The Applied Environmental Research Foundation (AERF) is a registered Non-Governmental Organization (NGO) based in Pune, India. Since its inception in 1994, AERF has been working towards biodiversity conservation on the ground. The Foundation applies the principles of ‘community based conservation’ and develops natural resource management models that actively involve local communities in the cause of forest protection to make conservation beneficial and to create a win-win situation for all the stakeholders. AERF’s projects are implemented in the Northern Western Ghats that form a part of a global biodiversity hotspot in India. Team AERF also works across the country for research, training, capacity building and networking for conservation.

**OUR MISSION**

To achieve biodiversity conservation on the ground through use of scientific tools, development of cutting edge solutions and multi-stakeholder engagement.
India is home to two global biodiversity hotspots, namely the Western Ghats and the Eastern Himalayas. These two sites hold approximately 6% of the world’s biodiversity and make up only 0.2% of the Earth’s landmass. In the Western Ghats hotspot, the southern part has received more attention since the last four decades due to large number of protected areas suitable for conservation research. However, due to the open access nature of most of the landscape and lack of legal protection in the form of protected areas, northern part of the western ghats has been data deficient. AERF has been promoting the importance of this part since last two decades and could contribute to innovative solutions for conservation on the ground in this landscape through various programmes and projects.

THE NORTHERN WESTERN GHATS

- Part of the Western Ghats - a global biodiversity hotspot that is home to 2% of the world’s biodiversity as designated by the United Nations (UN)
- A mountain range that supports an immense amount of biological diversity of approximately 5000 species of flowering plants and 600 species of birds, along with many RET mammals as well.
- A biodiversity haven with several acres of privately owned forests within crucial wildlife corridor zones which are under serious threat of logging, ignorance and apathy
MILESTONES

2019

1270 ACRES CONSERVED IN 2019

7513 ACRES CONSERVED IN TOTAL

339 BIOSTOVES DISTRIBUTED

11.7 TONNES HARITAKI COLLECTED

13.6 TONNES BIBHITAKI COLLECTED

376 GIANT TREES CONSERVED
We are absolutely delighted to present the Annual Report 2019. It is very special year, as AERF has entered the 25th year of its existence this year. The organization has been in the field of conservation with a firm footing and could create an impact on landscape level in the two decades. It seems like a long time, but not for the field of conservation. We have realised it over and again since our inception in 1995 that it takes a very long time to bring positive change in a natural ecosystem. We have to deal with some known challenges, some unknown risks and most importantly in our quest for healthy natural world, we must think about all species. Achieving and sustaining tangible conservation outcomes is a work of generations. We are happy that at AERF, we could stick to our mission of conservation on the ground for over two decades and could nurture equally passionate team all along this journey. At AERF we always tried to work on the solution rather than spending time and resources in researching the problems. Our experience tells us that hands-on work and constant thinking brings us closer to the deeper understanding of issues and solutions naturally emerge. This report will provide an insight into our way to test, demonstrate and scale up the solutions, engage with diverse stakeholders and communities, contribute to conservation beyond species and continue to think passionately for saving our rich diverse landscapes of Western Ghats.

AERF has been unique in its approach of constantly think about cross cutting issues and threats to biodiversity at landscape level while developing solutions, look for better opportunities through ideas, and create opportunities for a healthy relationship between people and nature together. This in turn helped us attract the continuous financial support and maintain a diverse donor base. Nature-based solutions have the potential to create avenues for scaling up green economic models that will contribute to conservation at landscape level.

In the year 2019 we expanded our work related to FAIRWILD certification to other sites in the northern Western Ghats which increased potential positive impact for conservation manifold. Our conservation agreements programme reached newer heights, we focused increasingly on capacity building of communities and new ideas like promotion of Pangolin protection as the basis of Community reserve flourished. AERF field team undertook quite a few explorations and painstakingly screened forests that could result in range-extension of distribution of many IUCN REDlist species in the northern Western Ghats.

In the last year, we mapped watershed forests from northern western ghats to understand the relationship between health of the forest and quality of freshwater supplied to the downstream communities, conducted scoping studied on Bamboo and medicinal plants like Shatavari and Guduchi as future value chains that will bring economic benefits to communities.

In 2019 our field team explored some unique ecosystems in Goa, the team could also map healthy population of landscape tree species in Western Ghats of Goa and conduct rapid surveys of much talked about unique ecosystems like Myristica swamps.

We could expand our work related to micro-corridor conservation to Khed and Mandangad blocks in Ratnagiri district and we could extend the reach of our biofuel enterprise initiative to other villages in Alibaug block in Ratnagiri district. Engaging with new partners, strengthening the existing partnerships and communicating conservation at every possible level and platforms continued in the year 2019.

At the end, we would like to thank all our donor agencies, collaborators, partners, local people, corporate supporters and wonderful teams we work with for supporting us throughout our journey of 25 years.

With globalization, shadow of pandemics, newer challenges will surface. However, we are all set to fight these challenges as we strongly believe that health of the planet will be a critical precondition for human survival here onwards.

