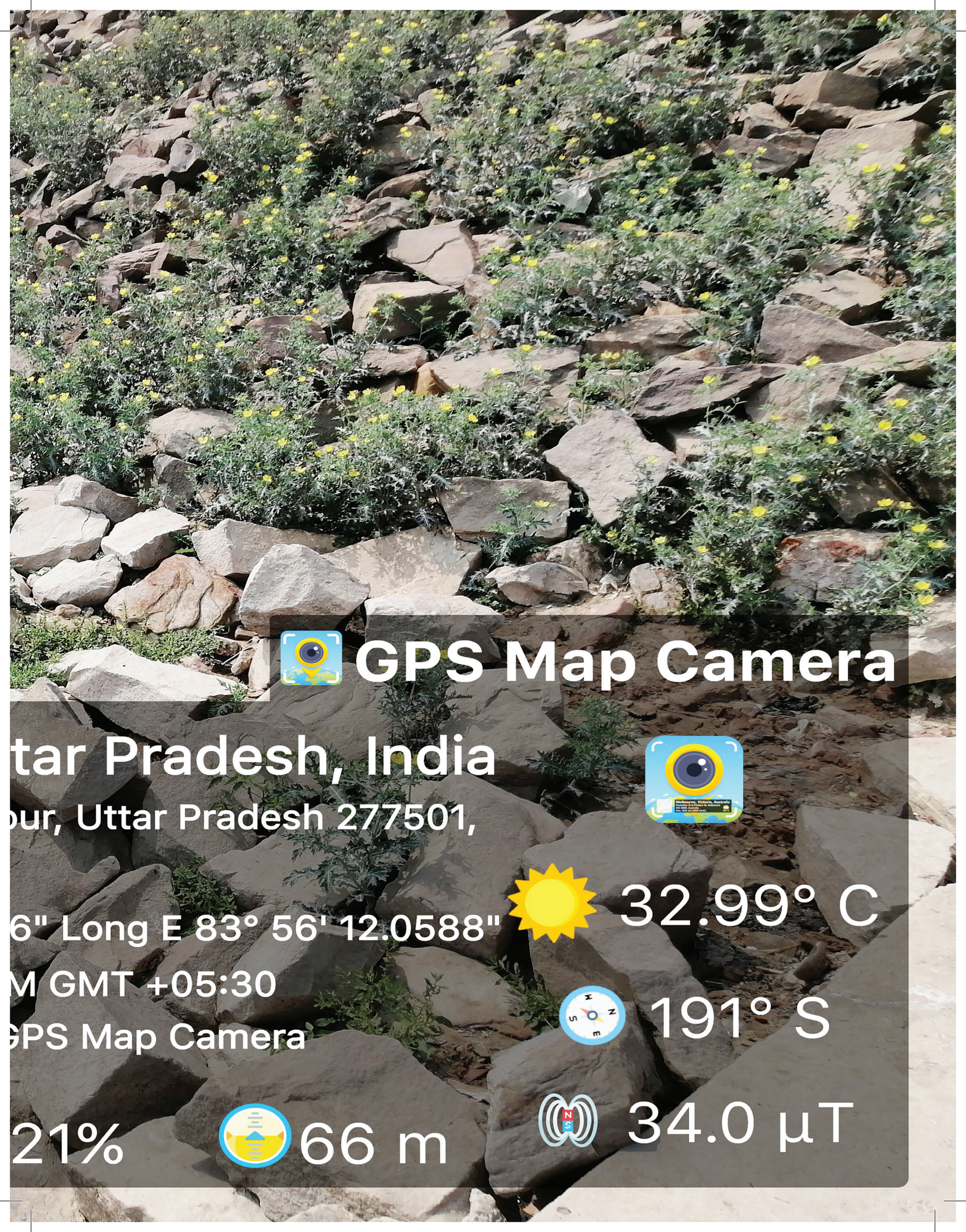
Respondent No.: 2.4.5.1

Name of Respondent: Mr. Rajendra Bharti

Age:	50	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Prayagraj	Occupation:	Farmer
Locality:	Dhanupur	Village:	Shankerpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied on affected area
3	Stomachache	Aamla	*Phyllanthus emblica* L.	Fruit	Tree	Make powder and take directly commonly known as Triphala
		Baheda	*Terminalia bellirica* (Gaertn.) Roxb.	Fruit	Tree	
		Haritaki	*Terminalia chebula* Retz.	Fruit	Tree	
4	Piles	Doobghas	*Cynodon dactylon* (L.) Pers.	Root	Herb	Powder taken
5	Nerves blockage	Badi Elaichi	*Amomum subulatum* Roxb.	Fruit	Herb	Directly taken
Informant/plant local information						
1	Source of plant material		Naturally occurring, Domesticated/Cultivated			
2	Availability of the plant material		Abundantly occurring			
3	Permission from the Forest department		Not required			
4	Storage of seasonal plants		Dry form, Powder form			
5	Guidance coordination & training		Whether training is required			Yes
			Do you feel to give training to others?			No
6	Publication		Do you feel to publish the knowledge?			Yes


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Respondent No.: 2.5.1.1

Name of Respondent: Mr. Ranvijay Singh

Age:	35	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Farmer
Locality:	Putlighar	Village:	Shastribridge	Phone No:	+91 9889769659

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction
2	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil and applied on painful part
3	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
4	Diarrhea & Dysentery	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
5	Fever	Parijat	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
		Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction
6	Boil/Eczema	Dhatura	*Datura stramonium* L.	Leaves	Herb	Leaves with warm oil applied on affected part
7	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Leaves	Shrub	A decoction

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.1.2

Name of Respondent: Mr. Vikas Dubey

Age:	35	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Farmer
Locality:	Putlighar	Village:	Putlighar	Phone No:	+91 9454994428

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction
2	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil applied on painful area
3	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
4	Diarrhea & Dysentery	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
5	Fever	Sahdevi	*Cyanthillium cinereum* (L.) H.Rob.	Whole Plant	Herb	A decoction
6	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
7	Boil/ Eczema	Dhatura	*Datura stramonium* L.	Leaves	Herb	Leaves with warm oil applied on affected part
8	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Leaves	Shrub	A decoction
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.5.2.1

Name of Respondent: Mr. Rohit Bind

Age:	18	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Tea shop
Locality:	Vindhyachal	Village:	Kali Khoh	Phone No:	+91 9120684618

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Sevda	*Streblus asper* Lour.	Leaves	Tree	Taken juice
2	Arthritis/Joint pain	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Fruit	Tree	Cooked in oil and paste applied
3	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder mixed with milk and taken
4	Fever	Sevda	*Streblus asper* Lour.	Leaves	Tree	Taken juice
5	Boil/Eczema	Chilbil	*Holoptelea integrifolia* (Roxb.) Planch.	Fruit	Tree	Cooked powder in oil is used on affected part
6	Spermatorrhea	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Mixed and taken homogenized mixture
		Kapuri	*Piper betle* L.	Leaves	Climber	
		Gudhal	*Hibiscus rosa-sinensis* L.	Flower	Shrub	Taken flower buds daily up to 20 days
7	Sugar/Gastric problem	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Fermented Juice

Informant/plant local information			
1	Source of plant material	Naturally occurring, Crude drug market	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.3.1

Name of Respondent: Mr. Banshidhar

Age:	63	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Farmer
Locality:	Vindhyachal	Village:	Bindhayshetra	Phone No:	+91 9889115253

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	Five leaves boiled in water and taken daily
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
3	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
4	Spermatorrohea	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Powder mixed with cow milk and taken twice daily
		Satawar	*Asparagus racemosus* Willd.	Root	Herb	
5	Boil/ Eczema	Suryamukhi	*Achyranthes aspera* L.	Leaves	Herb	Applied on affected part
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taking fermented juice
7	Nervous diseases	Kapuri	*Piper betle* L.	Leaves	Climber	A decoction
8	Mental disorder	Madanmast	*Artabotrys hexapetalus* (L.f.) Bhandari	Leaves	Tree	Taken leaves extract

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Authorized Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.3.2

Name of Respondent: Mr. Sheetala Prasad Soni

Age:	57	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Farmer
Locality:	Vindhyachal	Village:	Bindhayshetra	Phone No:	+91 9369667276

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	Five leaves boiled in water and taken daily
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
3	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
4	Spermatorrhea	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Powder mixed with cow milk and taken twice daily
		Satawar	*Asparagus racemosus* Willd.	Root	Herb	
5	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taking fermented juice
6	Nervous diseases	Kapuri	*Piper betle* L.	Leaves	Climber	A decoction
7	Others	Madanmast	*Artabotrys hexapetalus* (L.f.) Bhandari	Leaves	Tree	Taken leaves extract

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.4.1

Name of Respondent: Mr. Lal Baba

Age:	55	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Mata Ki Seva
Locality:	Vindhyachal	Village:	Akodhi	Phone No:	+91 8604107784

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Safed Kaner	*Nerium oleander* L.	Flower	Tree	Bud taken with jaggery
2	Asthma	Safed Kaner	*Nerium oleander* L.	Flower	Tree	Bud taken with jaggery
3	Headache	Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	Taken as a sweet dish (Halwa)
4	Arthritis/Joint pain	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Fruit	Tree	Cooked in oil and paste applied
		Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
5	Stomachache	Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	Taken as a sweet dish (Halwa)
6	Fever	Sevda	*Streblus asper* Lour.	Leaves	Tree	Taken juice
7	Boil/ Eczema	Chilbil	*Holoptelea integrifolia* (Roxb.) Planch.	Fruit	Tree	Cooked powder in oil is used on affected part
		Seej	*Euphorbia neriifolia* L.	Root	Shrub	Cooked in oil and paste applied on affected area
8	Sugar	Safed Sadabahar	*Catharanthus roseus* (L.) G.Don	Leaves	Herb	A decoction
9	Eye diseases	Bargad	*Ficus benghalensis* L.	Fruit	Tree	Taken fruit
10	Nasal sinus	Amrood	*Psidium guajava* L.	Fruit	Tree	Cooked in fire and taken
	Nervous diseases	Shankpushpi	*Convolvulus prostratus* Forssk.	Whole Plant	Herb	Tonic
	Physical disorder	Naagdon	*Euphorbia tithymaloides* L.	Stem	Shrub	Make a garland and wear it to disabled children

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal, Rare	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.5.1

Name of Respondent: Mr. Vishnu Sharan (Mahendra Nath)

Age:	76	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Priest
Locality:	Vindhyachal	Village:	Badagaon (Kusmi)	Phone No:	+91 8174876567

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough/Cold	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder taken with jaggery
2	Stomachache	Amaltaas	*Cassia fistula* L.	Whole Plant	Tree	A decoction
3	Jaundice/ Liver problem	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Fruit	Tree	A decoction
4	Snakebite/ Scorpion sting	Kaner	*Cascabela thevetia* (L.) Lippold	Leaves	Tree	Making paste with mustard oil and applied on affected part
5	Piles	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Bark	Tree	A decoction
6	Sugar	Gudmaar	*Gymnema sylvestre* (Retz.) R.Br. ex Sm.	Leaves	Climber	Directly taken
7	Nasal sinus	Amrood	*Psidium guajava* L.	Fruit	Tree	Directly cooked in fire and taken
8	Hair problem	Indrajao	*Wrightia tinctoria* (Roxb.) R.Br.	Leaves	Tree	Juice applied on hair scalp

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.6.1

Name of Respondent: Mrs. Bhangiya Devi Nishad

Age:	75	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Labour
Locality:	Ojhalapul	Village:	Ojhalapul	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	Boiled in water and taken daily
3	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
4	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
5	Diarrhea & Dysentery	Khalmuriya	*Tridax procumbens* L.	Whole Plant	Herb	A decoction
6	Fever	Bhatkatiya	*Solanum virginianum* L.	Root	Herb	A decoction
7	Boil/ Skin disease	Satyanashi	*Argemone mexicana* L.	Whole Plant	Herb	Juice extract applied externally
8	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taking fermented juice
Informant/plant local information						
1	Source of plant material		Naturally occurring			
2	Availability of the plant material		Abundantly occurring, Seasonal			
3	Permission from the Forest department		Not required			
4	Storage of seasonal plants		Dry form			
5	Guidance coordination & training		Whether training is required			No
			Do you feel to give training to others?			No
6	Publication		Do you feel to publish the knowledge?			Yes

Respondent No.: 2.5.6.2

Name of Respondent: Mrs. Sushila Devi

Age:	68	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Labour
Locality:	Ojhalapul	Village:	Ojhalapul	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
3	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
4	Diarrhea & Dysentery	Khalmuriya	*Tridax procumbens* L.	Whole Plant	Herb	A decoction
5	Boil/ Skin disease	Satyanashi	*Argemone mexicana* L.	Leaves Latex	Herb	Juice extract applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Vinegar
7	Ear & throat diseases	Chirchita	*Achyranthes aspera* L.	Leaves	Herb	Paste with oil applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.5.6.3

Name of Respondent: Mrs. Urmila Yadav

Age:	48	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Labour
Locality:	Ojhalapul	Village:	Ojhalapul	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
3	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
4	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
5	Skin problem	Satyanashi	*Argemone mexicana* L.	Whole Plant	Herb	Juice extract applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Vinegar
7	Ear & throat diseases	Chirchita	*Achyranthes aspera* L.	Leaves	Herb	Paste with oil applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 2.5.6.4

Name of Respondent: Mrs. Munni Devi Sonkar

Age:	52	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Labour
Locality:	Ojhalapul	Village:	Ojhalapul	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
3	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
4	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
5	Diarrhea & Dysentery	Khalmuriya	*Tridax procumbens* L.	Whole Plant	Herb	A decoction
6	Boil/ Skin disease	Satyanashi	*Argemone mexicana* L.	Leaves Latex	Herb	Juice extract applied externally
7	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Vinegar
8	Ear & throat diseases	Chirchita	*Achyranthes aspera* L.	Leaves	Herb	Paste with oil applied externally

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Authorized, Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.6.5

Name of Respondent: Mrs. Meherjiya Devi Nishad

Age:	72	Sex:	Female	Education:	None
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Labour
Locality:	Ojhalapul	Village:	Ojhalapul	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lasoda	*Cordia myxa* L.	Leaves	Tree	A decoction
2	Arthritis/Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	A decoction
3	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
4	Stomachache	Satawar	*Asparagus racemosus* Willd.	Root	Herb	Powder taken with milk
5	Fever	Bhatkatiya	*Solanum virginianum* L.	Root	Herb	A decoction
6	Boil/ Skin disease	Satyanashi	*Argemone mexicana* L.	Whole Plant	Herb	Juice extract applied externally
7	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Vinegar

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.5.7.1

Name of Respondent: Mr. Sant Kumar Singh

Age:	38	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Mirzapur	Occupation:	Farmer
Locality:	Kasama Bazar	Village:	Aanandpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction taken at night after a meal
		Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	
		Parijat	*Nyctanthes arbor-tristis* L.	Leaves	Tree	
		Kali mirch	*Piper nigrum* L.	Seeds	Climber	
2	Asthma	Arus	*Justicia adhatoda* L.	Leaves	Shrub	Make a decoction of 5-8 dried leaves of each plant in water. After having decoction cow milk is taken necessary; water is prohibited
		Siris	*Albizia lebbeck* (L.) Benth.	Leaves	Tree	
		Bhatkatiya	*Solanum virginianum* L.	Leaves	Herb	
3	Toothache	Bhatkatiya	*Solanum virginianum* L.	Seeds	Herb	Taking burning fumes
4	Stomachache	Godan	*Euphorbia hirta* L.	Whole Plant	Herb	Taken powder
5	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
	Boil/ Eczema	Suryamukhi	*Achyranthes aspera* L.	Leaves	Herb	Paste applied on affected part
6	Impotency	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Root juice taken with batasha
7	Menstrual problems	Doobghas	*Cynodon dactylon* (L.) Pers.	Whole Plant	Herb	Plant juice taken before sunrise daily
8	Leprosy	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Paste applied on affected part

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.1.1

Name of Respondent: Mr. Subhash Chandra

Age:	79	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Harhua	Village:	Hariharpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Fruit	Herb	Boil in oil, discard waste, and extract used in the affected part
3	Boil	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied to affected part
4	Spermatorrhea	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Powder mixed with cow milk and taken twice daily
5	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Stem, Leaves	Shrub	Rubbed on teeth for tooth clearing/ use a decoction
6	Pain/Swelling	Behaya	*Ipomoea carnea* subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin	Leaves	Shrub	Leaves are wrapped with warm mustard oil on affected part
		Sahjan	*Mikania micrantha* Kunth	Seeds	Tree	Oil applied externally

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring. Seasonal	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
5	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.1.2

Name of Respondent: Mr. Sunil Kumar Bhardwaj

Age:	52	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Harhua	Village:	Hariharpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Toothache	Bhatkatiya	*Solanum virginianum* L.	Fruit	Herb	Boil in oil, discard waste, and extract use in affected part
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Boil	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied on affected part
5	Sugar	Bhatesh	*Clerodendrum infortunatum* L.	Stem, Leaves	Shrub	Rubbed on teeth for tooth clearing/ use a decoction
6	Pain/ Swelling	Behaya	*Ipomoea carnea* subsp. *fistulosa* (Mart. ex Choisy) D.F.Austin	Leaves	Shrub	Leaves are wrapped with warm mustard oil on affected part
		Sahjan	*Moringa oleifera* Lam.	Seeds	Tree	Oil applied externally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.2.1

Name of Respondent: Mr. Nitish Yadav

Age:	20	Sex:	Male	Education:	Graduation
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Student
Locality:	Shankarpur	Village:	Ramgaon	Phone No:	+91 8957724608

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Fever	Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	A decoction
5	Boil/ Wounds	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taken fermented juice
		Aamla	*Phyllanthus emblica* L.	Fruit	Tree	
7	Ear & throat diseases	Lattar	*Crinum asiaticum* L.	Leaves	Herb	A decoction of leaves put in the ear as ear drop
8	Hair problem	Bhatkatiya	*Solanum virginianum* L.	Whole Plant	Herb	A decoction is applied on the scalp for hair fall

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.2.2

Name of Respondent: Mr. Munnu Yadav

Age:	50	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Shankarpur	Village:	Ramgaon	Phone No:	+91 8573820595

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make aq decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Fever	Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	A decoction
5	Boil/ Wounds	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taken fermented juice
		Aamla	*Phyllanthus emblica* L.	Fruit	Tree	
7	Ear & throat diseases	Lattar	*Crinum asiaticum* L.	Leaves	Herb	A decoction of leaves put in the ear as ear drop
8	Hair problem	Bhatkatiya	*Solanum virginianum* L.	Whole Plant	Herb	A decoction is applied on the scalp for hair fall

