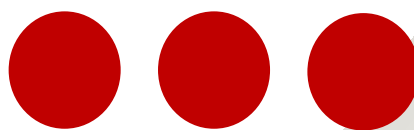


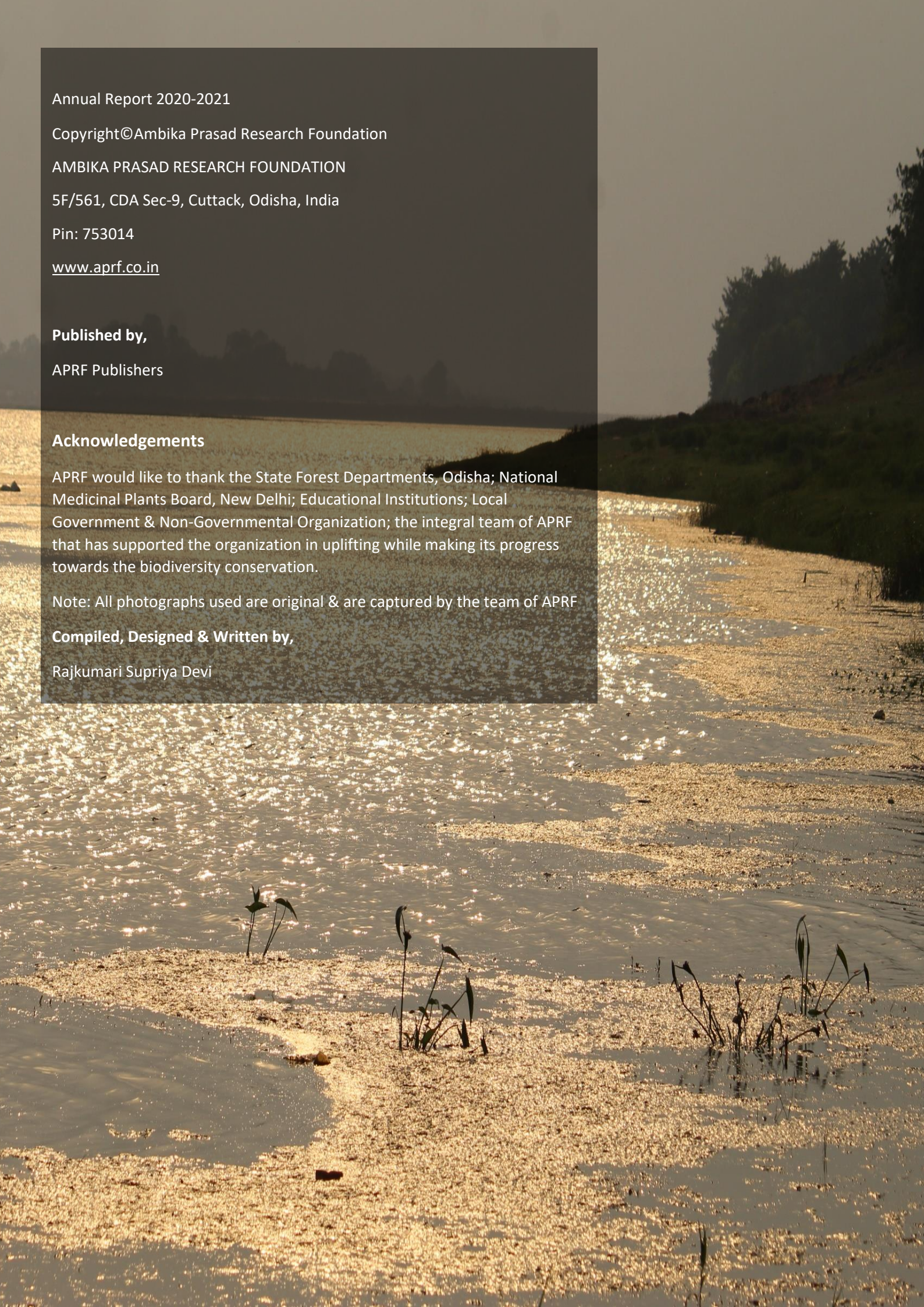


AMBIKA PRASAD
RESEARCH FOUNDATION



**ANNUAL
REPORT
2020-2021**





Annual Report 2020-2021

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AMBIKA PRASAD RESEARCH FOUNDATION

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Note: All photographs used are original & are captured by the team of APRF

Compiled, Designed & Written by,

Rajkumari Supriya Devi





PRESIDENT'S MESSAGE

Science in the field of biodiversity and conservation has recently magnified its importance. The uncertain natural disaster happening, climate change and new strains of virus and bacteria that have affected the health and economy are some of the important matters of concern in the present day. The present pandemic COVID 19 has affected each and every household directly or indirectly and thereby focusing to find ways to enhance the immune system. It is a known fact that herbal methods of therapeutic system to be the safest way. People all overworld take more concern about their health and to some extent change to a healthy lifestyle. They have started to look back to nature and how to conserve them.