Dr. Archana Godbole
Director, AERF

Jayant Sarnaik
Joint Director, AERF
25 years ago we came upon a degraded sacred grove nicknamed ‘modka dang’ (the broken forest) by the locals. That was our first introduction to Vashi sacred grove accompanied by the sight of a huge Bibhitaki log being dragged away for sale in order to support the temple renovation. We knew that we had to take urgent conservation action to save and restore the grove! After many meetings with the sacred grove committee members and even more awareness generation programs with the villagers through storytelling, drawing competitions, kirtans (devotional songs), we finally felt like we had a foot in the door and in June 1998 we made our first attempt at of planting native saplings in degraded and open spaces in the sacred grove of Vashi. Local community members, teachers and school children showed tremendous enthusiasm about this program and participated whole heartedly in the event. However, these happy moments were transient, and some key challenges were waiting for us as we visited the sacred grove in the post monsoon period. Some 80% of the saplings were trampled and grazed by the cattle. We were deeply saddened and frustrated knowing that our effort had failed. We called an urgent meeting and understood that the perception of conservation-related activities was to blame here. The villagers thought that plantation was a one-time activity and we would not follow up on our conservation plans while being stationed 300 kilometres away! We understood the importance of perseverance and commitment along with passion and knowledge and also explained the same to the villagers. They also renewed their pledge to restore their sacred grove and protect the saplings in front of the village deity ‘Navala devi’.

When we visited the sacred grove in January 2000, we were pleasantly surprised and amazed to see that the villagers had erected a stone fence (Gadga in local language) along the perimeter of 7-hectare sacred grove voluntarily. We were told that every member of the 9 hamlets of the village participated in building this fence. It was a reflection of their promise to the God. It was a significant achievement for us. But it could only become reality due to our passion and perseverance as well as the commitment and support of the local villagers.

In the following years, we made sure to visit the sacred grove every alternate month for maintaining the dialogue with local community for understanding their ideas and expectations, monitoring the saplings, conducting surveys. One of the important impacts of this restoration was increase in the groundwater level. Water from this well was used by nearby hamlet (Bhorichi wadi) for drinking purpose during the summer. As the water table improved, an orchard owner asked the permission of villagers to use the water for watering mango and cashew trees.
During the course, we organized a community gathering for removing the silt in the well so that more water is stored and could be used by the villagers. There were many occasions in the last twenty-five years when we had seen some stones had fallen out from the stone fence but restored back quickly by the villagers as matter of commitment.

The Vashi sacred grove as we could see today is a healthy forest with closed canopy, many giant trees fully occupied with birds, insects and orchids. It is highly satisfying and worth the wait sight.

We have learnt an important lesson from this journey with the village Vashi - true conservation means keeping the word, less talk and more action.
In the month of November 2019 a survey was conducted in this sacred grove to identify the current status of the sacred grove. A new temple is in the plans to be constructed in the sacred grove in the coming years, which is why it was important to study the area around the temple; distance of the sacred grove boundary from the temple, number of giant trees and current status of overall diversity of Trees, birds, Amphibians, Reptiles and insects. AERF team has been conducting such biodiversity surveys from several years to monitor the health of the sacred grove. Washi sacred grove has 2 major habitats, Woodland and Stream. The surrounding habitats of this sacred grove comprises of plantation of Saag & Mango and a perennial water stream. This combination of physical and vegetation diversity creates habitats for several birds and insects. Birds like Brown Wood Owl, White-rumped Shama, Oriental Dwarf Kingfisher and Malabar Pied Hornbill use this habitat to satisfy their roosting, feeding and nesting needs.

This small patch harbors key plant species of this region. Those are Saraca asoca, Beilschmeidia dalzellii, Nothapodytes nimmoniana, Dysoxylum binectariferum and Sageraea laurifolia. During this survey we managed to record 23 giant trees having GBH more than 200 cm. Payar (Ficus amplissima), Kel (Ficus tsjahela), Wavla (Holoptelea integrifolia), Amba (Mangifera indica), Karmal (Dillenia pentagyna), Putranjiva (Drypetes roxburghii), Behada (Terminalia bellirica), Katekumbal (Xantolis tomentosa), Shiras (Albizia odoratissima), Mohat (Lannea coromendelica), Padal (Stereospermum tetragonum). There were good regenerations of Putranjiva (Drypetes roxburghii) and मड (Caryota urens) in the sacred grove.

Out of 199 species of the sacred grove, 19 are endemic to the Western Ghats and 10 are listed in IUCN's Red List Data.
AERF has been using the 'conservation agreements' approach for bringing unprotected forests under conservation management for more than a decade now. Through this decade we dealt with numerous challenges and also learnt from failures, but our unflinching efforts continued! Our first set of agreements matured in the year 2018.

Our efforts, negotiations and demonstration of the idea that standing forests can generate sustainable income resulted into renewal of agreements for 10 more years.

This year, we have more renewals for longer period than the new agreements. In short we have secured the forests for 15 years! This is a big milestone for us since it is indicative of a truly sustained success of this approach, especially considering the huge extent of unprotected forest areas in the northern Western Ghats. The local communities and villages have organically decided not to change the land use.