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.2.3

Name of Respondent: Mr. Ram Shakal Yadav

Age:	45	Sex:	Male	Education:	None
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Shankarpur	Village:	Ramgaon	Phone No:	+91 8726476109

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make adecoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Fever	Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	A decoction
5	Boil/ Wounds	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taken fermented juice
		Aamla	*Phyllanthus emblica* L.	Fruit	Tree	
7	Ear & throat diseases	Lattar	*Crinum asiaticum* L.	Leaves	Herb	A decoction of leaves put in the ear as ear drop
8	Hair problem	Bhatkatiya	*Solanum virginianum* L..	Whole Plant	Herb	A decoction is applied on the scalp for hair fall

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.2.4

Name of Respondent: Mr. Raj Kumar Yadav

Age:	26	Sex:	Male	Education:	High School
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Shankarpur	Village:	Ramgaon	Phone No:	+91 8726476109

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Fever	Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	A decoction
5	Boil/ Wounds	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taken fermented juice
		Aamla	*Phyllanthus emblica* L.	Fruit	Tree	
7	Ear & throat diseases	Lattar	*Crinum asiaticum* L.	Leaves	Herb	A decoction of leaves put in the ear as ear drop
8	Hair problem	Bhatkatiya	*Solanum virginianum* L.	Whole Plant	Herb	A decoction is applied on the scalp for hair fall

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.6.2.5

Name of Respondent: Mr. Surya Mishra

Age:	28	Sex:	Male	Education:	MBA
State:	Uttar Pradesh	District:	Varanasi	Occupation:	Farmer
Locality:	Shankarpur	Village:	Ramgaon	Phone No:	+91 7408771935

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Chewed
3	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
4	Fever	Guruch	*Tinospora crispa* (L.) Hook.f. & Thomson	Whole Plant	Climber	A decoction
5	Boil/ Wounds	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Latex	Shrub	Applied externally
6	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Taken fermented juice
		Aamla	*Phyllanthus emblica* L.	Fruit	Tree	
7	Ear & throat diseases	Lattar	*Crinum asiaticum* L.	Leaves	Herb	A decoction of leaves put in the ear as ear drop
8	Hair problem	Bhatkatiya	*Solanum virginianum* L.	Whole Plant	Herb	A decoction is applied on the scalp for hair fall

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.7.1.1

Name of Respondent: Mr. Rajesh Prashad Nishad

Age:	47	Sex:	Male	Education:	Intermediate
State:	Uttar Pradesh	District:	Ballia	Occupation:	Fisherman
Locality:	Sikanderpur	Village:	Kotwa	Phone No:	+91 6306233354

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied on the affected area
2	Stomachache	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
3	Anemia	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
4	Jaundice	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
5	Piles	Chirchita	*Achyranthes aspera* L.	Whole Plant	Herb	Intake
6	Boil	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied externally
7	Eye diseases	Satyanashi	*Argemone mexicana* L.	Leaves Latex	Herb	Applied externally
8	Ear & throat diseases	Chirchita	*Achyranthes aspera* L.	Leaves	Herb	Leaves paste and oil applied externally
9	Wounds/ Eczema	Satyanashi	*Argemone mexicana* L.	Seeds	Herb	Fried seeds are applied to the affected area

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.7.1.2

Name of Respondent: Mr. Mahendra Paswan

Age:	62	Sex:	Male	Education:	7th
State:	Uttar Pradesh	District:	Ballia	Occupation:	Fisherman
Locality:	Sikanderpur	Village:	Kotwa	Phone No:	+91 6306233354

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied on the affected area
2	Stomachache	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
3	Anemia	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
4	Jaundice	Jalkumbhi	*Pontederia crassipes* Mart.	Whole Plant	Herb	A decoction
5	Piles	Chirchita	*Achyranthes aspera* L.	Whole Plant	Herb	Intake
6	Boil	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Applied externally
7	Eye diseases	Satyanashi	*Argemone mexicana* L.	Leaves Latex	Herb	Applied externally
8	Ear & throat diseases	Chirchita	*Achyranthes aspera* L.	Leaves	Herb	Leaves paste and oil applied externally
9	Wounds/ Eczema	Satyanashi	*Argemone mexicana* L.	Seeds	Herb	Fried seeds are applied on affected area

	Informant/plant local information		
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 2.7.2.1

Name of Respondent: Mr. Vijay Shankar

Age:	40	Sex:	Male	Education:	Graduation
State:	Uttar Pradesh	District:	Ballia	Occupation:	Farmer
Locality:	Ballia	Village:	Narishpurnath	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Lehsun	*Allium sativum* L.	Bulb	Herb	Taken directly
2	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil and wrapped on the affected part
3	Toothache	Lathjeera	*Achyranthes aspera* L.	Stem, Leaves	Herb	Powder use as paste
4	Anemia	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
5	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

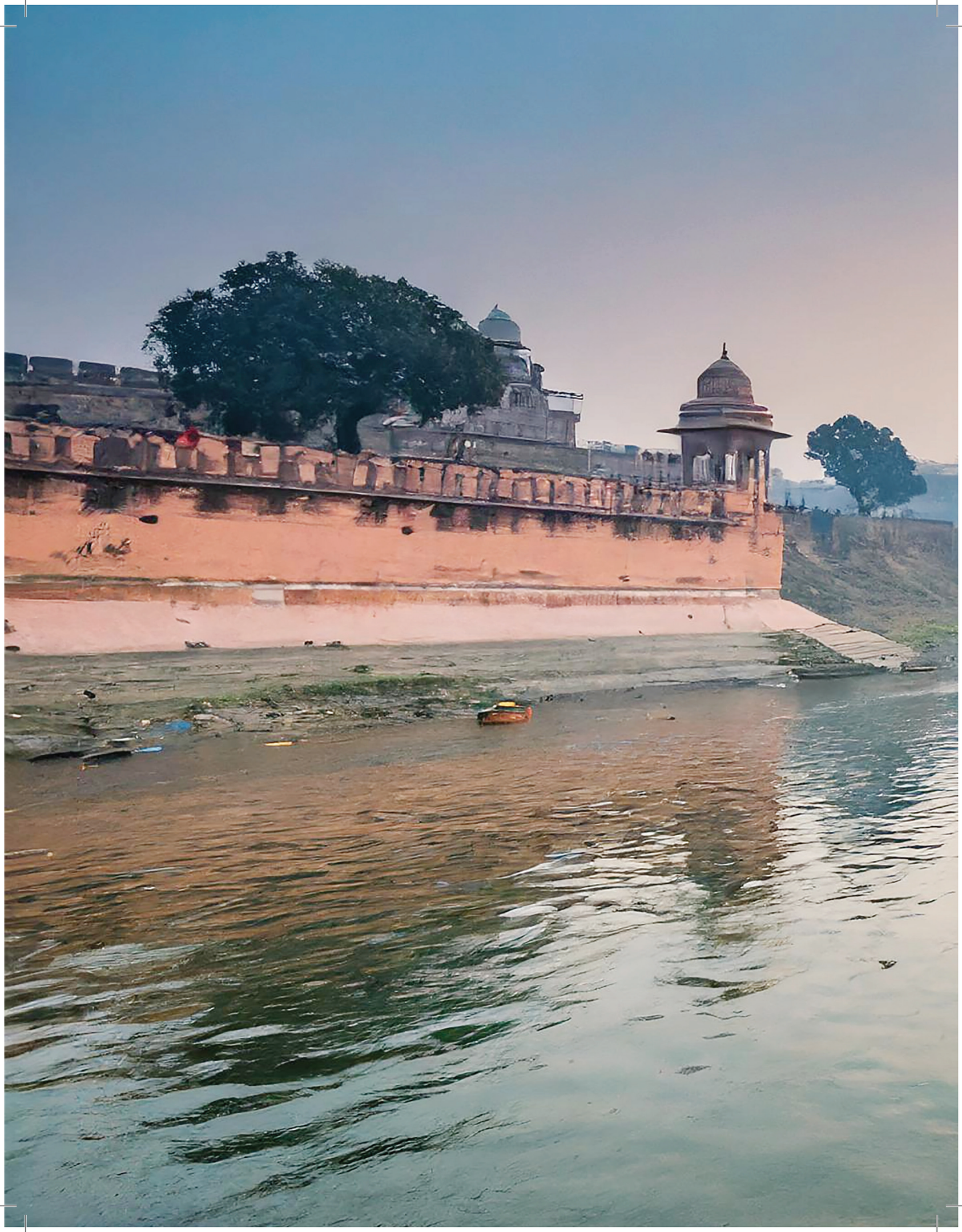
Respondent No.: 2.7.2.2

Name of Respondent: Mr. Ramcheej Chaudhary

Age:	67	Sex:	Male	Education:	4th
State:	Uttar Pradesh	District:	Ballia	Occupation:	Farmer
Locality:	Ballia	Village:	Narishpurnath	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil and applied on a painful part
2	Toothache	Lathjeera	*Achyranthes aspera* L.	Stem, Leaves	Herb	Powder use as paste
3	Stomachache	Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	Leaves sap taken
4	Anemia	Makoi	*Solanum nigrum* L.	Whole Plant	Herb	A decoction
5	Jaundice	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction
6	Boil	Lathjeera	*Achyranthes aspera* L.	Leaves	Herb	Leaves paste applied to affected part
7	Sugar	Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	Fermented Juice
8	Leprosy	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Paste applied on the affected part

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes





Respondent No.: 3.1.1.1

Name of Respondent: Mr. Dharmveer Prasad

Age:	40	Sex:	Male	Education:	8th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Ubana	Phone No:	+91 9973709044

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/ Joint pain	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste is applied on the affected part
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.2

Name of Respondent: Mr. Vidyapati Yadav

Age:	53	Sex:	Male	Education:	6th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Kanhaipur, Mokama	Phone No:	+91 9097311275

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken
2	Boil	Shahtoot	*Morus alba* L.	Leaves	Climber	Leaves paste applied on the affected part
3	Mouth ulcer	Pudina	*Mentha spicata L.*	Leaves	Herb	The paste is applied topically
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
5	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.3

Name of Respondent: Dr. Agnesh Kumar

Age:	52	Sex:	Male	Education:	MBBS, DCH
State:	Bihar	District:	Patna	Occupation:	Doctor
Locality:	Barh	Village:	Dhelwogoshoin, Barh	Phone No:	+91 8757015573

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Fresh parts are chewed
2	Fever	Harsingar, Parijat	*Nyctanthes arbor-tristis* L.	Leaves	Tree	Leaves paste applied to the affected part

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.1.1.4

Name of Respondent: Mr. Rajiv Ranjan Kumar

Age:	50	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Deebar	Phone No:	+91 9973107633

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Diarrhea & Dysentery	Chai Patti	*Camellia sinensis* (L.) Kuntze	Leaves	Herb	A decoction is used
3	Arthritis/Joint pain	Mevdi	*Vitex negundo* L.	Leaves	shrub	A warm poultice of leaves is applied to the affected area
4	Jaundice	Kheera (Cucumber)	*Cucumis sativus* L.	Fruit	Climber	Consumed as fresh
5	Mouth ulcer/ Toothache	Paan	*Piper betle* L.	Leaves	Climber	The paste is applied to the affected area
6	Stomachache	Lemon	*Citrus limon*	Fruit	Tree	Juice is mixed in water to drink
7	Malaria/ Dengue	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. &Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.5

Name of Respondent: Mr. Pramod Kumar

Age:	38	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Chaknawada	Phone No:	+91 8294584081

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Leaves juice is taken with water
2	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Warm leaves are applied to joints
3	Boil	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Leaves paste is applied on the affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.6

Name of Respondent: Mr. Prakash Kumar

Age:	23	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Ramadigha	Phone No:	+91 8810357575

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Kali mirch	*Piper nigrum* L.	Seed	Climber	Make a decoction and take
		Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	Leaves paste is taken with water
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.7

Name of Respondent: Mrs. Asha Devi

Age:	65	Sex:	Female	Education:	7th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 9664199396

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder taken with jaggery
2	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Roots are soaked in water and then taken
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.8

Name of Respondent: Mrs. Shashikala Devi

Age:	45	Sex:	Female	Education:	High School
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken orally
2	Hemorrhoids (Piles)	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste is applied on the affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.9

Name of Respondent: Mrs. Manisha Kumari

Age:	23	Sex:	Female	Education:	Graduation
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 6206856147

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
3	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	leaves	Shrub	Leaves juice is taken with water
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.10

Name of Respondent: Mrs. Doli Kumari

Age:	18	Sex:	Female	Education:	Graduation
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 9304084763

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
3	Cough	Kali Mirch	*Piper nigrum* L.	Seed	Climber	Mix and make a decoction along
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.11

Name of Respondent: Mr. Kausehendra Prasad

Age:	44	Sex:	Male	Education:	7th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 8757711364

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	A decoction is taken orally
2	Hemorrhoids (Piles)	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied to the affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.12

Name of Respondent: Mrs. Soni Devi

Age:	28	Sex:	Female	Education:	High School
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Bhagwanpur	Phone No:	+91 6202687595

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth Ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
4	Hemorrhoids (Piles)	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.13

Name of Respondent: Mrs. Rinki Kumari

Age:	30	Sex:	Female	Education:	5th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Bhagwanpur	Phone No:	+91 9135716546

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Diabetes	Sadabahar	*Catharanthus roseus* (L.) G.Don	Leaves	Herb	A decoction is taken orally
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
4	Hemorrhoids (Piles)	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.14

Name of Respondent: Mrs. Deepmala Devi

Age:	32	Sex:	Female	Education:	7th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 8797040815

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Infusion is taken orally
3	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Paste is taken orally
4	Diabetes	Insulin	*Hellenia speciosa* (J.Koenig) S.R.Dutta	Leaves	Herb	Paste is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.15

Name of Respondent: Mrs. Malti Devi

Age:	38	Sex:	Female	Education:	High School
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.16

Name of Respondent: Mrs. Bacchi Devi

Age:	65	Sex:	Female	Education:	3rd
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	A decoction is taken orally
2	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Paste is taken orally
3	Diabetes	Neem	*Azadirachta indica* A.Juss.	Leaves	Tree	Tender leaves are eaten
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.17

Name of Respondent: Mrs. Lalmuni Devi

Age:	35	Sex:	Female	Education:	5th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 9525731007

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Diabetes	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken
3	Fever	Lemon	*Citrus × limon* (L.) Osbeck	Fruit	Tree	Juice pore in water then drink
4	Hemorrhoids (Piles)	Neem	*Azadirachta indica* A.Juss.	Leaves	Tree	Tender leaves are taken with water

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.1.1.18

Name of Respondent: Mr. Ashok Mandal

Age:	35	Sex:	Male	Education:	High School
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 9002631789

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Infusion is taken orally
3	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Raw fruits cooked as a vegetable
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.19

Name of Respondent: Mrs. Munni Devi

Age:	50	Sex:	Female	Education:	3rd
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Jaundice	Hadjod	*Cissus quadrangularis* L.	Stem	Climber	A decoction is taken orally
3	Diabetes	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.20

Name of Respondent: Mrs. Gyanti Devi

Age:	45	Sex:	Female	Education:	7th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder is taken with jaggery
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Infusion is taken orally
3	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Paste is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes





Respondent No.: 3.1.1.21

Name of Respondent: Mrs. Usha Devi

Age:	50	Sex:	Female	Education:	5th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Fever	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion is taken or chewing seeds
2	Hemorrhoids (Piles)	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
3	Arthritis/ Joint pain	Arandi	*Ricinus communis* L.	Seed	Shrub	Oil applied on affected parts
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.22

Name of Respondent: Mrs. Rinku Kumari

Age:	35	Sex:	Female	Education:	Intermediate
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 8210431096

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	Infusion is taken orally
2	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Paste is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.1.1.23

Name of Respondent: Mrs. Rinku Devi

Age:	38	Sex:	Female	Education:	High School
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Jamunichak	Phone No:	+91 9833768314

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Make a decoction in milk and take orally
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.24

Name of Respondent: Mrs. Kumari Rakshisama

Age:	48	Sex:	Female	Education:	4th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Agwanpur	Phone No:	+91 7739535198

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Make a decoction in milk and take it orally
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction
3	Eye disease	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	Juice dropped in the eyes
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.25

Name of Respondent: Mrs. Reeta Devi

Age:	60	Sex:	Female	Education:	None
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Agwanpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion is taken along with chewing seeds
2	Jaundice	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	A leaf is taken with Banana fruits
		Kela	*Musa* × *paradisiaca* L.	Fruit	Herb	
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required			No	
		Do you feel to give training to others?			No	
6	Publication	Do you feel to publish the knowledge?			Yes	

Respondent No.: 3.1.1.26

Name of Respondent: Mr. Pankaj Ram

Age:	28	Sex:	Male	Education:	8th
State:	Bihar	District:	Nawada	Occupation:	Fisherman & Farmer
Locality:	Nawada	Village:	Poaj	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Boil	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste is applied on the affected part
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.27

Name of Respondent: Mr. Wishawar Mahto

Age:	60	Sex:	Male	Education:	High School
State:	Bihar	District:	Samastipur	Occupation:	Farmer
Locality:	Uttar Bihar	Village:	Barh	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Rhizome	Herb	Juice is used orally
3	Hemorrhoids (Piles)	Arandi	*Ricinus communis* L.	Seed	Shrub	Oil is applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.1.28

Name of Respondent: Mr. Gautam Kumar

Age:	22	Sex:	Male	Education:	High School
State:	Bihar	District:	Samastipur	Occupation:	Fisherman
Locality:	Nalanda	Village:	Babapuri	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction for a drink
		Peepli	*Piper longum* L.	Flower	Climber	
		Dalchini	*Cinnamomum verum* J.Presl	Bark	Tree	
2	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seeds are soaked in water and taken in the morning
3	Jaundice	Kela	*Musa* × *paradisiaca* L.	Fruit	Herb	Consumed as fresh
		Kheera (Cucumber)	*Cucumis sativus* L.	Fruit	Herb	Consumed as fresh
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.2.1

Name of Respondent: Mr. Baleshwar Rai

Age:	65	Sex:	Male	Education:	4th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Patna	Village:	Tirashia Diara	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe.	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	The fresh parts are chewed
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.2.2

Name of Respondent: Mrs. Geeta Devi

Age:	65	Sex:	Female	Education:	3rd
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Barh	Village:	Agwanpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.2.3

Name of Respondent: Mr. Rangnath Krishna Chandra

Age:	55	Sex:	Male	Education:	8th
State:	Bihar	District:	Patna	Occupation:	Fisherman
Locality:	Chhapra	Village:	Tirashia Diara	Phone No:	+91 9599078766