APRF has been working in the reverse pharmacology to preserve the knowledge on herbal traditional therapeutic systems and making strategies to conserve the biodiversity. Documentation of such precious knowledge and scientific validation of these claims is being done.

Over the course of the year 2020-2021, many training programs, awareness programs, research activities have been taken up by the organization and it sure has benefitted different sections of the society and will still continue to work further for the betterment of mankind and nature simultaneously.

Sanjeet Kumar

(Dr. Sanjeet Kumar)



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- ❖ Trainings & Awareness Programs
 - ❖ Survey Activities
 - ❖ Publications

WHAT APRF DO?



Nest of Red ants

The scientific documentation with respect to indigenous knowledge on the therapeutic system and its relationship with the modern scientific therapeutic system is the need of the hour. The scientific validation of the tribal/indigenous community claims on the therapeutic systems and its documentation has been continuously carried out by the organization to restore the indigenous therapeutic system and screen out the ineffective mode of traditional practices.

Scientific research works dedicated to conservation and restoration of Biodiversity is the key to the activities of Ambika Prasad Research Foundation (APRF). However, Biodiversity Conservation is incomplete without the basic ground level survey activities on the flora, fauna, avifauna and its associated ecology. This survey works gives rise to new ideas for the existing gaps in the field of Research & Development.



Indigenous traditional knowledge

WHAT APRF DO?



APRF initiated its activities from the survey of floral and avifaunal assessment. The team gradually extended its activities to the identification of medicinal plants and strategies to conservation of such plants. The team with diverse expertise works unanimously with varied way of working methodology. Identification and documentation of potential threats in the urban, semi-urban and forested ecosystem and recommendation to reduce the adversity or restore the ecology of such area are some of the keen area of work. Conducting Training Programs and Awareness Programs on the Field Botany, Identification of Plants, Medicinal Plants, Ecological indicators, etc. and part and partial of the works of APRF. Again, the diverse work activities are highlighted in the later pages.

SACRED GROVES



Importance of Sacred Groves in Conservation of Sal Forest

Sacred Groves are the only places where people in community level come together with faith and genuinely protect the especially trees, herbs, shrubs or animal invertebrates or vertebrates or an ecological region where the deity is believed to be present. The strong faith makes the people in individual and community at large come out to protect such places. The team of APRF survey many such unique Sacred Groves and documented their traditional ways to offer or serve their local deity. Their community activities indicate the traditional ways to conserve the forest, trees and wildlife. Documentation these indigenous ways of conservation is urgently needed as many such Sacred Groves areas are declining with urbanization.

The art works of
wildlife,
Worshipping Sal
Tree of "Jahera"
Sacred Groves of
Santhal Community



SACRED GROVES



The ritual of plantation by the Santhal Community involving all individuals irrespective of age and gender.

Conservation of forest is done with the rituals of worshipping Sal tree & plantation of the indigenous plants.



The performance of folk music and dance of the occasion of plantation in “Jahera” Sacred Groves

TRIBAL COMMUNITIES & LIVELIHOOD

Tribal communities inhabiting in and around the forest rely on the forest for their livelihood. They collect many non-timber forest products for the use of medicinal purposes, as foods, vegetables, fruits, for preparing country liquor “Handia”, etc. For the preparation of locally made herbal pills known as Ranu pills are used to enhance the fermentation process.



Interaction with the tribal community

Their cultural and ritual practices have a positive impact for the unity of the communities and for the well-being of the forest and conservation of its resources directly or indirectly. Without the influence of some unwanted sources outside these communities, these people extract forest produce in a sustainable manner most of the time. However, in some cases, with the influence of illegal traders, some of them extract the forest resources in an unsustainable manner causing the imbalance in the forest ecology.