Through this decade old programme, AERF could successfully create interest within the communities about ecosystem services of the forests like water and pollination. As a result of our continuous dialogue and capacity building for conservation, communities and agreement holders are our best ambassadors promoting and popularising this programme. A challenge accepted 25 years ago has finally started to come to fruition!

**CONSERVATION AGREEMENTS**

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**RENEWED AGREEMENTS**

686.42 acres

**NEW AGREEMENTS**

583.57 acres

- 426001 tonnes of carbon sequestered
- 40722 cubic meters of rainfall recycled each year
- 400+ socio-economic and ecological beneficiaries

New conservation agreements signed in Devade Kalambayche Khore, Ambavali, Angavali, Kule, Katavali, Tiware.


Our research team conducted biodiversity surveys in the conserved forests in Kule, Katavali, Talwade, Nayari, Tiware, Devade, Wadi-Adhishthi, Kasar-Kolwan, Chandreshwar, Ambavali newly conserved forest, Dingani, Umare, Angavali and Muchari

Forest watchers appointed at our conservation agreement sites have been trained in the skills of biodiversity documentation and monitoring. Capacity building of these village level champions for communicating results has been an important aspect for long term security of these ecologically sensitive areas in the northern Western Ghats

AERF ANNUAL REPORT 2019-9
Mutual agreement for maintaining the land-use as forest brings benefits to both communities and the cause of conservation. Our programme helped communities from Western Ghats to protect forests and biodiversity on their own terms. Facilitation and support by AERF resulted in true partnerships for conservation.

Dr. Archana Godbole
Conservation Agreement signed, cash incentive given to forest owners

Groundwater replenishes, freshwater springs emerge

AERF works with the local community to build capacity and create economic benefits from the standing forests

As the trees mature unharmed, they capture carbon and regulate rainfall, enhancing ecosystem services to the local communities

Immediate ban on logging implemented, habitat locked, forest watchers appointed.

With better freshwater sources, mammals from the surrounding protected areas can extend their range through safe corridors for movement.

A critical wildlife corridor is secured where many endemic birds and other fauna have returned and important trees like ‘Beheda’ have been saved.

For example, ‘Sustainable enviro-tourism’ develops as a source of forest-based income.

This is the first conservation agreement of 10 years!

The rate of deforestation in the region comes down by 60% - 65% due to the multi-pronged approach by AERF:
- Conservation agreements
- Sustainable cook-stoves
- Economic opportunities from the standing forests

IMPACT

0-1 YEARS

Conservation Agreement signed, cash incentive given to forest owners

5 YEARS

Groundwater replenishes, freshwater springs emerge

8 YEARS

AERF works with the local community to build capacity and create economic benefits from the standing forests

10+ YEARS

As the trees mature unharmed, they capture carbon and regulate rainfall, enhancing ecosystem services to the local communities

CREATING IMPACT ON COMMUNITIES & BIODIVERSITY THROUGH CONSERVATION AGREEMENTS

VILLAGES
DEVADE & WADI-ADHISHTI

CREATING IMPACT ON COMMUNITIES & BIODIVERSITY THROUGH CONSERVATION AGREEMENTS

AERF ANNUAL REPORT 2019-11
AERF has been trying to use various approaches for long term security to the conservation agreement areas and trying to use an approach of creating a ‘Community Reserve’ since 2016.

In the last 4 years the AERF has secured 1300 acres around Prachitgad fort in villages Tiware and Nayari using conservation agreements and the proposed area of the Community Reserve is secured till 2028-2029. Long term management plan for the proposed Prachitgad community reserve has been prepared through community processes and with the support of Biodiversity Management Communities of these two villages. In the year 2019 a detailed proposal to get the State Government’s endorsement has been prepared and we are awaiting the actual declaration of the Community Reserve. The monitoring plan and income development plans like ecotourism and green enterprises to create benefits of the conservation has also been prepared within this project.

Team AERF along with a group of 6 trained and skilled forest watchers continued stringent biodiversity monitoring in the year 2019 using camera trap surveys, transect walks, forest patrols and actual observations. The local forest watchers take pride in their work and continuously share the happenings in the forests using social media like WhatsApp. We got exciting results and could record many flora and fauna species including the elusive and critically endangered Pangolin from three new locations. But of course, habitat protection doesn’t benefit any single species - it encompasses the entire spectrum of biodiversity residing within! We are happy that our efforts to lock this habitat against deforestation could ensure that common species don’t cross the threshold into becoming vulnerable!

Our Senior Field Coordinator and Rainforest Trust Fellow Mr. Gunwant Mahajan shared his experiences of exploring the Western Ghats for rare and endangered flora species on the Rainforest Trust (RFT) blog. In the blog post, Gunwant narrated the story of discovering the endangered Smithisona viridiflora orchid form the area and its importance to the biodiversity of the reserve’s unique habitat. Read the whole story here: t.ly/szzB
Pangolins and other small mammals are illegally hunted, collected and unfortunately indigenous community of Katkari and Thakars from northern Western Ghats are made scapegoats in the deal even though their engagement in poaching is only as unwitting informants. It is a fact that these people have tremendous knowledge of the forest and know their forests thoroughly. But their engagement in poaching is generally restricted as informants and if the consignments are caught by police these people are often made scapegoats. As a part of community based work AERF specifically organised sessions with indigenous communities and to build their capacity for forest protection.