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Juice is taken
3	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Latex	Tree	Make a paste with mustard oil and apply
4	Hemorrhoids (Piles)	Arandi	*Ricinus communis* L.	Seed	Shrub	Oil applied externally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.1.2.4

Name of Respondent: Mr. Trivendra Rai

Age:	60	Sex:	Male	Education:	8th
State:	Bihar	District:	Patna	Occupation:	Fisherman & Farmer
Locality:	Chhapra	Village:	Tirashia Diara	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Harsingar, Parijat	*Nyctanthes arbor-tristis* L.	Leaves, Flower	Tree	Juice is taken
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.2.5

Name of Respondent: Mr. Surendra Prasad Gupta

Age:	62	Sex:	Male	Education:	5th
State:	Bihar	District:	Patna	Occupation:	Farmer
Locality:	Chhapra	Village:	Tirashia Diara	Phone No:	+91 9599078766

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	The fresh parts are chewed
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.1.2.6

Name of Respondent: Mr. Santosh Kumar Goutam

Age:	46	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Bakshar	Occupation:	Contractor
Locality:	Bakshar	Village:	Basawn	Phone No:	+91 9470029060

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Hemorrhoids (Piles)	Naag Dron	*Euphorbia tithymaloides* L.	Leaves	Shrub	The paste is applied externally
3	Blood Pressure	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction or fresh Juice is taken
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.2.1.1

Name of Respondent: Mr. Ram Prakash Saran

Age:	50	Sex:	Male	Education:	High School
State:	Jharkhand	District:	Munger	Occupation:	Farmer
Locality:	Sahibganj	Village:	Basdevpur	Phone No:	+91 6207709218

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Unripe fruits are cooked and taken as vegetable
4	Diabetes	Lemon	*Citrus × limon* (L.) Osbeck	Fruit	Tree	Juice is poured into water then drink
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.2.1.2

Name of Respondent: Mr. Ambika Prasad Yadav

Age:	55	Sex:	Male	Education:	Intermediate
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Munger	Village:	Shagampur	Phone No:	+91 9204615869

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Peepli	*Piper longum* L.	Fruit	Climber	Make a decoction with Laung & Cinnamon, and use it orally
2	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
4	Jaundice	Kheera, Cucumber	*Cucumis sativus* L.	Fruit	Climber	Fresh fruits are eaten
5	Sugar	Mulethi	*Glycyrrhiza glabra* L.	Root	Shrub	A decoction is used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.2.1.3

Name of Respondent: Mr. Sujeet Kumar Singh

Age:	50	Sex:	Male	Education:	8th
State:	Jharkhand	District:	Munger	Occupation:	Farmer
Locality:	Munger	Village:	Pain Tilakpur	Phone No:	+91 7542867909

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and taken
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Flowers are chewed
3	Jaundice	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
4	Diabetes	Banana	*Musa × paradisiaca* L.	Fruit	Herb	Fresh fruits are eaten
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.1.1

Name of Respondent: Mr. Vijay Singh

Age:	35	Sex:	Male	Education:	4th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachia	Village:	Mahadatpur	Phone No:	+91 8298457426

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken
2	Joint pain/ aerthritis	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion or taking the soaked seeds in the morning
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.1.2

Name of Respondent: Mr. Chandrika Prasad Yadav

Age:	45	Sex:	Male	Education:	Graduation
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	+91 9308529600

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Harsingar, Parijat	*Nyctanthes arbor-tristis* L.	Leaves, Flower	Tree	Leaves a decoction or flower juice is taken orally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.3.1.3

Name of Respondent: Mrs. Ranjan Devi

Age:	53	Sex:	Female	Education:	4th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	+91 9006916419

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough/Cold	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder taken with jaggery
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Hemorrhoids (Piles)	Arandi	*Ricinus communis* L.	Fruit	Tree	Oil applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.1.4

Name of Respondent: Mr. Bhawesh Kumar

Age:	41	Sex:	Male	Education:	Graduation
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	+91 7991131700

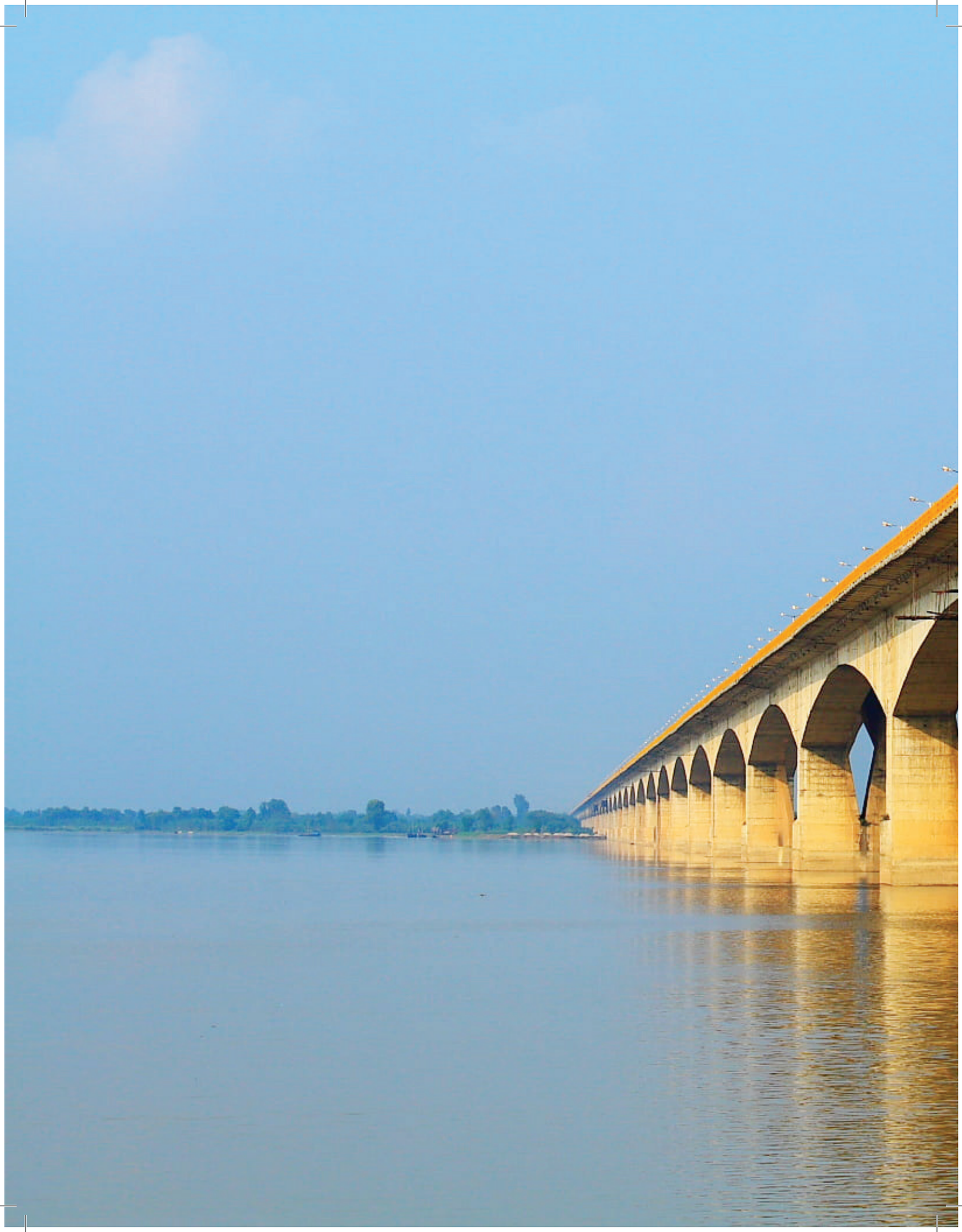
	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
2	Jaundice	Banana	*Musa × paradisiaca* L.	Fruit	Herb	Fresh ripe fruits are eaten
		Papita	*Carica papaya* L.	Fruit	Tree	Unripe fruits are cooked as vegetables and eaten
3	Eye Disease	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	One drop of leaf juice is applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

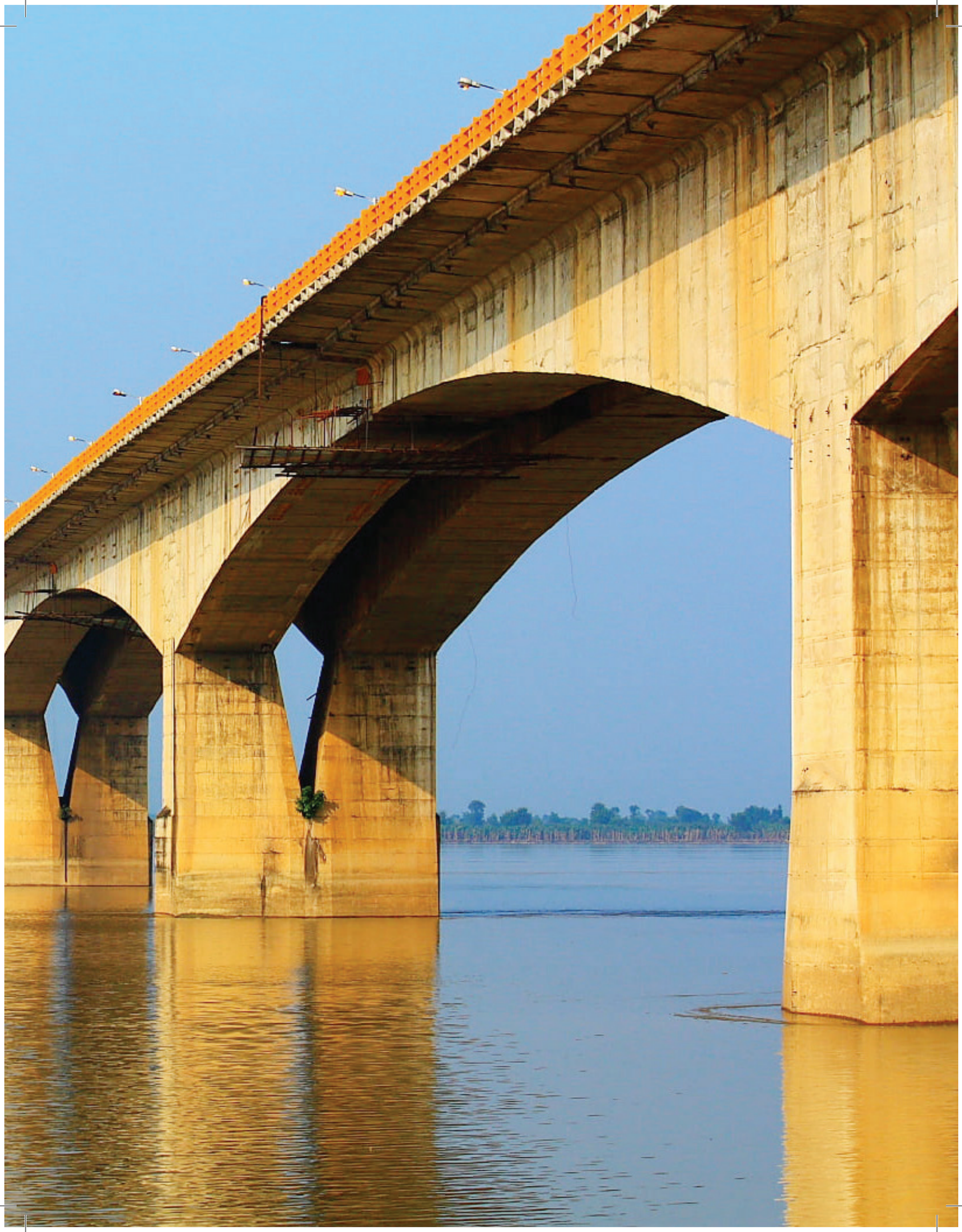
Respondent No.: 3.3.1.5

Name of Respondent: Mrs. Aruna Devi

Age:	46	Sex:	Female	Education:	5th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer / Toothache	Paan, Betal leaf	*Piper betle* L.	Leaves	Shrub	Leaves paste applied to affected part
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Eye disease	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	One drop of juice applied as an eye drop
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes





Respondent No.: 3.3.1.6

Name of Respondent: Mr. Nand Kishor Singh

Age:	45	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	+91 9709924053

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion and the soaked seeds are taken in the morning
3	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Flowers are chewed
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.1.7

Name of Respondent: Mrs. Anita Devi

Age:	56	Sex:	Female	Education:	5th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Mouth ulcer / Toothache	Betel leaf, Paan	*Piper betle* L.	Leaves	Climber	Leaves paste applied to the affected part
2	Stomachache	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken orally
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
4	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Unripe fruits are cooked as vegetables and eaten
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.1.8

Name of Respondent: Mrs. Gyanwati Devi

Age:	48	Sex:	Female	Education:	4th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Naugachiya	Village:	Mahadatpur	Phone No:	+91 9534060580

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Heated leaves with oil and wrapped on the affected part
2	Jaundice	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.1

Name of Respondent: Mr. Pramod Kumar Yadav

Age:	46	Sex:	Male	Education:	11th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Farka	Village:	English Farka	Phone No:	+91 9546632818

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Fever	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seeds are soaked in water and taken in the morning
3	Jaundice	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
4	Diabetes	Lemon	*Citrus × limon* (L.) Osbeck	Fruit	Tree	Juice is poured into water then drink
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.2

Name of Respondent: Mr. Vidyadhar Yadav

Age:	39	Sex:	Male	Education:	High School
State:	Jharkhand	District:	Bhagalpur	Occupation:	Farmer
Locality:	Farka	Village:	Farka	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves paste is mixed in water and then taken orally
2	Arthritis/ Joint pain	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Warm leaves are wet with an oil and wrapped on the affected part
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.3

Name of Respondent: Mr. Diwakar Mandal

Age:	32	Sex:	Male	Education:	High School
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Farka	Village:	English Farka	Phone No:	+91 8969842474

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Diarrhea & Dysentery	Bael	*Aegle marmelos* (L.) Corrêa	Fruit	Tree	Ripe fruit is eaten
3	Jaundice	Banana	*Musa × paradisiaca* L.	Fruit	Herb	Ripe fruit is eaten
		Papita	*Carica papaya* L.	Fruit	Tree	The unripe fruit is cooked as a vegetable and eaten
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.4

Name of Respondent: Mr. Umesh Kumar Yadav

Age:	53	Sex:	Male	Education:	High School
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Farka	Village:	Farka	Phone No:	+91 9771925352

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make A decoction
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Stomachache	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Make a decoction followed by adding black salt
		Ajwain	*Trachyspermum ammi* (L.) Sprague	Seed	Herb	

Informant/plant local information			
1	Source of plant material	Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	Yes
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.3.2.5

Name of Respondent: Dr. Niranjan Kumar Mandal

Age:	48	Sex:	Male	Education:	MBBS
State:	Bihar	District:	Bhagalpur	Occupation:	Doctor
Locality:	Farka	Village:	Kurpat, Sabour	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken
2	Boil	Shahtoot	*Morus alba* L.	Leaves	Tree	The paste is applied to the affected part
3	Diabetes	Amla	*Phyllanthus emblica* L.	Fruit	Tree	Mix and make fermented juice
		Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.6

Name of Respondent: Mr. Rishikesh Singh

Age:	34	Sex:	Male	Education:	6th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Bhagalpur	Village:	Kurpat, Sabour	Phone No:	+91 8969842474

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is taken orally
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves in fusion are taken orally
3	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Unripe fruits are cooked as vegetables and eaten

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.3.2.7

Name of Respondent: Mr. Ram Lakhan Yadav

Age:	46	Sex:	Male	Education:	High School
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Bhagalpur	Village:	Kurpat, Sabour	Phone No:	+91 9773990882

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	A decoction is taken orally
2	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Leaves in fusion are taken orally
3	Diarrhea & Dysentery	Bael	*Aegle marmelos* (L.) Corrêa	Fruit	Tree	The ripe fruit pulp is eaten
4	Jaundice	Sugarcane	*Saccharum officinarum* L.	Stem	Herb	Fresh juice is consumed

	Informant/plant local information		
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.3.2.8

Name of Respondent: Mr. Gautam Kumar Goswami

Age:	29	Sex:	Male	Education:	7th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Bhagalpur	Village:	Kurpat, Sabour	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
3	Mouth ulcer	Ninai	*Acmella oleracea* (L.) R.K.Jansen	Flower	Herb	Flowers are chewed
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.9

Name of Respondent: Mr. Shiv Kumar Mandal

Age:	29	Sex:	Male	Education:	High School
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Bhagalpur	Village:	Kurpat, Sabour	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water and then taken
2	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion along with soaked seeds are taken
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is taken orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.3.2.10

Name of Respondent: Mr. Vinod Kumar Yadav

Age:	28	Sex:	Male	Education:	5th
State:	Bihar	District:	Bhagalpur	Occupation:	Farmer
Locality:	Bhagalpur	Village:	Kurpat, Sabour	Phone No:	None