Interaction with Santhal Tribe during the Baha Bonga Festival

TRIBAL COMMUNITIES & LIVELIHOOD

The Baha Bonga Festival of the Santhal Tribal Community is associated with the rituals of worshipping Sal Tree (*Shorea robusta*) along with cultural dance and music. The team of APRF has been continuously taking initiatives to aware these people about the importance of forest resources especially medicinal plants with respect to sustainable harvesting to maintain the balance in the ecology, and the probable impacts of over harvesting, the current and recent advancement in research and technology in simple ways through field awareness program or seminars and workshops.



Ranu pills

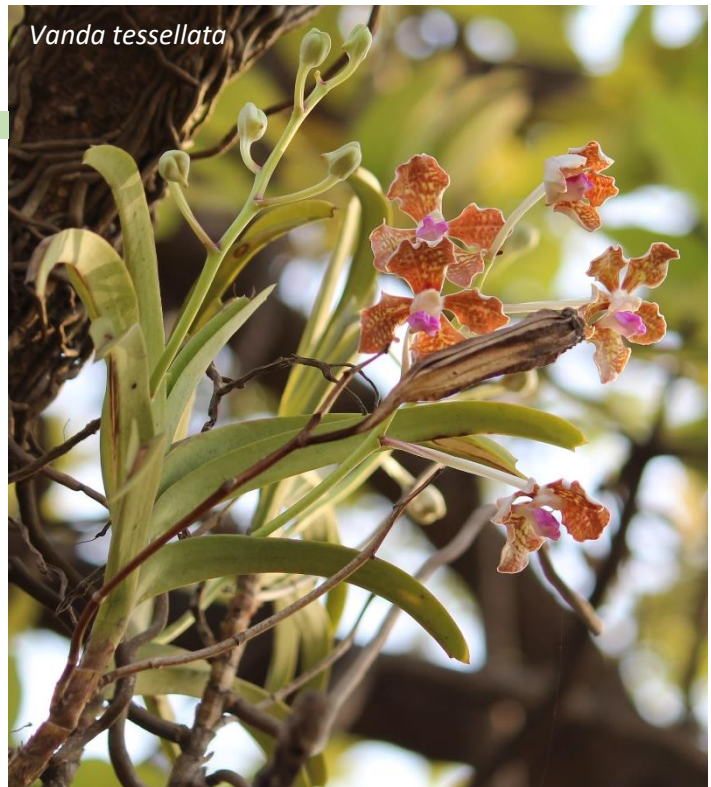
Ranu pills used to enhance fermentation for preparing country liquor “Handia” is made from multiple plants like *Cissampelos pareira*, *Elephantopus scaber*, *Woodfordia fruticosa*, *Tridax procumbens*, etc.

Santhal Tribal community rejoicing with their cultural dance



ORCHID CONSERVATION & RESTORATION

Orchids show a unique character in its morphology and possess a diverse habitat. Their unique and diverse colours, patterns and beauty attract people all over the world. However, with the felling of trees due to anthropogenic activities or by natural process of death of trees, many epiphytic orchids lose their habitat. For ornamental purposes, mostly people like to plant exotic species of orchids not considering its impacts.



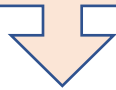
APRF has taken an initiative to create an orchid garden in Tensa Nature Camp, Bonai Forest Division with the support of the Bonai Forest Division where orchids that have lost their habitat are solely reintroduced in this garden. This initiative of reintroducing indigenous wild orchids will help to maintain ecological balance caused by exotic species.



ORCHID CONSERVATION & RESTORATION



APRF team developed an orchid garden which solely reintroduced the indigenous orchids collected from dead logs picked up from forest floor



Orchids are not only cultivated for ornamental purposes; they also have medicinal and food values. In addition to this, their growth is normally associated with the specific type of fungi. This association is mostly a symbiotic relationship. APRF has surveyed many parts of Odisha and Northeastern part of India to study the diversity of Orchids. During the survey some of the species like *Zeuxine flava* could be recorded as an addition to the flora of state of Manipur.

SCIENTIFIC MANAGEMENT OF FOREST FIRE

The survey on Forest Fire started from December 2020. In the midst of debates and controversies of forest fire in floating news and social networking sites, a proper scientific study of Forest Fire and its management was much needed. Because Forest Fire is the ongoing process with a specific time period of the year since a long time back. The debates and floating news are mostly based on the negative impacts of forest fire.

Paddy fields near forest after forest fire



Sampling



Forest Fire during night time



SCIENTIFIC MANAGEMENT OF FOREST FIRE



Fire could be sometimes rise upto 10-12 ft.