In 2019 we organised a meeting with the Katkari indigenous community from Ratnagiri district in Chiplun. In collaboration with ‘Shramik Sahayog’ to discuss our conservation initiatives and to explain their role in biodiversity conservation and management. These communities carry an enormous responsibility since they hold significant knowledge of forests and species with much less awareness of it. Therefore, such interventions are crucial to build their capacity and sensitise them about their role in reversing the current biodiversity crises. We also focussed on how their skills can be used for and further built for conservation work, thus creating new employment opportunities commanding respect and dignity!

It is important to leverage communication tools most effectively to convey any concept and also to instil a sense of pride in the audience. In 2019, we designed the logo for the ‘Prachitgad Community Reserve’ in-house using key biodiversity and cultural elements. We also developed a provisional heritage and cultural map to showcase the biodiversity bounty of the area along with the important historic places that the area holds. It was greatly appreciated by the local communities and they reiterated their support to the project.
If one looks at the occurrence of IBAs in the Western Ghats landscape, it happens more often that they have a significant overlap with existing protected areas. This leaves a gap in the conservation of threatened birds in the northern Western Ghats landscapes with its sparse and distant protected areas. Our 25 years of research in these open access forests have proven beyond doubt that there is exceptionally rich bird biodiversity in these forests as well. Our CLP team has surveyed over 25 different locations outside the protected area network and identified 15 habitats that can qualify as IBAs.

The forests of Talsar village in the buffer zone of Koyna Wildlife Sanctuary (an IBA) is one such site and has given very promising results demonstrating rich population of endemic birds during our many biodiversity surveys. We had signed a conservation agreement of 120 acres here in 2014 which was to mature in 2019. This year, we could renew it for further 10 years, thus ensuring that these important habitats of endemic bird species are conserved and nurtured! Talsar agreement renewal is also a successful example of local partnerships as we have been working in collaboration with ‘Shramik Sahayog’ for more than 6 years.

The CLP team also selected Talmachiwadi - a remotely located place with some 70 households at the foothills of Sahyadri mountain range in Junnar block. The community owned old growth forest there spreads over 300 acres. The forest area is not only rich in endemic bird diversity but supports a healthy population of Indian giant squirrels and endangered species of amphibians. The survey also revealed that there are some 8000 trees of *Terminalia chebula* in various stages of growth. CLP team conducted various meetings for understanding the threats to the forests and dependence of local community on the forests. The CLP team signed a conservation agreement with local communities wherein the communities will reap economic benefits from the value addition and certification of *Terminalia chebula* fruits and in lieu will give up on destructive harvesting practices as well as opt for using improved cook-stoves.

IMPORTANT BIRD AREAS (IBAs) IN THE NORTHERN WESTERN GHATS

Our field researcher and herpetofauna expert Akshay Gawade successfully completed Conservation Leadership Programme’s 2019 workshop on Conservation Management and Leadership held in Brazil. As part of the workshop, young conservationists were asked to design a logo for CLP’s ‘No to plastic’ campaign and introduce the mascot ‘Rebo’ -short for reusable bottle. Akshay’s design echoed his strong feelings for the subject and was chosen as the official logo for the campaign!
AERF has been engaged in conservation of sacred groves in Dodamarg and Sawantwadi blocks from Sindhudurg district. Asaniye village sacred grove has been is one of them with a very high concentration of RET (Rare Endangered Threatened) species in a small area and a strong connection of the people with the culture through the grove.

In the year 2009, suddenly a mining proposal from a company from Goa was declared and they had done a rapid Environmental Impact Assessment that was far from the facts and held no consideration of the people’s link to biodiversity and forests. Unfortunately, the sacred grove of Asaniye was also part of the proposed mining lease area of 438 acres.

The empowered villagers and sarpanch invited AERF to support them and after careful study of the area and also the EIA, we realized that it’s a huge task to save these forests from the open cast iron ore project that will devastate not only the lease area but a large tract of forest spread across 500 sq. kms around 22 villages. No way could we have let that happen! Under the leadership of AERF director Dr. Archana Godbole, the AERF team conducted rapid biodiversity assessments with local communities, and facilitated the process with the community to form a robust scientific defense on the basis of biodiversity and the economic benefits that those forests bring to them. The painstaking work and the crystal clear report clearly showed the immense biodiversity the area holds and the process culminated in a historical public hearing on 22nd April 2010. It was a different public hearing than usual, without slogans and the usual brand of activism. 21 villages apart from Asaniye were a part of this epic process. As many as 82 villagers presented their thoughts and over 400 letters were submitted opposing the mining! The proceedings went on for 14 hrs and there was not a single presentation other than EIA company in support of mining. The case for biodiversity was defended so effectively that not only Asaniye but many other smaller mining proposals have been stopped in many villages in this landscape till date.