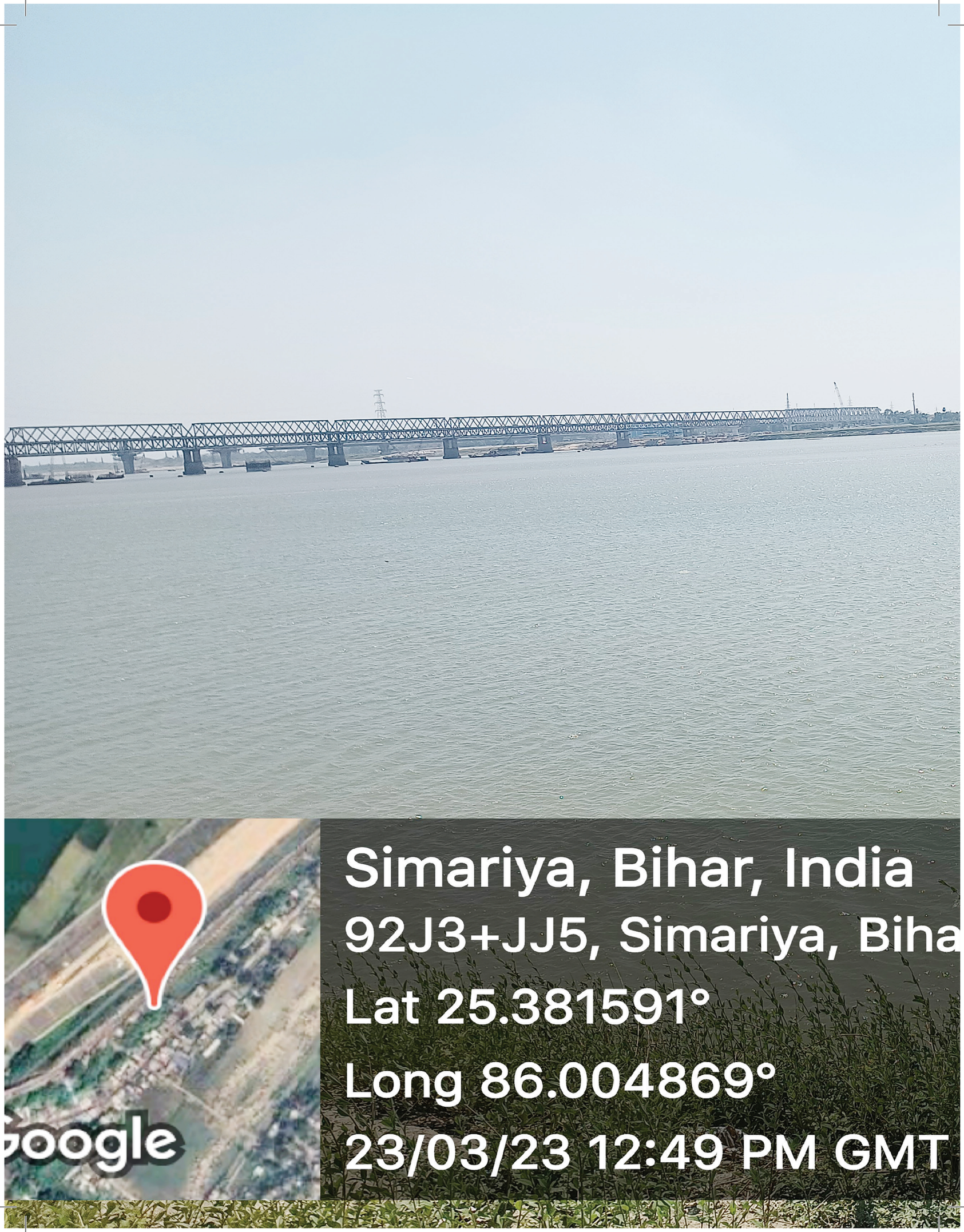
	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seed infusion along with soaked seeds are taken
2	Eye diseases	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A few drops of extract are applied externally
Informant/plant local information						
1	Source of plant material	Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.1

Name of Respondent: Mr. Chhotu Kumar

Age:	20	Sex:	Male	Education:	Intermediate
State:	Bihar	District:	Saran	Occupation:	Fishermen
Locality:	Nawada	Village:	Rivalganj	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Fresh juice is taken with water
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes


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Respondent No.: 3.4.1.2

Name of Respondent: Mr. Raja Kumar

Age:	22	Sex:	Male	Education:	High School
State:	Bihar	District:	Nawada	Occupation:	Fisherman
Locality:	Nawada	Village:	Saran	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder taken with jaggery
2	Arthritis/Joint pain	Methi	*Trigonella foenum-graecum* L.	Seed	Herb	Seeds are soaked in water and taken in the morning
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. &Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.3

Name of Respondent: Mr. Shyam Bihari

Age:	55	Sex:	Male	Education:	3rd
State:	Bihar	District:	Nawada	Occupation:	Fisherman
Locality:	Nawada	Village:	Saran	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.4

Name of Respondent: Mr. Ajay Kumar Yadav

Age:	44	Sex:	Male	Education:	Post Graduation
State:	Bihar	District:	Saran	Occupation:	Farmer
Locality:	Rivalganj	Village:	Bagahi	Phone No:	+91 9973302578

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder is mixed with Jaggery and taken
2	Jaundice	Ganna, Sugarcane	*Saccharum officinarum* L.	Stem	Herb	Juice is taken regularly
3	Diabetes	Amla	*Phyllanthus emblica* L.	Fruit	Tree	Fermented mixed Juice is taken orally
		Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.5

Name of Respondent: Mr. Yadunandan Singh

Age:	64	Sex:	Male	Education:	5th
State:	Bihar	District:	Patna	Occupation:	Farmer (Mushroom)
Locality:	Rivalganj	Village:	Bagahi	Phone No:	+91 9631436531

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves are soaked in water then the infusion is taken
2	Toothache	Peeli Kaner	*Cascabela thevetia* (L.) Lippold	Leaves	Herb	A paste is made with mustard oil and applied to the affected area
3	Diabetes	Amla	*Phyllanthus emblica* L.	Fruit	Tree	Fermented mixed Juice is taken orally
		Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 3.4.1.6

Name of Respondent: Mr. Rajnath Rai

Age:	40	Sex:	Male	Education:	High School
State:	Bihar	District:	Saran	Occupation:	Farmer
Locality:	Rivalganj	Village:	Bagahi	Phone No:	+91 9631561227

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Arandi	*Ricinus communis* L.	Seed	Shrub	Oil applied externally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.7

Name of Respondent: Mr. Tuntun Kumar Yadav

Age:	56	Sex:	Male	Education:	High School
State:	Bihar	District:	Saran	Occupation:	Farmer
Locality:	Rivalganj	Village:	Bagahi	Phone No:	+91 9534169658

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Hemorrhoids (Piles)	Naagdon	*Euphorbia tithymaloides* L.	Leaves	Shrub	Paste is applied
2	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Leaves paste is taken with water
Informant/plant local information						
1	Source of plant material	Naturally occurring Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 3.4.1.8

Name of Respondent: Mr. Vijay Kishor Chourasia

Age:	53	Sex:	Male	Education:	None
State:	Bihar	District:	Saran	Occupation:	Farmer
Locality:	Rivalganj	Village:	Rivalganj	Phone No:	+91 8083267663

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Haldi	*Curcuma longa* L.	Rhizome	Herb	Powder is used
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves infusion is taken
3	Diabetes	Amla	*Phyllanthus emblica* L.	Fruit	Tree	Fermented mix Juice taken
		Jamun	*Syzygium cumini* (L.) Skeels	Fruit	Tree	
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.1

Name of Respondent: Mr. Sonika Mosmal

Age:	36	Sex:	Male	Education:	None
State:	Jharkhand	District:	Sahibganj	Occupation:	Labourer
Locality:	Sahibganj	Village:	Chanan	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is sipped as a tea
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction
3	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Cooked as vegetable and used
4	Hypertension	Lemon	*Citrus × limon* (L.) Osbeck	Fruit	Tree	Juice pore in water and drink
5	Diabetes	Sadabahar	*Catharanthus roseus* (L.) G.Don	Leaves	Herb	Leaves paste is mixed in water and used orally

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 4.1.1.2

Name of Respondent: Mr. Munna Kumar Paswan

Age:	19	Sex:	Male	Education:	Intermediate
State:	Jharkhand	District:	Sahibganj	Occupation:	Laborer
Locality:	Sahibganj	Village:	Chanan	Phone No:	+91 8271092830

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and take
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Jaundice	Guava	*Psidium guajava* L.	Fruit	Tree	Fresh fruits are eaten
3	Diabetes	Stevia	*Stevia rebaudiana* (Bertoni) Bertoni	Leaves	Herb	Fresh leaves are Chewed
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.3

Name of Respondent: Mr. Harish Chandra Mandal

Age:	36	Sex:	Male	Education:	Intermediate
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Mahajan Patty	Phone No:	+91 7004795575

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma, Cough	Mulethi	*Glycyrrhiza glabra* L.	Leaves	Shrub	Mix and make a decoction
		Peepli	*Piper longum* L.	Fruit	Climber	
		Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	
		Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Joint pain	Harsingar	*Nyctanthes arbor-tristis* L.	Leaves	Tree	Cooked in oil and paste applied
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated, Crude drug market				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.4

Name of Respondent: Mrs. Sarita Kumari Poddar

Age:	53	Sex:	Female	Education:	High School
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Mahajan Patti	Phone No:	+91 6200899939

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Asthma	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Diarrhea & Dysentry	Bael	*Aegle marmelos* (L.) Corrêa	Fruit	Tree	Ripe fruits are eaten
3	Jaundice	Papita	*Carica papaya* L.	Fruit	Tree	Cooked as vegetable and used
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				No
		Do you feel to give training to others?				Yes
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.5

Name of Respondent: Mr. Chandrasekhar Singh

Age:	52	Sex:	Male	Education:	Graduation
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Rampur	Phone No:	+91 8252126490

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used as a tea
2	Headache	Tulsi	*Ocimum tenuiflorum* L.	Whole Plant	Herb	A decoction is used as a tea
3	Fever	Tulsi	*Ocimum tenuiflorum* L.	Whole Plant	Herb	A decoction is used as a tea
4	Stomachache	Lemon	*Citrus × limon* (L.) Osbeck	Fruit	Tree	A decoction of Lemon juice and *Aloe* pulp with black salt is prepared and taken
		Ghritkumari	*Aloe vera* (L.) Burm.f.	Leaves	Herb	
5	Diarrhea & Dysentry	Tea leaf	*Camellia sinensis* (L.) Kuntze	Leaves	Tree	A decoction is used

	Informant/plant local information		
1	Source of plant material	Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring Rare	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 4.1.1.6

Name of Respondent: Mr. Lakshman Yadav

Age:	76	Sex:	Male	Education:	8th
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Sobhanpur Bhatta	Phone No:	+91 7481010105

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Garlic	*Allium sativum* L.	Bulb	Herb	Two or three cloves of garlic are roasted in mustered oil and eaten
2	Diarrhea & Dysentery	Bael	*Aegle marmelos* (L.) Corrêa	Fruit	Tree	Ripe fruits are eaten
3	Diabetes	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.7

Name of Respondent: Mr. Ram Sorain

Age:	25	Sex:	Male	Education:	8th
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Chalghi	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Mix and make a decoction
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Gadapunna	*Boerhavia diffusa* L.	Root	Herb	A decoction is used orally
3	Jaundice	Arhar	*Cajanus cajan* (L.) Huth	Leaves	Shrub	Leaves paste is mixed in water and drink

Informant/plant local information			
1	Source of plant material	Naturally occurring, Domesticated/Cultivated	
2	Availability of the plant material	Abundantly occurring, Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form, Powder form	
5	Guidance coordination & training	Whether training is required	No
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 4.1.1.8

Name of Respondent: Mr. Chamru Paharia

Age:	60	Sex:	Male	Education:	None
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Dhilai	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Tulsi	*Ocimum tenuiflorum* L.	Leaves	Herb	A decoction is used orally
2	Mouth ulcer	Pudina	*Mentha spicata* L.	Leaves	Herb	Leaves paste is dissolved in water and used orally
3	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
4	Boil	Shahtoot	*Morus alba* L.	Leaves	Tree	The paste is applied to the affected part

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 4.1.1.9

Name of Respondent: Mr. Davdas Paharia

Age:	19	Sex:	Male	Education:	8th
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Dhilai	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and use orally
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Hemorrhoids (Piles)	Shahtoot	*Morus alba* L.	Leaves	Tree	Leaves paste applied to the affected part
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 4.1.1.10

Name of Respondent: Mr. Dhanesh Paharia

Age:	26	Sex:	Male	Education:	None
State:	Jharkhand	District:	Sahibganj	Occupation:	Farmer
Locality:	Sahibganj	Village:	Dhapani	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Adrak	*Zingiber officinale* Roscoe	Rhizome	Herb	Make a decoction and use it orally
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	
		Haldi	*Curcuma longa* L.	Rhizome	Herb	
2	Fever	Giloy	*Tinospora cordifolia* (Willd.) Hook.f. & Thomson	Stem	Climber	A decoction is used orally
3	Boil	Madar	*Calotropis procera* (Aiton) W.T.Aiton	Leaves	Shrub	Leaves are dipped in warm sesame oil and wrapped in the affected area
Informant/plant local information						
1	Source of plant material	Naturally occurring, Domesticated/Cultivated				
2	Availability of the plant material	Abundantly occurring, Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

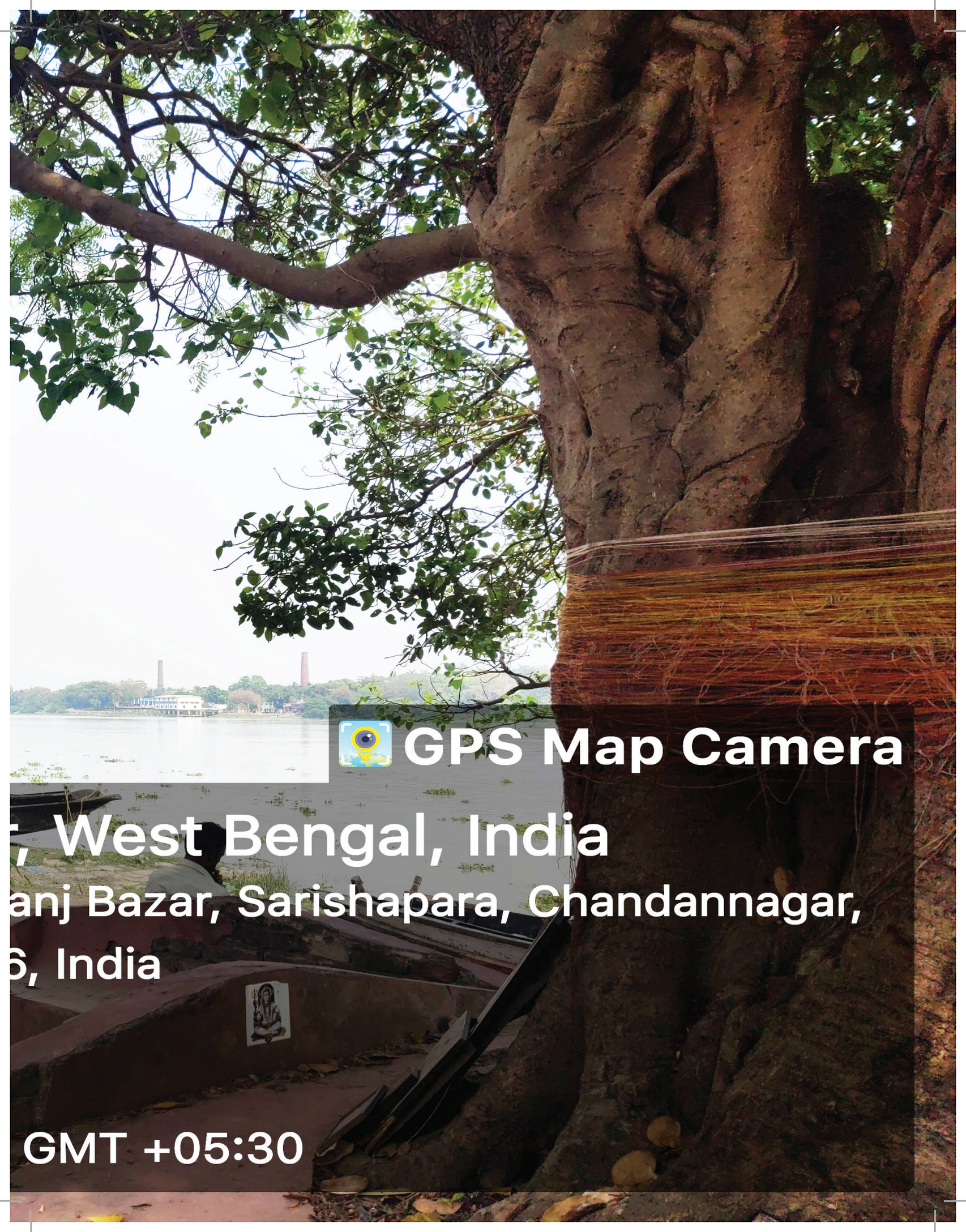
Respondent No.: 5.1.1.1

Name of Respondent: Mrs. Parvati Devi

Age:	53	Sex:	Female	Education:	Primary
State:	West Bengal	District:	Hooglley	Occupation:	Housewife
Locality:	Check Bansariya	Village:	Check Bansariya	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/Joint pain	Hathi Sund	*Thelypteris subpubescens* (Blume) K.Iwats.	Whole plant	Fern	Paste applied to the affected portion
2	Fever	Bandgoon, Bhoongteeta	*Clerodendrum infortunatum* L.	Leaves	Shrub	Leaves lightly warmed and applied over the body
3	Cuts and wound	Bangladeshi Patta	*Mikania micrantha* Kunth	Leaves	Climber	10-15 leaves crushed and paste applied
4	Diabetes	Bangladeshi Patta	*Mikania micrantha* Kunth	Leaves	Climber	Leaf juice taken 2-3 times daily
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Seasonal				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes


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Respondent No.: 5.2.1.1

Name of Respondent: Mrs. Bapi Mistri

Age:	45	Sex:	Female	Education:	8th
State:	West Bengal	District:	Nadiya	Occupation:	Housewife
Locality:	Bhatpura	Village:	Bhatpura	Phone No:	None

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Arthritis/ Joint pain	Hathi Sund	*Thelypteris subpubescens* (Blume) K.Iwats.	Whole plant	Fern	Paste applied to the affected portion
2	Jaundice	Makoy	*Solanum nigrum* L.	Whole plant	Herb	Juice mix in water and taken or used a decoction
3	Cuts and wound	Bangladeshi Patta	*Mikania micrantha* Kunth	Leaves	Climber	10-15 leaves crushed and paste applied
4	Diabetes	Bangladeshi Patta	*Mikania micrantha* Kunth	Leaves	Climber	Leaf juice taken 2-3 times daily
5	Najar (Taboo totem)	Ghas	*Cyanthellium cinerium* (L.) H. Rob.	Whole plant	Herb	Kept in surrounding

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Seasonal	
3	Permission from the Forest department	Not required	
4	Storage of seasonal plants	Dry form	
5	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
6	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 5.3.1.1

Name of Respondent: Mr. Subol Ghosh

Age:	56	Sex:	Male	Education:	5th
State:	West Bengal	District:	Murshidabad	Occupation:	Milkman
Locality:	Dear Forest	Village:	Govindrampur	Phone No:	+91 7076637436

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Arus	*Justicia adhatoda* L.	Leaf	Shrub	Leaf paste with black pepper and given orally
		Black Pepper	*Piper nigrum* L.	Seed	Climber	
2	Fever	Arus	*Justicia adhatoda* L.	Leaf	Shrub	Leaf paste with black pepper and given orally
		Black Pepper	*Piper nigrum* L.	Seed	Climber	
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form, Powder form				
5	Guidance coordination & and training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 5.3.1.2

Name of Respondent: Mr. Bapu Ghosh

Age:	46	Sex:	Male	Education:	5th
State:	West Bengal	District:	Murshidabad	Occupation:	Milkman
Locality:	Dear Forest	Village:	Govindrampur	Phone No:	+91 7076637436