So, the team of APRF started the survey works since 2020 on various aspects of forest fire and its management. Most part of this project has come to its conclusive point. However, some technical scientific analysis is still in process and within a short period of time, a good strategy and recommendation for the management of forest fire will be released.

Some interesting observations made during the survey with respect to the height of fire from ground and how it could be recovered in a short period of time. The impacts of fire on the ground flora was very well studied in the course of time.



Survey Works

Non-Timber Forest Produces (NTFPs)



Seeds of *Azadirachta indica*



Fruits of *Diospyros melanoxylon* (Kendu)

The local communities inhabiting in and around the forest solely depend on forest for their livelihood. Besides, timber, they collect seasonal wild foods, vegetables, fruits, flowers, roots, seeds, mushrooms, etc. Most of them are talented in one way or the other. Example some are good painter, some good at handicrafts, some in preparing herbal therapeutic medicine or country liquor, etc. They have a sound knowledge about the use of wild food and medicinal plants. APRF has been working on the wild medicinal plants and mushrooms for the scientific validation of the therapeutic claims.



Flowers of *Madhuca longifolia*



Flowers of *Madhuca longifolia*



Wild mushroom collection



Wild mushroom in market

Non-Timber Forest Produces (NTFPs)



Collection of leaves and stems of Shorea robusta (Sal Tree)



Collection of leaves of Diospyros melanoxylon (Kendu leaves)

Trainings and Awareness Programs

7 DAYS TRAINING PROGRAM



PHYTOCHEMICAL LIVE TRAINING PROGRAM

SUBJECTS

1. Collection
2. Extraction
3. Phytochemicals test
4. Correlation with medicinal values
5. Short communication- Paper writing

Date: 25th December
Time: 10:00 to 11:00 AM

One candidate will select for Biodiversity and Conservation Award Scholarship for 6 months

+91-9947045614 sanjeetaprf@gmail.com

Ambika Prasad Research Foundation, Bhubaneswar, Odisha

JAN 01 2021

6 MONTHS CERTIFICATE COURSE



MEDICINAL PLANTS AND BIODIVERSITY CONSERVATION

SUBJECTS OF TRAINING

MEDICINAL PLANTS, IDENTIFICATION, TAXONOMY, ANTIMICROBIAL ACTIVITY, TOXICITY, ECOLOGY, DISTRIBUTION, IUCN STATUS & CULTIVATION, PLANT DIVERSITY ASSESSMENT IN FIELD, WETLAND FLORA & FAUNA STUDIES, CARNIVOROUS & PARASITIC PLANT STUDIES, ORCHID BIOLOGY, SAND DUNE FLORA, RIVERINE ECOSYSTEM, ECOLOGICAL FIELD TECHNIQUE (ECOLOGICAL INDEX), PHYTOCHEMISTRY, ESTIMATION OF PRIMARY AND SECONDARY METABOLITES, ANTIDIABETIC ACTIVITIES, CYTOTOXICITY ACTIVITY, SPECIES BEHAVIOURAL STUDIES

CONTACT US

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TWO DAYS TRAINING PROGRAM

DAY 1
CULTIVATION OF MEDICINAL PLANTS

DAY 2
PROPOSAL WRITING FOR FUND

Registration Details

DATE: 15TH & 16TH NOV
TIME: 8:30 PM

Pay through Google pay or phone pe and send the receipt to **9937045614**

E-certificate will be provided

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Ambika Prasad Research Foundation, Bhubaneswar, Odisha

REGISTRATION DETAILS

Duration: 6 Months

Date: 1st January
Time: 5:30 - 6:30pm

Each participants can publish their work without any extra fees

Contact Us

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SIX MONTHS CERTIFICATE COURSE

ON

MEDICINAL PLANTS AND BIODIVERSITY CONSERVATION



ONE MONTH TRAINING PROGRAM

On

Identification, characterization and bioassay of medicinal plant



Starts From
1st March

Time
6pm to 7pm

Contact us

91-9937045614
sanjeetaprf@gmail.com
www.aprf.org.in

One research or review paper will communicate in UGC Care Listed Journal within the training period with participants

Ambika Prasad Research Foundation, Odisha

APRF has been organizing training programs, workshops and seminars to a vast section of the society including students, researchers, scholars, academicians, intellectuals, traditional healers, vaidyas, forest department, etc.

However, due to the unfortunate pandemic of COVID 19 since 2020, APRF has started such programs online. And different people from different parts of the country and the world could take part and be benefitted.

Survey Activities



Survey Activities



Discussion with Forest Department



Survey Activities



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