During the year 2010, the Western Ghats Ecology Expert Panel (WGEEP) was formed and it has included these villages in the list of Ecologically Sensitive areas from Western Ghats. Later another panel of high level working group also appointed by the MoEFCC who continued the inclusion of these villages in the ESA. AERF also could sign a 10 year conservation agreements covering 100 acres in the very proposed mining lease area of Asaniye village. We remember and would like to thank all the villagers of Asaniye especially Sri Gajanan Sawant and M. D. Sawant for their support and participation throughout. Critical Ecosystem Partnership Fund’s support to our work there has been crucial.
For AERF it was an opportunity to deal with a major threat like mining, that too in a limited time. It was also an opportunity to build capacity of the local communities and support the management of the protest in a systematic manner without activism. It was certainly a turning point for us where we joined hands for a challenge and successfully saved the forests. The painstaking work of villagers, their faith in us, the timely formation of WGEEP through the Save the Western Ghats Movement (SWGM) group in 2010 - it all worked together for saving these valuable forests, sacred groves and the local peoples’ high profit orchards. We fondly remember our work and the time we have spent in the area, enriching ourselves with critical experience that has contributed a lot in our understanding of CONSERVATION ON THE GROUND!
Climate change has affected the delicate symbiosis between plants and bees by disrupting pollination cycles. Furthermore, unsustainable methods to increase productivity and rampant use of chemical fertilisers in our fields have all led to further decline in the population of bees. In a world where almost every plant-based diet source of humans relies on pollination and the health of bees, it is imperative that this issue be given priority - more so by us, since bees are integral to healthy forests!

We invoked the help of our in-house expert bee-handler Mr. Kundlik Kondhwale who is traditional honey-gatherer in Bhimashankar forests. Kundlik kaka as he is fondly known, is part of the Mahadeo Koli tribesmen and holds age-old knowledge of sustainable honey harvesting. He trained our field researchers in bee-handling and setting up of bee-boxes. The entire experience was a valuable team-building exercise since there was exchange of critical knowledge from one site to another across 400kms! Our field team at Devrukh received hands-on knowledge to pursue apiculture of Apis cerena in the surrounding villages. They independently learnt to identify the queen bee and capture and transfer the bee colony to the bee-box. Transferring the knowledge further down the pyramid, they took help of few other villagers to help them monitor the project. Despite a few failures along the way like some colonies not surviving, the team has managed to ignite a very important cause and we are currently creating a crowdfunding campaign to support our bee conservation endeavours in the northern Western Ghats.

We setup a total of 4 bee boxes in the Sangmeshwar block - in the villages Wadiadhshiti, Devade, Kosumb and Ambavali. Even though we could not sustain some of these bee-boxes, the true success of this exercise came when Rajesh - our field assistant proactively reported a new bee colony near his house and helped the researchers successfully capture the colony with the queen!

Last year we tried an exercise in nurturing the critical link between healthy biodiversity and food security through sustainable mango orchard management. Bee conservation is a key aspect within that link and in 2019 we continued our integrated approach towards the issue by promoting use of natural fertilisers and pesticides like ‘Jeevamrut’, ‘Dashaparni arka’ in local agricultural practices so as to preserve the bee population dependant on the ecosystem and to promote good pollination.
Sacred groves play a critical role in maintaining great species diversity across all taxa and represent the regional biodiversity. However, these last remaining reference ecosystems face anthropogenic stresses resulting from increased habitat destruction and changing value systems of the local communities. In partnership with the World Land Trust, we have been working towards establishing functional corridors between sacred groves for long term security to movement of wild life and avoiding human wild life conflict in the vast fragmented landscape of northern Western Ghats. To this effect, we are protecting the private forest patches between Kule-Phanasavale-Katavali sacred groves. Till now, we have protected about 395 acres of forests through conservation agreements in Kule and Katavali village till 2029. Biodiversity documentation and detailed monitoring and management plans for sacred groves and parts of these micro corridors have been prepared.

In 2019 we have initiated the processes of expanding our conservation work in the other blocks of Ratnagiri district as well. As part of this expansion, our team has surveyed more than 100 sacred groves and surrounding areas to identify potential for promoting community-based approaches. We have covered 5 blocks of 3 districts in Konkan for exploration - Khed, Mandangad, Mhasala, Dapoli and Kudal.

Detailed biodiversity surveys and socio-cultural understanding has been developed through sincere efforts on the field. While grading the sacred groves for conservation action, our team came up with a unique rating system that will be used for prioritisation of sacred groves for conservation and restoration.

**SAVING CRITICAL CORRIDORS BETWEEN SACRED GROVES**

About 4 centuries ago, a man saw a cow give milk to a stone in a sacred grove in present day Mandangad. The villagers realised that it was in fact a ‘Shiva linga’ and they tried to dig it out to take back and build a temple in the village, but to no avail. They realised that the more they dig, the more the ‘linga’ would get buried inside the ground. Finally, they built a small temple around the ‘linga’ there itself amidst the giant trees and numerous birds and animals, and it was called the ‘Swayambhu Shankara temple’

Such stories filled with mysticism, symbolism and an undeniable connect between divine and nature can be found abundantly in the northern Western Ghats and have contributed immensely to the conservation of sacred groves.
In 2019, our Director Mr. Jayant Sarnaik received a grant from National Geographic Society, USA for saving threatened species from northern Western Ghats. The exploration will also reward the custodians of the forest that is the local community.