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Arus	*Justicia adhatoda* L.	Leaves	Shrub	Leaf paste with black pepper and given orally
		Black Pepper	*Piper nigrum* L.	Seed	Climber	
2	Fever	Arus	*Justicia adhatoda* L.	Leaves	Shrub	Leaf paste with black pepper and given orally
		Black Pepper	*Piper nigrum* L.	Seed	Climber	
		Bandgoon, Bhoongteeta	*Clerodendrum infortunatum* L.	Leaves	Shrub	Leaves lightly warmed and applied over the body
Informant/plant local information						
1	Source of plant material	Naturally occurring				
2	Availability of the plant material	Abundantly occurring				
3	Permission from the Forest department	Not required				
4	Storage of seasonal plants	Dry form				
5	Guidance coordination & training	Whether training is required				Yes
		Do you feel to give training to others?				No
6	Publication	Do you feel to publish the knowledge?				Yes

Respondent No.: 5.3.1.3

Name of Respondent: Mr. Ashok Kumar Mondal

Age:	52	Sex:	Male	Education:	Matric
State:	West Bengal	District:	Murshidabad	Occupation:	Farmer
Locality:	Farakka	Village:	Farakka	Phone No:	+91 7076637436

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cuts and wound	Van Tulsi	*Croton bonplandianus* Bail.	Leaf	Herb	Mixed and made a paste and applied locally
		Doobghas	*Cynodon dactylon* (L.) Pers.	Whole plant	Herb	

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

Respondent No.: 5.4.1.1

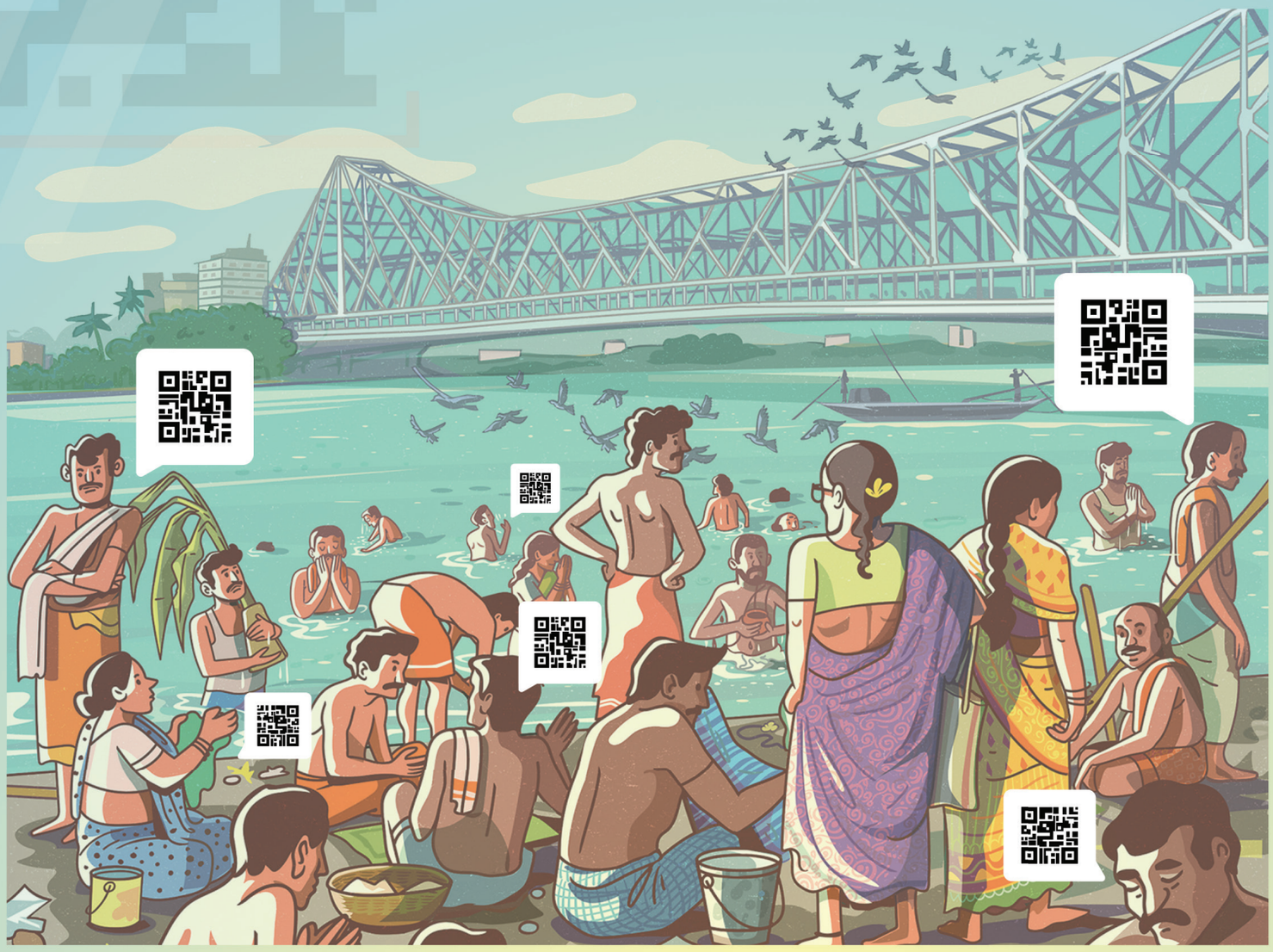
Name of Respondent: Mrs. Mariyam Bibi

Age:	58	Sex:	Female	Education:	Basic
State:	West Bengal	District:	24 Pargana	Occupation:	Farmer
Locality:	Kelarmat	Village:	Kelarmat	Phone No:	+91 9002509611

	Name of the disease	Herbs used in the treatment				Methods of preparation
		Local name	Botanical name	Part	Habit	
1	Cough	Bambaki Bati	*Bacopa monnieri* (L.) Wettst.	Whole plant	Herb	Crushed the plant and given for 3 days
2	Brain tonic	Bambaki Bati	*Bacopa monnieri* (L.) Wettst.	Whole plant	Herb	Crushed the plant and given
3	Lactation	Kya	*Acanthus ilicifolius* L.	Root	Shrub	Paste taken orally with 2-5 Kali Mirch with rice
		Kali Mirch	*Piper nigrum* L.	Seed	Climber	

Informant/plant local information			
1	Source of plant material	Naturally occurring	
2	Availability of the plant material	Abundantly occurring	
3	Permission from the Forest department	Not required	
4	Guidance coordination & training	Whether training is required	Yes
		Do you feel to give training to others?	No
5	Publication	Do you feel to publish the knowledge?	Yes

Video QR Codes for Interactive Discussion and Training with Respondents





"The video gives detailed guidance on how to analyze soil pH using Dharti Ka Doctor (DKD) kit in Alavarpur, Haridwar."

Alawarpur,
Haridwar, UK



"The video elaborated on the detailed training to the villagers about the Dharti Ka Doctor (DKD) at Alawarpur, Haridwar."

Alawarpur,
Haridwar, UK



"The video elaborates on the detailed training to the villagers about the Dharti Ka Doctor (DKD) at Gyansu, Uttarkashi."

Gyansu,
Uttarkashi, UK



"The video elaborates on the detailed training to the villagers about the Dharti Ka Doctor (DKD) at Gyansu, Uttarkashi."

Gyansu,
Uttarkashi, UK



"The Dharti Ka Doctor (DKD), which can assist the locals create jobs, provides them with extensive training."

Gyansu,
Uttarkashi, UK



"Detailed directions on Ayurvedic medication are given in the video. It demonstrates how good they are at getting rid of general weaknesses."

Sangrali,
Uttarkashi, UK



"The video included comprehensive instructions on the Dharti Ka Doctor (DKD) at Sangrali, Uttarkashi."

Sangrali,
Uttarkashi, UK



"In combination with the mobile app, the DKD machine utilizes the fertilizers calculator to generate customized recommendations."

Sangrali,
Uttarkashi, UK



"In addition to a detailed explanation of the Dharti Ka Doctor (DKD) kit, the video includes an examination of the collection of soil, water, and herbs samples."

Sangrali,
Uttarkashi, UK



"The video provides detailed guidance to the villagers to use Dharti Ka Doctor (DKD) for soil analysis at Sangrali, Uttarkashi."

Sangrali,
Uttarkashi, UK



"In the video, Patharchatta and Kilmora are used to treat cysts, digestive problems, cancer, and diabetes, among other conditions."

Sangrali,
Uttarkashi, UK



"In addition to discussing the Dharti Ka Doctor (DKD) equipment, the video examined soil, water, and plant samples that will be subjected to additional analysis."

Alawarpur,
Haridwar, UK



"A thorough description of the Dharti Ka Doctor (DKD) kit along with the collection of soil, water, and plant samples for their further analysis."

Alawarpur,
Haridwar, UK



"The damaging impacts of DDT on crops are demonstrated in this video. It is dangerous to humanity."

Alawarpur,
Haridwar, UK



"The three key medicinal herbs in the video—Gokhru, Giloy, and Neem—have a synergistic effect, reduce uric acid levels, and treat psoriasis, respectively."

Alawarpur,
Haridwar, UK



"The villagers received thorough instruction regarding DDT insecticide, which has been further explained in the video."

Alawarpur,
Haridwar, UK



"The video elaborated on the detailed training to the villagers about the Dharti Ka Doctor (DKD) kit."

Alawarpur,
Haridwar, UK



"The villagers thanked the Patanjali team for the DKD kit and others at Alawarpur, Haridwar."

Alawarpur,
Haridwar, UK



"The villegers received booklets with information on growing mushrooms, beekeeping, and other topics at Alawarpur, Haridwar."

Alawarpur,
Haridwar, UK



"The video provided comprehensive instruction to the villagers regarding the Dharti Ka Doctor (DKD) program at Gyansu, Uttarkashi."

Gyansu,
Uttarkashi, UK



"The welcoming speech addressed to the Patanjali team included a detailed explanation of the objectives of the Namami Gange project."

Gyansu,
Uttarkashi, UK



"Dr. Joshi discussed the importance of a daily life routine. He emphasized how establishing consistent habits can improve overall well-being."

Gyansu,
Uttarkashi, UK



"The video included a study of soil, water, and herb samples around the Ganga River along with the Dharti Ka Doctor (DKD) kit demonstration."

Alawarpur,
Haridwar, UK



"The video included a study of soil, water, and herb samples around the Ganga River along with the Dharti Ka Doctor (DKD) kit demonstration."

Alawarpur,
Haridwar, UK



"Dr. Mishra elaborates on the details to the villagers about agriculture, herb samples, yoga, and Ayurveda."

Tungi, Devprayag,
Tehri, UK



"The video elaborated on the detailed training to the villagers about the Dharti Ka Doctor (DKD)."

Gyansu,
Uttarkashi, UK



"The video illustrates the advantages of using pesticides, organic farming, medicinal plants, and insecticides."

Gyansu,
Uttarkashi, UK



"The scientists discussed their goals for the Namami Gange project in this video."

Purali,
Uttarkashi, UK



"The video explains the benefits of bacteriophages and Ganga water that highly important for water purity."

Purali,
Uttarkashi, UK



"The scientists discussed the Namami Gange project's and their objectives in this video at Purali, Uttarkashi."

Purali,
Uttarkashi, UK



"The video included the Dharti Ka Doctor (DKD) utilization that has been thoroughly explained to the villagers."

Raithal,
Uttarkashi, UK



"The DKD device easily integrates with a smartphone app, allowing farmers to view test results right on their phones."

Raithal,
Uttarkashi, UK



"In this video, Dr. Sharma discusses the drawbacks of the chemicals used in the crop."

Raithal,
Uttarkashi, UK



"In this video, the medicinal properties of Giloy and Pipali, have been explored in depth."

Raithal,
Uttarkashi, UK



"Top of FormThe villagers of Sangrali, Uttarkashi inquired about the specifics of the DKD mobile application and its features."

Sangrali,
Uttarkashi, UK



"The scientists discussed the Namami Gange project's objectives and the medicinal properties of plants in this video."

Sangrali,
Uttarkashi, UK



"The scientists deliberated on the Patharchatta medicinal plant in this video at Sangrali, Uttarkashi."

Sangrali,
Uttarkashi, UK



"In this video, the scientists talked about the therapeutic herb Giloy and its importance."

Sangrali,
Uttarkashi, UK



"The scientists conversed about the medicinal properties of Gokhru and others in this video."

Sangrali,
Uttarkashi, UK



"In this video, the discussion revolves around Vasa and other ethno-medicinal plants."

Tungi, Devprayag,
Tehri, UK



"Dr. Mishra elaborates detail to the villagers about health and organic farming in Tungi, Devprayag."

Tungi, Devprayag,
Tehri, UK



"The video elaborated on the detailed training to the villagers about the Dharti Ka Doctor (DKD) at Tungi, Devprayag."

Tungi, Devprayag,
Tehri, UK



"The video provided an in-depth explanation to the villagers regarding Dharti Ka Doctor (DKD) kit at Tungi, Devprayag."

Tungi, Devprayag,
Tehri, UK



"Dr. Sharma demonstrated an experiment on how to analyze soil samples and determine their pH levels using DKD."

Tungi, Devprayag,
Tehri, UK



"Dr. Sharma elaborates the detail training to the villagers about the DKD mobile application and its features."

Tungi, Devprayag,
Tehri, UK



"The villagers receive thorough instruction from Dr. Joshi on how to evaluate different samples of soil, water, and herbs."

Tungi, Devprayag,
Tehri, UK



"Dr. Mishra elaborates detail to the villagers about their daily life routine and health."

Tungi, Devprayag,
Tehri, UK



"The villagers are thanked by scientists for their organic farming practices, among other things."

Tungi, Devprayag,
Tehri, UK



"In this video, the discussion revolves around medicinal plants and their properties at Tungi, Devprayag."

Tungi, Devprayag,
Tehri, UK



"The video describes Neem and other medicinal herbs, highlighting their therapeutic properties."

Alawarpur,
Haridwar, UK



"Dr. Joshi elaborates detail to the villagers about the medicinal plants at Alawarpur, Haridwar."

Alawarpur,
Haridwar, UK



"The native person elaborates on his experience of Euphorbia thymifolia (dudhi grass) latex is used to treat warts."

Alawarpur,
Haridwar, UK



"The goals of the Namami Gange project and the medicinal qualities of the plants are discussed in this video."

Gyansu
Uttarkashi, UK



"The video provides detailed guidance on analyzing soil parameters using the Dharti Ka Doctor (DKD) kit."

Raithal
Uttarkashi, UK



"Dr. Joshi elaborates on the detailed training to the villagers about the DKD kit and organic farming."

Raithal
Uttarkashi, UK



"The video explains the uses and applications of the Dharti Ka Doctor (DKD) kit at Raithal, Uttarkashi."

Raithal
Uttarkashi, UK



"The video provides comprehensive instructions on how to analyze soil pH using the Dharti Ka Doctor (DKD) kit."

Raithal
Uttarkashi, UK



"The DKD kit measures numerous parameters that determine soil fertility, giving instant insights into the nutrient status of the soil."

Raithal
Uttarkashi, UK



"Dr. Joshi gives the people detailed instructions on how to assess various soil, water, and herb samples."

Sangrali,
Uttarkashi, UK



"The video shows a deep discussion between the farmers and the team of Patanjali related to organic farming and its importance."

Ramel Nagar,
Kanpur, UP



"In the video, Mr. Chhote Lal Nishad elaborates on the benefits of certain herbs, such as Tulsi and Giloy, for treating a variety of ailments."

Ramel Nagar,
Kanpur, UP



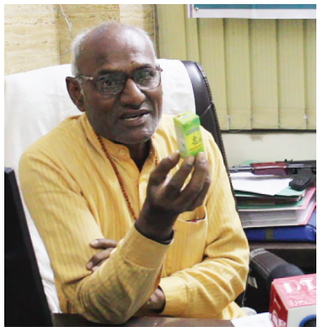
"The video featured Mr. Pramod Mishra, a Prakriti Chikitsak (Natural practitioner), discussing his experiences and profession with Patanjali team."

Bithoor nagar panchayat,
Kanpur, UP



"The video included the Pradhan of Ramel Nagar, Kanpur, giving a welcome address."

Ramel Nagar,
Kanpur, UP



"The video showed Mr. Rameshwar sharing his work journey, and the benefits of Tulsi, in which he has done a lot of work."

Jajmau,
Uttar Pradesh



"The video showed Mr. Rameshwar describing the benefits of the Tulsi plant during COVID-19, which was very effective against this pandemic."

Jajmau,
Uttar Pradesh



"The video elaborates on the benefits of fertilizers, and how applying them increases crop growth by 15-20%."

Jajmau,
Uttar Pradesh



"Mr. Rameshwar Kushwaha of Jajmau village explained the advantages of using Vimal Tulsi for the management of hypertension and diabetes."

Jajmau,
Uttar Pradesh



"In this video, Mr. Rameshwar Kushwaha from Jajmau village elaborates the medicinal use of Vedikamrit drop."

Jajmau,
Uttar Pradesh



"In this video, Mr. Rameshwar Kushwaha from Jajmau village explains the medicinal use, ingredients, and number of drops of Vedikamrit to fight against corona."

Jajmau,
Uttar Pradesh



"In the video, Mr. Samar Singh Bhadauriya from Sawaijpur, Kanpur describes the several types of aromatic plants and their uses."

Sawaijpur,
Kanpur, UP



"The video conveyed the inhabitants' worry and melancholy about the filth in the Ganga River, which causes several issues for farmers and other residents."

Jajmau,
Uttar Pradesh



"In the video, a training program at Jajmau emphasized the issues raised by the Ganga River's impurity and provided solutions."

Jajmau,
Uttar Pradesh



"The video shows the introduction lecture about the importance and uses of yoga at the Rama Institute of Higher Education Bijnor."

Bijnor,
Uttar Pradesh



"The video included a lecture on the value and application of yoga in daily life given at Rama Institute of Higher Education Bijnor."

Bijnor,
Uttar Pradesh



"This video shows the importance of Yoga and Ayurveda in our lives. Dr. Joshi and Dr. Bhati are the main instructors that explain Yoga and Ayurveda."

Jahanabad, Bijnor
Uttar Pradesh



"The importance of yoga in our daily lives is highlighted in the video. Yoga enhances flexibility, strength, and balance."

Jahanabad, Bijnor
Uttar Pradesh



"In the video, it is highlighted how important Ayurveda and therapeutic plants are to daily life."

Jahanabad, Bijnor
Uttar Pradesh



"The video shows detailed instructions on the Dharti Ka Doctor (DKD) kit and software. and tells about soil pH analysis techniques."