Habitat fragmentation is one of the key drivers of biodiversity loss in the Western Ghats of India – a global biodiversity hotspot. However there exists a conservation tradition that preserves old growth forest fragments (Dang/दंग) in the name of deity at village level and the one that predates the conservation issue mentioned above. These old forest fragments did not receive deserved focus from the conservation scientists due to their bias about habitat size. Sacred groves is a generations-old tradition of forest conservation in the Konkan region. However in some of the mountainside forested areas in northern Western Ghats, there are other larger groves, that are big patches of forests specifically preserved as Dangs which are very interesting and less explored. These Dangs have a deity but not a temple and rules and rituals here are stricter than in the sacred grove near village. Since 'dangs' are restricted to a few villages in the Sahyadri, the biodiversity found here is extremely special and rare. Studies conducted by AERF field researchers in last decade or so provide significant evidence regarding role of these fragments in saving many endemic and endangered species. We think that our job is not complete without understanding this conservation tradition, its spread in the northern Western Ghats and identifying people responsible for maintaining this tradition. In our opinion, these community stewards must be rewarded for maintaining the health of these old growth forest fragments and conserving the remaining populations of many rare and threatened species of the Western Ghats. This is exactly what we have been doing in the last one year through support from National Geographic.

In the year gone by, the AERF field team conducted extensive survey in Khed and Sangameshwar block of Ratnagiri district to identify the intact forest fragments preserved through tradition. The team completed biodiversity assessment of 9 such fragments. These surveys revealed presence of endemic bird species Malabar grey hornbill, Indian Giant squirrel and many Giant specimens of endemic and rare trees of the Western Ghats. More importantly the team could meet the community stewards who shared interesting stories about the conservation tradition still being practiced in those villages.
Lophopetalum wightianum is one of the fastest growing evergreen tree species. This is an important tree species of the rain forests ecosystem of the Western Ghats, and an invariable component of the Myristica swamps and riparian ecosystems. It needs to be protected and monitored for its successful regeneration. A 2018 study showed that the plant can be used to develop formulations effective against pathogenic organisms and free radical induced oxidative damage.

Reference: Phytochemical analysis, antimicrobial and antioxidant activity of Lophopetalum wightianum Arn. (Celastraceae)
Nitish A. Bharadwaj1, Karthik Udupa K.K1, Karthik S1, Vinayaka K.S.2, Prashith Kekuda T.R.1*

EXPLORATION
STUDYING THE MYRISTICA SWAMPS OF GOA AND SINDHUDURG

Wanderings and visits to new sites certainly bring pleasant surprises. On our way to Helyachi rai near Caranjole a small sacred grove along the road with lofty trees and a large buttress caught our attention and it was an evergreen species Lophopetalum wightianum. This was in 2018 when we first came upon that sight, but in 2019, our team revisited the area to confirm its identity and collect fruits and seeds. We were pleased to record it from 4 locations in Satteri block of Goa - 2 in the Myristica swamps and 2 on the river banks. A total of 12-15 trees have been recorded. We observed that it is a giant tree with a GBH of 3-5 meters and a height of over 1000 feet! Now we are trying to grow its sapling in AERF’s nursery at Devrukh field office.

Goa has many protected areas, but interesting species and ecosystems have been often found outside protected areas. The Myristica swamps in a few sacred groves are one of such unique habitats and our team visited them to understand this wonderful water-harvesting ecosystem and how it maintains a specific combination of species in a small area. The myristica swamp in Brahma Karmali is one of the biggest swamps and is well protected, surrounded fully by moist deciduous forests. It was extremely difficult to reach and needed a lot of patience!

Armed with our findings, observations and learnings, our team visited the Myristica swamps of Sindhudurg district as well and started the process of talking with the communities about bringing them under protection owing to the amazing biodiversity they harbour, despite being outside sacred groves and conventional protected areas.

Lophopetalum wightianum is one of the fastest growing evergreen tree species. This is an important tree species of the rain forests ecosystem of the Western Ghats, and an invariable component of the Myristica swamps and riparian ecosystems. It needs to be protected and monitored for its successful regeneration. A 2018 study showed that the plant can be used to develop formulations effective against pathogenic organisms and free radical induced oxidative damage.
Bhimashankar experiences a challenging duality in its identity - a wildlife sanctuary that is an Important Bird Area (IBA) and a popular pilgrimage destination that attracts roughly half a million pilgrims each year! Jambhuldari enviro-tours is an experiential learning opportunity to highlight the vulnerability of the forests of Bhimashankar and to let patrons know of AERF’s conservation efforts in the area through an on-site interactive camping experience at our Jungle Lodge. In March 2019, we hosted the first batch of campers at the site and had a wonderful exchange of knowledge and ideas! The clear starry skies above the tents and nutritious food made locally by the indigenous community added exponentially to the experience!

All through the prolonged and excessive monsoon of 2019, the Bhimashankar field team made visits to the site through gushing seasonal rivulets for occasional maintenance and come November, we were ready to launch the Winter edition of Jambhuldari enviro-tours!

Prior to hosting guests at the site, AERF team came up with a creative idea to paint the exterior walls of the jungle lodge with depictions of the rich biodiversity of the area along with cultural elements of this pilgrimage destination. Within a very short time, they went from the drawing board to the site and made their concepts a very impressive reality! A big shout-out to Pooja, Akshay, Karn and Omkar for working day and night in sub-zero temperatures of January to make the site even more welcoming!

Mr. Vivek Nadgaoda

"The knowledge of AERF’s team members about the biodiversity of the forests is incredible and I really appreciate the knowledge I gained in these 2 days - about birds, forest conservation and all other interlinking issues. I will definitely come back again!"

Mr. Vijay Savadi

"I am an avid bird-watcher but its my first visit to Bhimashankar since I stay almost 300km away. I am amazed by all the amazing birds that I could spot here - like the Oriental Turtle Dove and many raptors as well. However, the best part is the location of this site in the middle of the jungle and the awesome home-cooked meals by Mrs. Vanita Virnak."
CONSERVING THE GIANTS OF THE WESTERN GHATS

Our crowdfunding campaign of saving 1000 giant trees on Global Giving is galvanising like-minded individuals and non-profits from other states of the Western Ghats into joining this initiative like never before. Junglescapes is one such organisation from southern Western Ghats who joined hands with us last year to save Giant trees in Bandipur region as well!

This year, we focussed on expanding our research into new villages and segmenting the Giant trees according to various anthropogenic and other parameters to identify threat levels and also to measure the impact of our conservation efforts. We mapped some 376 giant trees of more than 15 species - most populated of which were *Mangifera indica*, *Artocarpus heterophylla* and *Ficus religiosa*. The owners of these trees were also identified and discussions were held about perceptions of the owners and their expectations. Importantly, we also tried to understand two parameters that would influence the growth and survival of these trees a) overlap between the locations of these trees and the network of streams b) proximity of the trees to human settlements. It will be increasingly important to engage with local communities and understand their expectations for ensuring long term survival of these trees.

We also identified clusters of large trees since they could serve as stepping stones for many large bird species and canopy dependent mammals, if managed well. AERF decided to include one cluster of giant *Terminalia bellirica* trees from village Vanzole in our FAIRWILD certification initiative. We aim to build on the success of the FAIRWILD certification and bring more number of Giant trees under conservation management.

You can save more Giant trees by contributing to our crowdfunding campaign: t.ly/LGG9
You can also view our ArcGIS StoryMap: https://arcg.is/1TPfmn

in 2019, Dr. Godbole and Mr. Sarnaik visited the field areas of Junglescapes in the Bandipur Tiger Reserve and another NGO called ‘Forest First Samithi’ in Coorg. It is AERF’s 25th year and we wanted to celebrate it by building our network further with like-minded organisations from the southern Western Ghats. It was also an opportunity to see the giant tree collaboration expanding in Bandipur area as well as visit sacred groves from Coorg. The visit reiterated the need for community based conservation, opportunities and provided insights into hard work of restoration both in Bandipur and in Coorg. What made it extra special is the opportunity to meet our advisor Dr. Jean Phillipe Puyravaud and discuss the ongoing plant research with him.
The Biodiversity Act of India makes it mandatory for every Grampanchayat to constitute ‘Biodiversity Management Committee’ (BMC) within its area of jurisdiction. The main function of the BMC is to oversee the access and use of locally available biodiversity resources that are extracted for commercial purposes or for bio-prospecting through ‘People’s Biodiversity Register’. By documenting local traditional knowledge and establishing local community’s right over the knowledge and resources, BMCs can play a critical role in arresting environmental degradation in the unprotected landscapes of Sahyadri-Konkan corridor.

AERF has been engaged with local communities to strengthen the Biodiversity Management Committees (BMCs) as a part of the implementation of the Biodiversity Act (2004). In March 2019, AERF organised a meeting in Sangameswar, Devrukh of BMC members and communities who are the local champions of the cause and critical knowledge - holders, under a capacity building program. Many discussions took place regarding the completion of PBRs (Peoples Biodiversity Register) in four villages, the shared experiences, guidance and appreciation from authorities for further progress in the field. It was attended by 127 members including members of 42 villages, representatives of GIZ and Maharashtra State Biodiversity Board. The one day workshop was graced by Mr. Vilas Bardekar (Chairperson of the Maharashtra State biodiversity Board) as well as Ms. Aeshita Mukerjee of GIZ. The AERF team and forest officials together discussed the tedious process of preparing PBRs and their importance in effective use of knowledge and resources by local communities as well as their essential role in biodiversity conservation. The event provided an opportunity for knowledge exchange and understanding regional biodiversity in the NWG. It also helped build capacity for preparation of further PBRs.

In the year 2019, AERF has completed four detailed PBRs and more than 70 preliminary PBRs as part of Maharashtra State Biodiversity Board’s quest to speed up the process of BD act implementation.