Jahanabad, Bijnor
Uttar Pradesh



"The video shows the welcoming lecture and the benefits of yoga and Ayurveda at Bali Patti Jahanabad, Bijnor."

Jahanabad, Bijnor
Uttar Pradesh



"The video presented a lecture given by Dr. Anupam Shrivastava on the goal of the Namami Gange project at Bali Patti Jahanabad, Bijnor."

Jahanabad, Bijnor
Uttar Pradesh



"The video showed Dr. Anupam Shrivastava discussing the Projects of PRI and PORI at Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"The importance of yoga in our daily lives is explained in the video. Yoga reduces stress, anxiety, and sadness while enhancing mental clarity and relaxation."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video provided detailed guidance on analyzing soil pH using the Dharti Ka Doctor (DKD) method. The detailed process and sampling methods are explained."

Bali Patti Ranigaav,
Farrukhabad, UP



"The steps for utilizing the Dharti ka Doctor (DKD) software are thoroughly explained in the video. It offers detailed instructions on software use and its features and capabilities."

Bali Patti Ranigaav,
Farrukhabad, UP



"Village Pradhan gives a lecture about why and how to keep the Ganga clean. The benefits of utilizing organic farming are highlighted along with discussions on related subjects."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video showcases the benefits of yoga, Ayurvedic medicines, and the crucial advantages of cleaning the sacred Ganga."

Bali Patti Ranigaav,
Farrukhabad, UP



"In the video, the advantages and applications of Ayurvedic medications are illustrated. It is also evident that most individuals have favored Ayurvedic therapy."

Bali Patti Ranigaav,
Farrukhabad, UP



"In this video, Dr. Anupam Srivastava elaborates on the objective of the Namami Gange Project to the villagers."

Bali Patti Ranigaav,
Farrukhabad, UP



"In the video, the benefits of yoga for everyday life are illustrated. For a healthier lifestyle, practice yoga poses like Surya Namaskera for thirty minutes each day."

Bali Patti Ranigaav,
Farrukhabad, UP



"Throughout the video, Ayurveda, Yoga, and medicinal plants are all explored in detail. It looks at several yoga styles, highlighting the benefits of these workouts."

Bali Patti Ranigaav,
Farrukhabad, UP



"In this video, Dr. Joshi welcomes one of the PRI scientists to explain the benefits and use of the Dharti ka Doctor (DKD) Kit."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows a detailed explanation of the Dharti ka Doctor (DKD) Kit at Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows the detailed training and experiment of the Dharti ka Doctor (DKD) Kit at Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows one of the locals experimenting along with a PRI Scientist on the Dharti Ka Doctor (DKD) Kit."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video depicts a QNA session about the daily routine between the local and a PRI scientist."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows, QNA session between the scientist of PRI and the localite about the local medicinal plant for remedy."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows the Pradhan of the village giving a speech on the present scenario at Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"A welcome speech and their goals are discussed with the villagers at Bali Patti Ranigaav, Farrukhabad in the video."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video captures the speaker discussing the goal and purpose of the training in Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video explains the benefits, applications, and minerals that are included in Ganga water at Bali Patti Ranigaav, Farrukhabad."

Bali Patti Ranigaav,
Farrukhabad, UP



"The benefits and variations of yoga are described in the video. It also examines several Ayurvedic concepts, including its natural healing methods and holistic approaches."

Bali Patti Ranigaav,
Farrukhabad, UP



"This video explains how the Ganga has been contaminated over time and how we should maintain its cleanliness."

Bali Patti Ranigaav,
Farrukhabad, UP



"In the video, the villagers are given a comprehensive explanation of the Dharti ka Doctor (DKD) Kit and how to analyze the pH of soil."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows the lecture of the two guests on the training by Patanjali Research Foundation on Namami Gange."

Bali Patti Ranigaav,
Farrukhabad, UP



"The residents in the video are grateful for the Dharti ka Doctor (DKD) Kit and its beneficial benefits on the soil."

Bali Patti Ranigaav,
Farrukhabad, UP



"The video shows the welcoming speech to the Patanjali scientists by the locals at Bithoor Kanpur."

Bithoor Kanpur,
Uttar Pradesh



"This video provides a brief explanation of the purpose of the survey for the Patanjali scientists."

Bithoor Kanpur,
Uttar Pradesh



"The video provides a detailed explanation of the Namami Gange project's goals, including soil training and the collecting of medicinal plants."

Bithoor Kanpur,
Uttar Pradesh



"The numerous benefits of yoga for both physical and mental health are covered in depth in this video. Strength, flexibility, and relaxation are all enhanced by yoga."

Bithoor Kanpur,
Uttar Pradesh



"In the video, Dr. Rajesh Mishra talks about Ayurveda and medicinal plants, such as Giloy and other herbs."

Bithoor Kanpur,
Uttar Pradesh



"The video highlights the significance of the DKD Machine, which assesses key soil characteristics."

Bithoor Kanpur,
Uttar Pradesh



"The video shows the explanation and training of the Dharti ka Doctor (DKD) software at Bithoor Kanpur."

Bithoor Kanpur,
Uttar Pradesh



"The video shows the Pradhan of the village motivating the villagers to do yoga and stay fit at Bithoor Kanpur."

Bithoor Kanpur,
Uttar Pradesh



"The Patanjali scientist is seen in the video awarding certificates of gratitude to the people of Bithoor Kanpur."

Bithoor Kanpur,
Uttar Pradesh



"The video shows the team of PRI telling the objective and aim for Namami Gange Project at Bithoor Kanpur."

Bithoor Kanpur,
Uttar Pradesh



"The video shows the inauguration of the PRI team's books, and Dr. Anupam Shrivastava describes the purpose of the survey."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"Dr. Bhati elaborates on the habits that we should do daily to stay healthy, as well as the importance of yoga."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"Farmers may access test results directly on their phones thanks to the Dharti Ka Doctor Kit's easy integration with smartphone apps, as demonstrated in the video."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"The movie depicts the training of the DKD Machine, which analyses the essential soil parameters and provides a detailed study."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"The significance of Ganga and the advantages of many medicinal plants are discussed in the video."

Bithoor Kanpur,
Uttar Pradesh



"The uses of many medicinal plants, including the flower of Akarkara, for dental issues, are extensively covered in the video."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"The video shows the certificates being distributed to the locals for appreciation and participation at Ganga Ghat Anupshahar, Bulandshahar."

Ganga Ghat Anupshahar,
Bulandshahar, UP



"The training program's purpose is explained in the video. The project's scope includes the area between Gomukh and Gangasagar."

Jajmau,
Uttar Pradesh



"The Namami Gange Project is the organization behind this training, as stated in the video. The area covered by this project will extend from Gomukh to Gangasagar."

Kachhla,
Budaun, UP



"The advantages of yoga in daily life are explained in the video. Frequent yoga practice increases muscular strength, flexibility, and general physical stability."

Kachhla,
Budaun, UP



"Dr. Rajesh Mishra, a scientist from Patanjali, explains the benefits and requirements of Ayurveda in this video."

Kachhla,
Budaun, UP



"The video describes the purpose of the Namami Gange Project, the rationale behind this study, and the scientific process of soil sampling for DKD."

Ramel Nagar,
Kanpur, UP



"The benefits of yoga are explained in the video, as Swami Ji tells that one should drink water after waking up in the morning."

Ramel Nagar,
Kanpur, UP



"Questions and answers have been shown in the video, and when to drink water has been discussed at Ramel Nagar, Kanpur."

Ramel Nagar,
Kanpur, UP



"The advantages of Ayurveda and how helpful it is for everyone are discussed in this video."

Ramel Nagar,
Kanpur, UP



"Patanjali Scientist Dr. Rajesh Mishra explains several Ayurvedic applications in this video."

Ramel Nagar,
Kanpur, UP



"The video shows the explanation of the soil testing kit which is called the Dharti ka Doctor, made by Patanjali."

Ramel Nagar,
Kanpur, UP



"The video explains the scientific method of soil sampling for the use of the DKD kit at Ramel Nagar, Kanpur."

Ramel Nagar,
Kanpur, UP



"This video demonstrates how to use the DKD Kit to assess the PH value of soil."

Ramel Nagar,
Kanpur, UP



"A thorough explanation of soil samples using DKD kit is given in the video. The test results examined immediately on the smartphone on your mobile phone."

Ramel Nagar,
Kanpur, UP



"The video demonstrates how the locals manage blood clotting and bleeding by using indigenous medicinal herbs like Khair."

Ramel Nagar,
Kanpur, UP



"The video provides specifics on preparing a decoction of *Solanum virginianum* and jamun peel to cure fever."

Ojhalapul,
Mirzapur, UP



"The video elaborated on the detailed training and awareness campaign initiated by the ministry of jal shakti to the villagers about the dharti ka doctor (DKD), medicinal plants and yoga."

Narottampur,
Varanasi, UP



"The video provided thorough instructions on how to use the Dharti Ka Doctor (DKD) in soil pH analysis. Begin by delicately transferring a 2g soil sample into the test tube followed by 5 ml of distilled water, after full process determine the pH."

Chhajjupur,
Raebareli, UP



"The video elucidated the in-depth training sessions conducted for villagers regarding the Dharti Ka Doctor (DKD). The DKD kit evaluates the soil's carbon, phosphorus, and nitrogen concentrations."

Chhajjupur,
Raebareli, UP



"The video extensively covered the training for villagers regarding the Dharti Ka Doctor (DKD), emphasizing that mixing the filtrate with 2-3 drops of pH reagent will result in a color change."

Chhajjupur,
Raebareli, UP



"The video explained training to the locals about the Dharti Ka Doctor (DKD) kit. It measures the amounts of nitrogen, phosphorus, and carbon in the soil."

Chhajjupur,
Raebareli, UP



"The video provided thorough direction on using the Dharti Ka Doctor (DKD) and conducting soil sample analysis."

Chhajjupur,
Raebareli, UP



"The video provided in-depth guidance to villagers regarding the Dharti Ka Doctor (DKD). It explained that when the sample is mixed with 2-3 drops of pH reagent, a change in colour occurs, indicating the soil's pH level."

Chhajjupur,
Raebareli, UP



"The video shows the process of the Dharti Ka Doctor (DKD) kit, recommending the mixing of organic elements A and B to yield the desired outcome."

Chhajjupur,
Raebareli, UP



"The video provides detailed guidance on operating the Dharti Ka Doctor (DKD) software."

Chhajjupur,
Raebareli, UP



"The video offers comprehensive instructions for utilizing the Dharti Ka Doctor (DKD) software, covering details such as name, mobile number, and khasra number."

Chhajjupur,
Raebareli, UP



"The video offers guidance for safe chemical handling practices as well as comprehensive instructions for use the Dharti Ka Doctor (DKD) app. It covers the app interface, finding out about agricultural methods, and making sure pesticides are applied safely and correctly in farming."

Chhajjupur,
Raebareli, UP



"The video explains the process of the Dharti Ka Doctor (DKD) kit and conducting soil sample analysis. Carbon, phosphorus, and nitrogen concentrations in the soil are measured."

Chhajjupur,
Raebareli, UP



"The video explores the medicinal properties of Solanum and other herbs traditionally used for treating fever."

Ojhalapul,
Mirzapur, UP



"The video shows the detailed training and explanation to the villagers about the Dharti Ka Doctor (DKD) kit."

Ojhalapul,
Mirzapur, UP



"The video explains the medicinal uses of Lasoda (*Cordia myxa*), *Solanum virginianum*, Triphla (Amla, Harad, Baheda), and so on."

Vindhyanchal,
Mirjapur, UP



"A team leading a hawan program with the villagers is shown in the video. The hawan ceremony, which includes group involvement, fire rituals, and customary chants, is probably featured in the video."

Narottampur,
Varanasi, UP



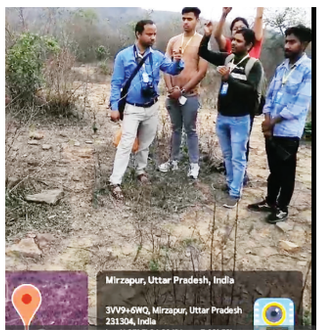
"The video likely features the hawan ceremony, showcasing communal participation, fire rituals, and traditional chants."

Narottampur,
Varanasi, UP



"The video explains the benefits of hawan, yoga, Dharti Ka Doctor, and the motive of NMCG project along with Patanjali Research Foundation."

Narottampur,
Varanasi, UP



"The video shows the length of the plant *Boerhavia diffusa*. According to the scientist of Patanjali Yogpeeth, the length (15ft long) was never mentioned in any book site etc."

Mirzapur,
Uttar Pradesh



"The video outlines the advantages of *Boerhavia diffusa*, detailing its impressive length of 15ft long and its habitat within the Mirzapur forest in Uttar Pradesh."

Chhajjupur,
Raebareli, UP



"The video shows some medicinal herbs and their advantages by the villagers."

Dalmau,
Raebareli, UP



"Mr. Arjun Kumar Yadav elaborates the ethnomedicinal importance of native plants against diseases."

Dalmau,
Raebareli, UP



"The video shows a villager explaining the advantages of the herb Dillenia indica, commonly known as Bhavya (locally)."

Dalmau,
Raebareli, UP



"The video shows a villager describing the medicinal use of Gobhi patta (*Launaea procumbens*) for scorpion stings."

Dalmau,
Raebareli, UP



"The video depicts a villager discussing the usage of *Tridax procumbens* (ghamra) and how to apply it."

Dalmau,
Raebareli, UP



"In the video, a villagers describes how *Rumex dentatus*, also known as banpalak, is used medicinally to cure arthritic conditions and other ailments."

Kateri
Raebareli, UP



"The video shows the villager sharing his knowledge of medicinal plants such as gilloy, gudhal, and doob, etc, as well as how to utilize these plants to cure a variety of diseases."

Akodhi
Mirzapur, UP



"The video shows the villager exchanging his contact information and other details for future interactions."

Akodhi
Mirzapur, UP



"The advantages of using the plant to treat rickets are discussed by Mr. Lal Baba in this video."

Akodhi
Mirzapur, UP



"The video shows that the villager tells about the cure of sinus without any medicine and simply using a fruit Amrood (Guava)."

Akodhi
Mirzapur, UP



"In the video, a villager explains the medicinal uses of many plants, such as Harsingar (for malaria, pain, and gout), Vaijayanti, Chandan, and other herbs."

Akodhi
Mirzapur, UP



"The video tells the details about the medicinal plant which is used to treat eczema."

Akodhi
Mirzapur, UP



"The benefits of Shankhpushpi (*Convolvulus prostrates*) for brain-related and other issues are explained in the video."

Akodhi
Mirzapur, UP



"The video depicts a QNA session with the villager regarding traditional cures for any diseases."

Ramgaon,
Varanasi, UP



"The video explains the medicinal uses of punarnava (*Boerhavia diffusa*) and the process to make it."

Bhawari,
Prayagraj, UP



"The video illustrates the diverse medicinal applications of *Ranunculus* (chaudhi pati dhaniya) and also the process to take it."

Kateri,
Raebareli, UP



"The video depicts the medical usage of punarnava (*Boerhavia diffusa*) for liver disorders."

Narishpurnath,
Ballia, UP



"The video describes the medicinal plant that is used to treat haemorrhoids."

Rampur,
Prayagraj, UP



"The villager highlights the medicinal benefits of many herbs such as doob, latjeera, tulsi, hari tulsi (rama tulsi), gilloy, parijat, etc. in the video."

Aanandpur,
Mirzapur, UP



"The video provides insights into a medicinal plant renowned for its efficacy in treating haemorrhoids."

Dalmau,
Raebareli, UP



"The video features a villager sharing his knowledge of a variety of local medicinal plants, providing essential knowledge into traditional medicine."

Hariharpur,
Varanasi, UP



"The video demonstrates that the herb is utilized medicinally to address ailments such as eye disorders, snake bites, and toothaches."

Dalmau,
Raebareli, UP



"The ethnomedical significance of shati herbs against jaundice and liver problems."

Naini,
Prayagraj, UP



"The video shows medicinal plant collection of the team with the help of localites."

Mirzapur,
Uttar Pradesh



"The video shows the discussion of a medicinal herb between the team and the localite."

Mirzapur,
Uttar Pradesh



"The Yoga experts lead the Yoga to the natives of Sahibganj. It potentially showcases a range of poses and expertly taught techniques."

Sahibganj,
Jharkhand



"In the video, the people describe how to utilize herbs to treat skin conditions."

Dalmau,
Raebareli, UP



"The video highlights the medicinal use of the madar plant (*Calotropis gigantea*) by two localites."

Dalmau,
Raebareli, UP



"The woman in the video describes how the herb can be used medicinally to cure a variety of illnesses."

Dalmau,
Raebareli, UP



"*Achyranthes aspera*, often known as latjeera, is a medicinal herb that is used to treat flatulence and other ailments."

Dalmau,
Raebareli, UP



"The video elaborated on the detailed training of the villagers on the medicinal plants such as tulsi (*Ocimum tenuiflorum*), neem (*Azadirachta indica*), kachnar (*Bauhinia variegate*), sheesham (*Dalbergia sissoo*), and their uses."

Chhajjupur,
Raebareli, UP



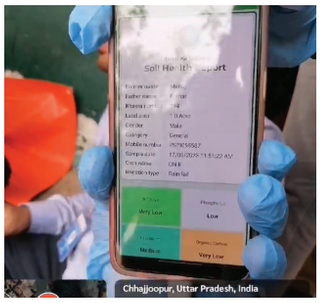
"The video shows the team of patanjali chanting "Gayatri Mantra" and practising "Yoga" with the villagers."

Chhajjupur,
Raebareli, UP



"It is shown in the video that the scientists of Patanjali are explaining in a very beautiful way, through the snake ladder, that it is our responsibility to keep the pure water of the Ganga clean."

Chhajjupur,
Raebareli, UP



"The video provides detailed instructions for the Dharti Ka Doctor (DKD) software, to the farmers and analyzed various samples from Ganga soil, water, and herbs."

Chhajjupur,
Raebareli, UP



"The video shows the thankful speech towards the training of DKD provided by the scientist of patanjali."

Narottampur,
Varanasi, UP



"In the video, scientists discuss their objectives for the NMCG and DKD projects and go over the samples of soil, water, and herbs they examined from the Ganga."

Narottampur,
Varanasi, UP



"The video explains the detail training of the Dharti Ka Doctor (DKD) Kit. It measures how much carbon, phosphate, and nitrogen are in the soil."

Narottampur,
Varanasi, UP



"The video shows detail explanations about goal of Namami Gange Programme. The team along with other made pledge to protect and clean ganga river."

Narottampur,
Varanasi, UP



"The video provided in-depth guidance to villagers regarding the Dharti Ka Doctor (DKD). It quantifies the levels of nitrogen, phosphorus, and carbon present in the soil."

Ojhalapul,
Mirzapur, UP



"The video showed the yoga session done by the localites with the scientist team. Overall, the video demonstrated how yoga may be incorporated into daily life under the supervision of knowledgeable facilitators."

Narottampur,
Varanasi, UP



"The video shows detail explanations and use of the Dharti Ka Doctor (DKD) Kit. It measures how much carbon, phosphate, and nitrogen are in the soil."

Narottampur,
Varanasi, UP



"The video shows the team of patanjali practising "Yoga" with the villagers."

Narottampur,
Varanasi, UP



"The video features the Patanjali team practicing yoga in Prayagraj and illustrates the collaboration between Patanjali experts and locals to integrate yoga positively into daily routines."

Prayagraj,
Uttar Pradesh



"The video shows the team of patanjali practising surya namashkar with the localites."

Prayagraj,
Uttar Pradesh



"The video shows the team of patanjali practising yoga with the localites for peace of mind and for good health."

Prayagraj,
Uttar Pradesh



"In this video, a lady talks about her cultivations of vegetables such as cucumbers, wheat, snake and bitter gourd, etc."

Barh, Patna,
Bihar



"In the video, the damaging effects of DDT and other pesticides on betel leaf plantations are highlighted."



"The video goes into great depth on the regular practice of yoga and its health advantages in Patna, Bihar."

Patna,
Bihar



"The discussion topic is medicinal plants, and the video delved into further detail regarding the benefits of yoga for health and as a daily habit."

Patna,
Bihar



"Locals are seen out fishing in the video. It draws attention to several issues, including the value and expertise of fishery and conventional fishing methods."

Patna,
Bihar



"In this video, from a public park in Patna, Bihar, Mr. Gupta is shown taking a patient's blood pressure and diabetes."

Patna,
Bihar



"The topic of discussion in this video is a delicious recipe for banana inflorescence."

Patna,
Bihar



"The video describes how to get samples of water, herbs, and soil taken from the study sites."

Barh, Patna,
Bihar



"With consistent yoga practice and Ayurvedic medication, Mr. Shailesh Kumar was able to effectively control his long-term psoriasis and eventually make a full recovery."

Patna,
Bihar



"The video has extensive information on the cultivation of button mushrooms, their nutritional worth, and their uses."

Saran,
Rivalganj, Bihar



"The video elaborates on the mushroom cultivations at Saran, Rivalganj."

Saran,
Rivalganj, Bihar



"In this video, the group thanks Mr. Ajay Kumar Yadav for providing work for others."

Saran,
Rivalganj, Bihar



"The video elaborated on the journey details of Mr. Ajay Kumar Yadav, a successful young man in Saran. Rivalganj."

Saran,
Rivalganj, Bihar



"The local from Munger, Bahachauki is talking about Nirgundi a medical plant that is used to relieve stomachaches."

Munger,
Bahachauki, Bihar



"In this video, Mr. Ambika Prasad Yadav from Munger, Bahachauki discusses the uses of Chichira against scorpion bites."

Munger,
Bahachauki, Bihar



"In this video, Mr. Ambika Prasad Yadav from Munger, Bahachauki discusses the uses of Van Tulsi to treat skin inflammations or diseases."

Munger,
Bahachauki, Bihar



"Mr. Ambika Prasad Yadav from Munger, Bahachauki talks about the benefits of using Ganga Tulsi as a pesticide and for feeling cool."

Munger,
Bahachauki, Bihar



"Mr. Chandrasekhar Singh from Sahibganj talking about his farming. He grows a variety of crops and medicinal plants."

Munger,
Bahachauki, Bihar



"Mr. Lakshman Yadav from Sahibganj talking about his farming. He grows a variety of crops and medicinal plants."

Sahibganj,
Jharkhand



"Mr. Ram Prakash Saran from Munger discusses the health advantages of bel fruit, which is used to treat constipation."

Munger,
Bahachauki, Bihar



"Mr. Rajiv Ranjan Kumar from Barh, Patna is talking about his farming. He grows a variety of crops and medicinal plants."

Barh, Patna,
Bihar



"Mr. Ram Prakash Saran from Munger, Bahachauki discusses the health advantages of bel leaves and other herbs."

Munger,
Bahachauki, Bihar



"Mr. Ram Prakash Saran from Munger, Bahachauki discusses the health advantages of bel peel which is very useful in stomach disorders."

Munger,
Bahachauki, Bihar



"Mr. Sujeet Kumar Singh from Munger, Bahachauki discussed the uses of Aak plant against vomiting and other diseases."

Munger,
Bahachauki, Bihar



"Mr. Vijay Kishor Chourasia from Saran, Rivelganj discussed about maize and other crop cultivation."

Saran,
Rivelganj, Patna, Bihar



"Mr. Wishawar Mahto from Barh, Patna is making a boat And he talks about his day-to-day activities."

Barh, Patna,
Bihar



"In this video, Dr. Uday Bhan discusses the detrimental effects of DDT on crops in Patna."

Patna,
Bihar



"Locals from Patna appreciated the Patanjali team, and the team talked about normal daily living."

Patna,
Bihar



"The video elaborated on the detailed training to the villagers about the Dharti Ka Doctor (DKD) in Patna."

Patna,
Bihar



"The people received thorough instruction regarding the negative effects of pesticides."

Patna,
Bihar



"The training session is held in a school, and the purpose of keeping our ganga clean is discussed in this video."

Sonpur,
Saran, Bihar



"Mr. Kameshwar Rai from Gandhipul, Patna discusses his agricultural practices."

Gandhipul,
Patna, Bihar



"In the video, Dr. Uday Bhan discusses the benefits of Giloy. He likely covers various aspects of this plant."

Patna,
Bihar



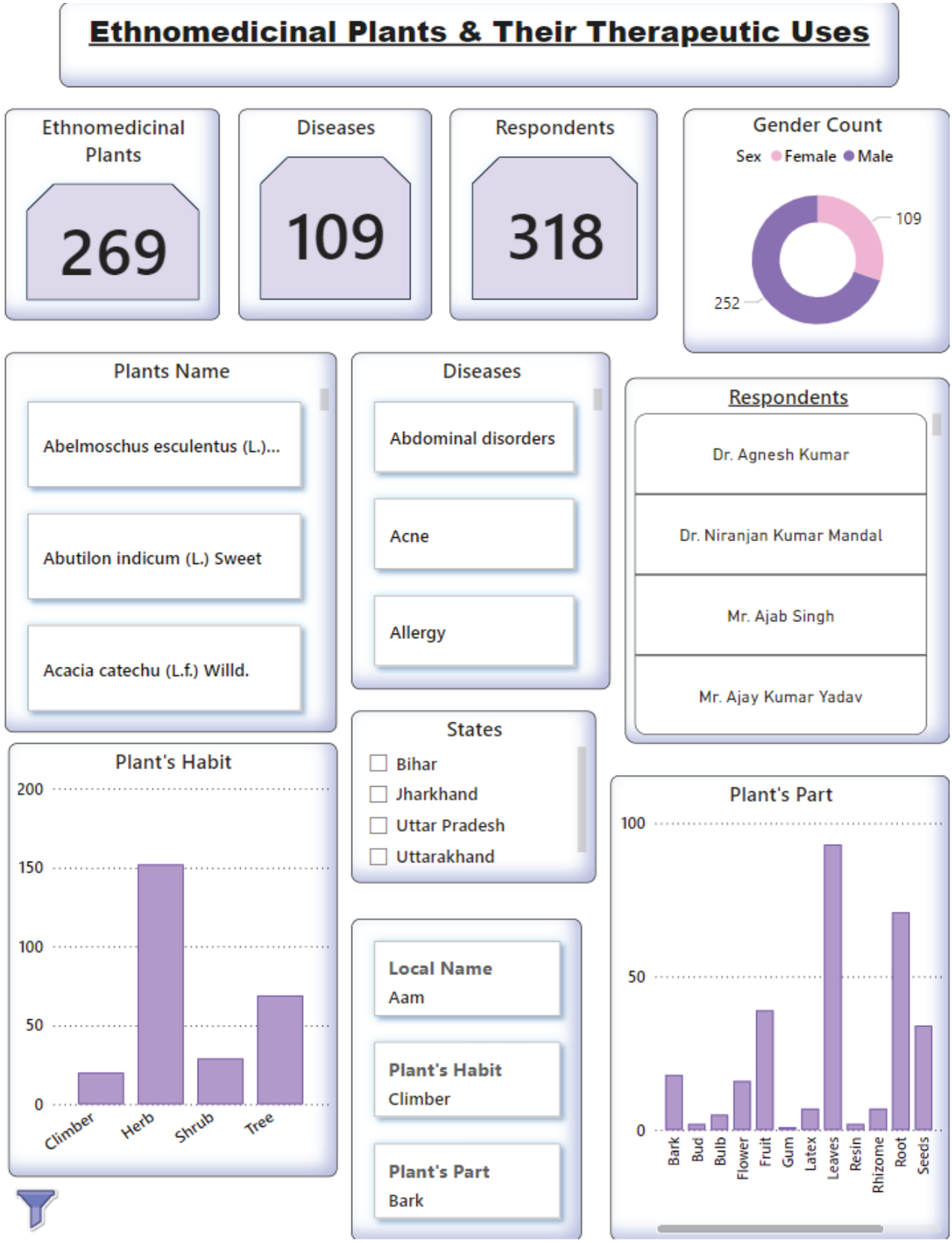
"The Yoga experts lead the Yoga to the natives of Sahibganj which includes a range of yoga postures, breathing exercises, and meditation techniques."

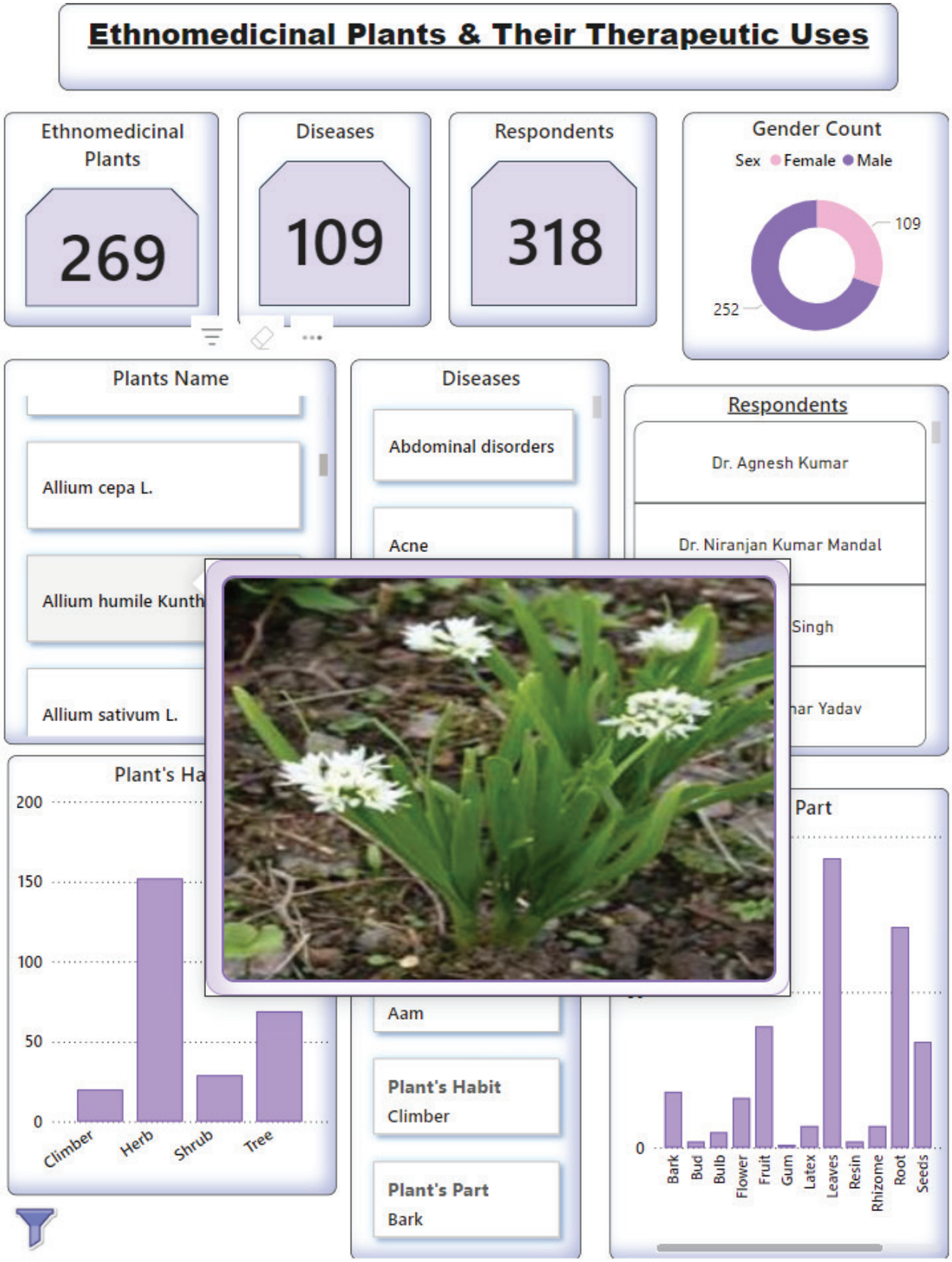
Sahibganj,
Jharkhand

Dynamic Dashboard Data Insights

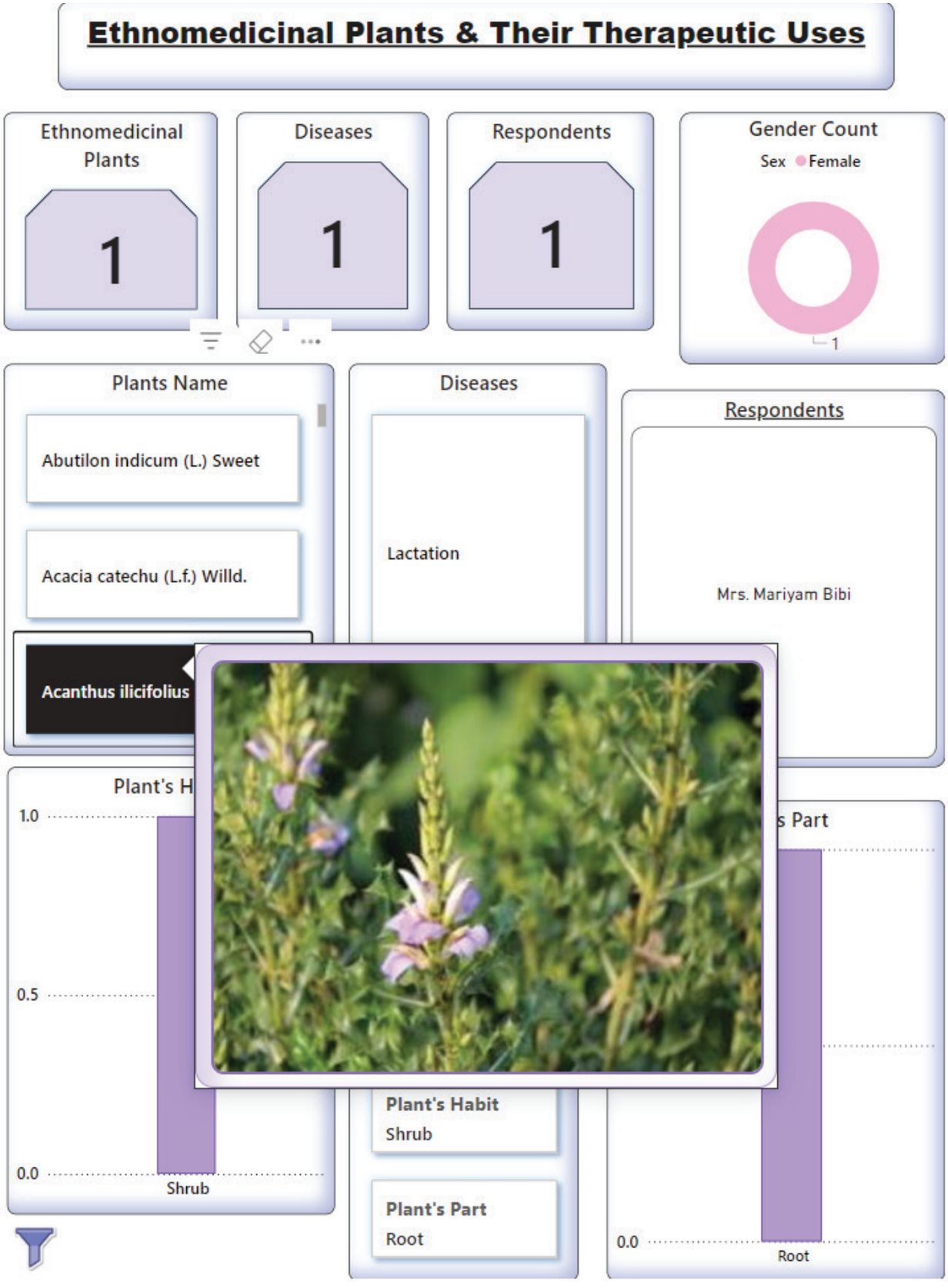
Ethnomedicinal Plants & Their Therapeutic Uses

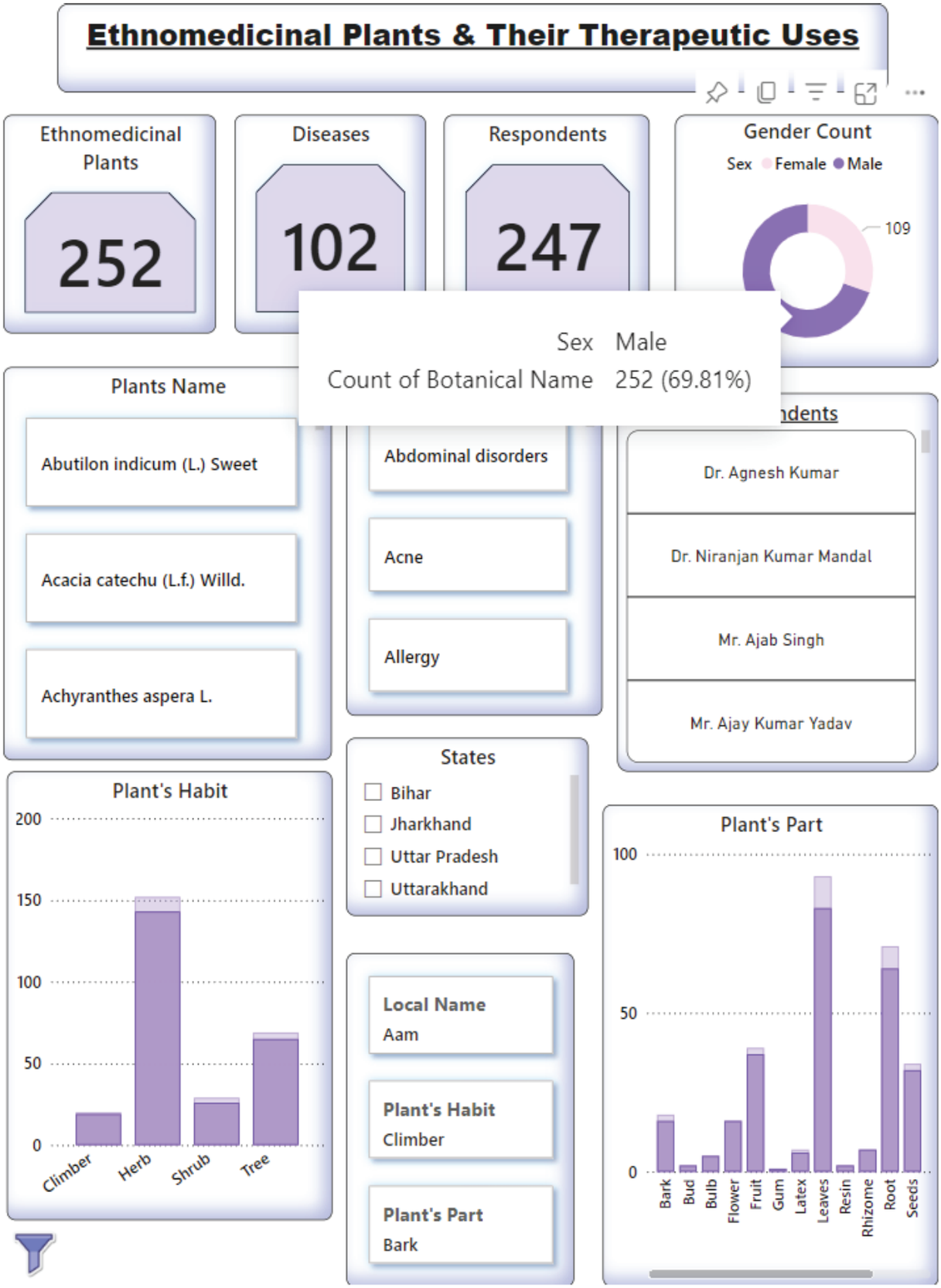



Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
269
Diseases
109
Respondents
318
Gender Count
Sex Female Male
109
252
Plants Name
Abelmoschus esculentus (L.)...
Abutilon indicum (L.) Sweet
Acacia catechu (L.f.) Willd.
Diseases
Abdominal disorders
Acne
Allergy
Respondents
Dr. Agnesh Kumar
Dr. Niranjan Kumar Mandal
Mr. Ajab Singh
Mr. Ajay Kumar Yadav
Plant's Habit
200
150
100
50
0
Climber
Herb
Shrub
Tree
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Local Name
Aam
Plant's Habit
Climber
Plant's Part
Bark
Plant's Part
100
50
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
269
Diseases
109
Respondents
318
Gender Count
Sex Female Male
109
252
Plants Name
Allium cepa L.
Allium humile Kunth
Allium sativum L.
Diseases
Abdominal disorders
Acne
Respondents
Dr. Agnesh Kumar
Dr. Niranjan Kumar Mandal
Singh
har Yadav
Plant's Ha
200
150
100
50
0
Climber
Herb
Shrub
Tree
Aam
Plant's Habit
Climber
Plant's Part
Bark
Part
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
4
Diseases
2
Respondents
1
Gender Count
Sex Male
Plants Name
Curcuma longa L.
Piper nigrum L
Zingiber offic
Diseases
Cough
Respondents
Mr. Balbir Singh
Mr. Balbir Singh Tomar
Baleshwar Rai
r. Banshidhar
Plar
3
2
1
0
Climber
Herb
Adrak, Sonth
Plant's Habit
Climber
Plant's Part
Flower
Plant's Part
1
0
Flower
Rhizome
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
1
Diseases
1
Respondents
1
Gender Count
Sex Female
1
Plants Name
Abutilon indicum (L.) Sweet
Acacia catechu (L.f.) Willd.
Acanthus ilicifolius
Diseases
Lactation
Respondents
Mrs. Mariyam Bibi
Plant's H
1.0
0.5
0.0
Shrub
Plant's Habit
Shrub
Plant's Part
Root
s Part
0.0
Root


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
252
Diseases
102
Respondents
247
Gender Count
Sex Female Male
109
Sex Male
Count of Botanical Name 252 (69.81%)
Plants Name
Abutilon indicum (L.) Sweet
Acacia catechu (L.f.) Willd.
Achyranthes aspera L.
Abdominal disorders
Acne
Allergy
Dr. Agnesh Kumar
Dr. Niranjan Kumar Mandal
Mr. Ajab Singh
Mr. Ajay Kumar Yadav
Plant's Habit
200
150
100
50
0
Climber
Herb
Shrub
Tree
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Local Name
Aam
Plant's Habit
Climber
Plant's Part
Bark
Plant's Part
100
50
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds

Ethnomedicinal Plants & Their Therapeutic Uses

Ethnomedicinal Plants
68

Diseases
48

Respondents
49

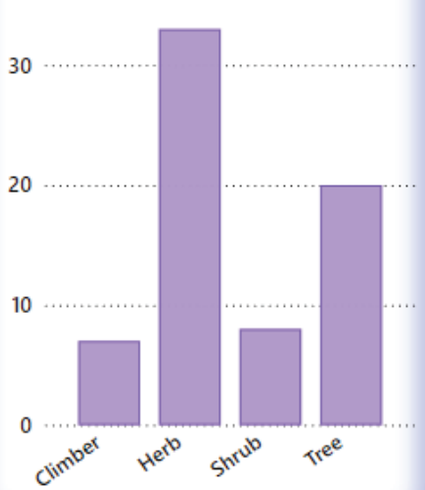
Gender Count
Sex Female Male
24
66

Plants Name
Acmella oleracea (L.)...
Albizia lebbeck (L.) Benth.
Allium sativum L.

Diseases
Acne
Anaemia
Appetite loss

Respondents
Mr. Arjun Kumar Yadav
Mr. Banshidhar
Mr. Chhote Lal Nishad
Mr. Daya Ram

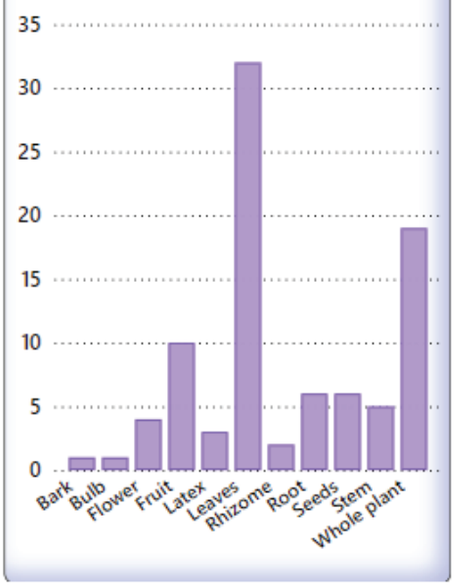
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand

Plant's Habit


Local Name
Aank, Madar

Plant's Habit
Climber

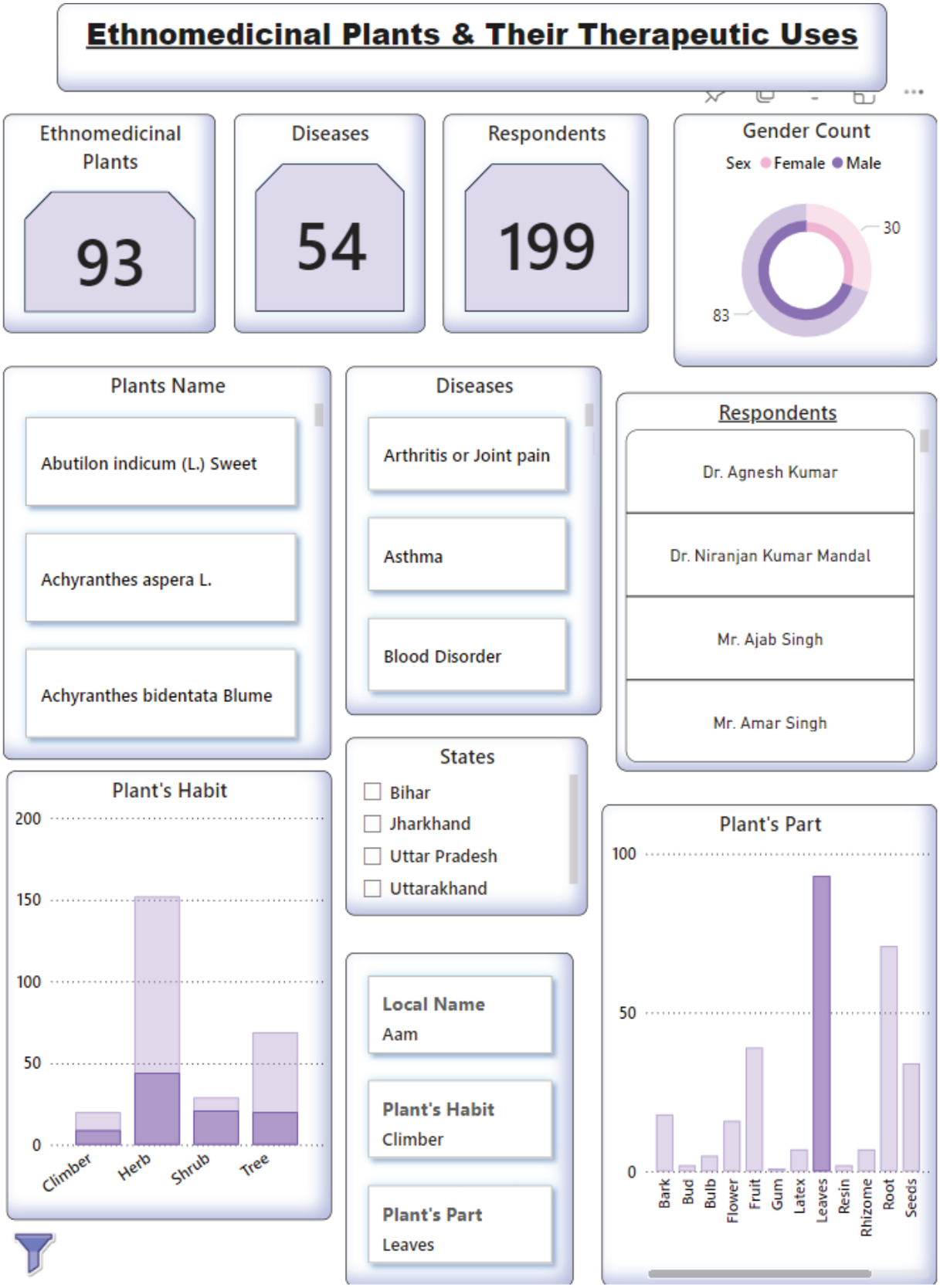
Plant's Part
Bark

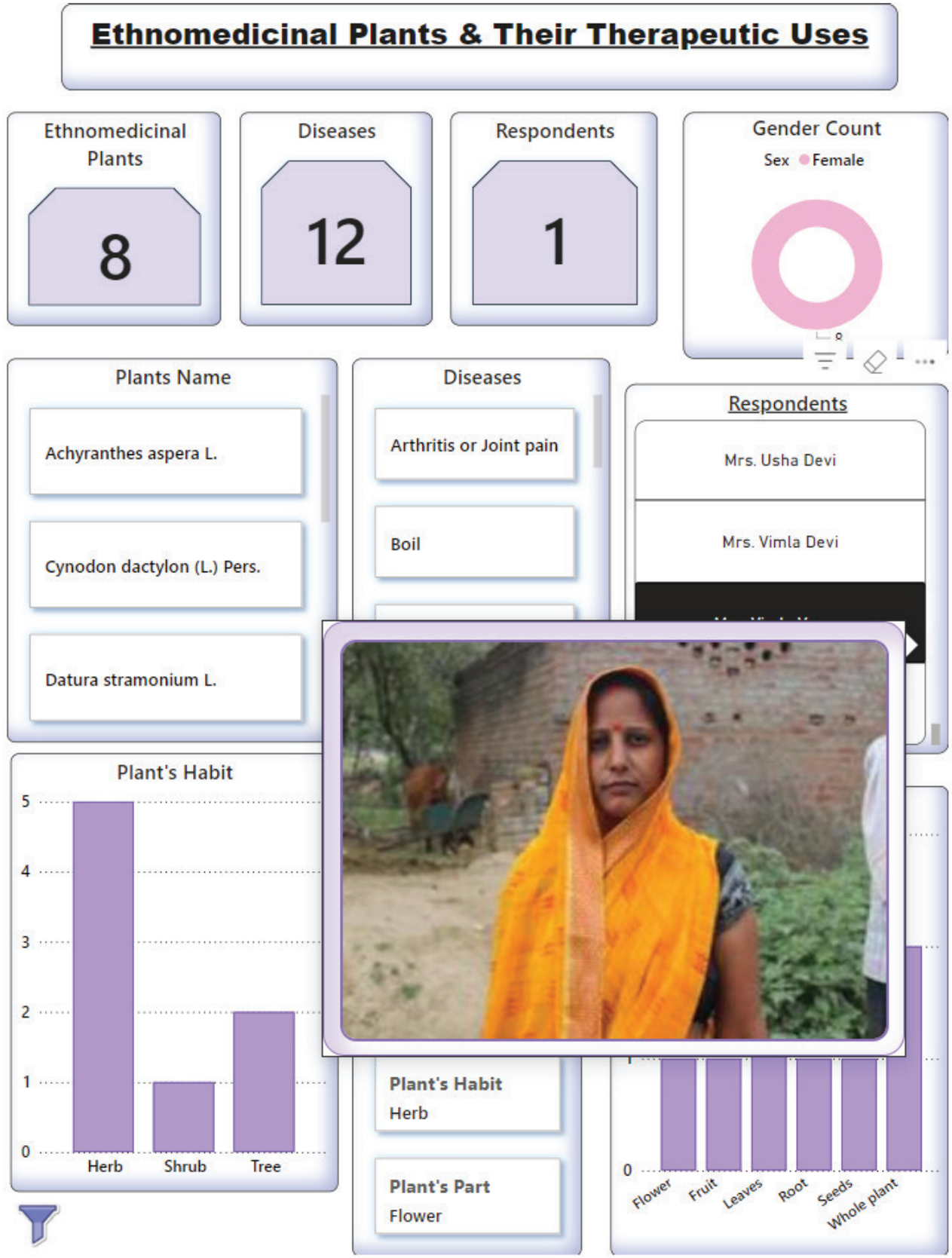
Plant's Part



Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
24
Diseases
1
Respondents
30
Gender Count
Sex Female Male
3
24
Plants Name
Albizia lebbeck (L.) Benth.
Curcuma longa L.
Ephedra gerardiana Wall. ex...
Diseases
Arthritis or Joint pain
Asthma
Backache
Respondents
Mr. Ajab Singh
Mr. Ambika Prasad Yadav
Mr. Bhupendra Singh Bangyal
Mr. Diwakar Mandal
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Plant's Habit
10
5
0
Climber
Herb
Shrub
Tree
Local Name
Adrak, Sonth
Plant's Habit
Climber
Plant's Part
Bark
Plant's Part
5
4
3
2
1
0
Bark
Bulb
Flower
Fruit
Leaves
Rhizome
Root
Seeds
Stem
Whole plant


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
152
Diseases
88
Respondents
300
Gender Count
Sex Female Male
63
143
Plants Name
Abelmoschus esculentus (L.)...
Achyranthes aspera L.
Achyranthes bidentata Blume
Diseases
Asthma
Backache
Blood Clotting
Respondents
Dr. Agnesh Kumar
Dr. Niranjan Kumar Mandal
Mr. Ajab Singh
Mr. Ajay Kumar Yadav
Plant's Habit
200
150
100
50
0
Climber
Herb
Shrub
Tree
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Local Name
Adrak, Sonth
Plant's Habit
Herb
Plant's Part
Bulb
Plant's Part
100
50
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
109
Diseases
56
Respondents
71
Gender Count
Sex Female Male
109
252
Plants Name
Acanthus ilicifolius L.
Achyranthes aspera L.
Achyranthes bidentata Blume
Diseases
Bone Disease
Brain Tonic
Cold
Respondents
Mr. Kalawati Devi
Mrs. Aasha Devi
Mrs. Anita Devi
Mrs. Aruna Devi
Plant's Habit
200
150
100
50
0
Climber
Herb
Shrub
Tree
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Local Name
Aank, Madar
Plant's Habit
Climber
Plant's Part
Bark
Plant's Part
100
50
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
93
Diseases
54
Respondents
199
Gender Count
Sex Female Male
30
83
Plants Name
Abutilon indicum (L.) Sweet
Achyranthes aspera L.
Achyranthes bidentata Blume
Diseases
Arthritis or Joint pain
Asthma
Blood Disorder
Respondents
Dr. Agnesh Kumar
Dr. Niranjan Kumar Mandal
Mr. Ajab Singh
Mr. Amar Singh
States
Bihar
Jharkhand
Uttar Pradesh
Uttarakhand
Plant's Habit
200
150
100
50
0
Climber
Herb
Shrub
Tree
Local Name
Aam
Plant's Habit
Climber
Plant's Part
Leaves
Plant's Part
100
50
0
Bark
Bud
Bulb
Flower
Fruit
Gum
Latex
Leaves
Resin
Rhizome
Root
Seeds


Ethnomedicinal Plants & Their Therapeutic Uses
Ethnomedicinal Plants
8
Diseases
12
Respondents
1
Gender Count
Sex
Female
Plants Name
Achyranthes aspera L.
Cynodon dactylon (L.) Pers.
Datura stramonium L.
Diseases
Arthritis or Joint pain
Boil
Respondents
Mrs. Usha Devi
Mrs. Vimla Devi
Plant's Habit
5
4
3
2
1
0
Herb
Shrub
Tree
Plant's Habit
Herb
Plant's Part
Flower
0
Flower
Fruit
Leaves
Root
Seeds
Whole plant