We developed and published two booklets documenting our learnings throughout the PBR process. The booklet on ‘Bio-resource certification’ details our experience using the ABS (Access and Benefit Sharing) model for forest conservation. The ‘Training manual for BMC capacity building and PBR preparation’ outlines the process followed by us to implement the demanding and complex process in the very short time available. We hope to aid this huge undertaking by sharing this invaluable knowledge to other implementing agencies.
Nature Connect India Pvt. Ltd. (NCI) is a conservation enterprise established by AERF to create a replicable and scalable business model for biodiversity and forest conservation without harming the ecological integrity of the ecosystems. This model when scaled up will address the perception gap that has hindered long-term private investment in forests and biodiversity.

AERF facilitated India’s first FairWild certified operation for 2 value chains 6 years ago. These 2 value chains of *Terminalia chebula* (Haritaki) and *Terminalia bellirica* (Bibhitaki) have found their place in the global market through the herbal teas created by Pukka Herbs, UK. NCI has been setting up truly inclusive, transparent and biodiversity-friendly forest-based value chains in the northern Western Ghats of India. The highlight of 2019 was pushing the sale of processed Haritaki, Bibhitaki and the finished Triphala powder in a bid to move away from volume-driven to value-driven business.

In 2019, we explored new sites for setting up forest-based value chains. We completed resource assessment of Haritaki at village Jambhori in Bhimashankar and also at Talmachiwadi in Junnar. Our findings reinforced our belief on the sheer conservation potential that lies beyond protected areas and also the potential of the forests to deliver robust economic outcomes for the local communities. We also explored 2 more value chains deeply in other parts of the northern Western Ghats - Shatavari in Velhe and Bamboo in Sangameshwar.

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**LINKING CONSERVATION WITH GREEN ECONOMY**

It is important to progress from ‘volume’ driven to a ‘value’ driven business model if the conservation enterprise has to make sustained economic sense.

Jayant Sarnaik

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As part of forest-based value chain initiative, we recently helped the tribal community members at Bhimashankar to form their own cooperative for handling the business of hirda collection and processing. ‘Shri Shreepad Adivasi Farmer Producer Company Limited’ will now onwards help the community members at Bhimashankar run the Hirda value chain and make best use of the FairWild premium. This adds a very important angle of community skill building for business of the entire operation! We would like to specially appreciate our team member and field researcher Omkar Pai for his immense efforts in documentation and for incorporation and registration of this Farmer’s Producers Organisation.

Adivasi cooperative for fair practices and prices

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Exploring Bamboo as a truly sustainable building material

Bamboo is a unique building material that is both strong as well as flexible and has great untapped potential in affordable sustainable housing. *Dendrocalamus stocksii* (Managa)-a sturdy bamboo from Konkan region is available in the surroundings and on our conservation sites in Sangameshwar. To build and strengthen the Bamboo value chain and to make our forests remunerative, we started collaborating with local artisans and new age innovative architects of similar sensibilities. Our aim is to improve the visibility of bamboo and to elevate the status of this resource as a mainstream building material, especially where it is locally available.

**Shatavari - an Ayurvedic nutrition supplement**

Shatavari is a very popular Ayurvedic supplement for female reproductive health, lactation and also for its anti-oxidant properties. It is extracted from the seasonal tropical climbing herb *Asparagus racemosus* and has been traditionally harvested at Velhe which is one of our conservation sites within Pune district. This year we completed the feasibility study and are ready to dispatch the first batch of harvest to the markets!

**AERF at Biofach 2019, New Delhi**

25 years and the learning never stops! Our Directors and core team members from the Pune office visited the Biofach expo in Delhi to explore the market for organic products and allied services. We realised that there is very limited understanding of how this movement affects the forests’ health along with consumer health. There is a huge opportunity for us to develop that understanding through our brand - My Forest

**My Forest store goes live on Amazon.in**

We know you all love our forest-based natural products and souvenirs as well. This year we have finally made it easier for you to shop for My Forest products online on a platform none other than Amazon! With this, we hope that our narrative on business and biodiversity reaches many more people. It will also generate support and funds towards our conservation initiatives and increase the constituency of supporters who believe in AERF’s unique approaches to conservation in the Western Ghats! Check out our virtual store here: t.ly/eSv9
Satisfying the energy and livelihood needs of forest dependent communities in an environmentally sustainable manner poses the single biggest challenge while promoting conservation of forests and biodiversity. Since 2013, we have been developing the Biomass Gasifier Stove or the ‘Biostove’ and distributing them amongst the forest-dependant communities of the northern Western Ghats as a near-smokeless alternative to the traditional ‘chulla’. Our studies have shown that the Biostove requires 73% less fuel-wood as compared to the traditional alternative.

In 2019, we distributed over 300 biostoves in 18 villages in Alibaug- the best count so far! Our field assistant and local resource person Mr. Kailas Gawand played a huge role in this success and it is due to his persistence and unwavering belief in our cause that many local community members have started understanding the value of the forests and why we need to conserve them. This year we also concluded our project with Credit Suisse for promoting green entrepreneurship and positive incentives for biodiversity conservation, climate security and sustainable livelihoods.

We also carried out an exhaustive post-distribution survey to get an understanding of the use of the Biostove in the villages where they have been already been distributed. When asked about what were the main benefits of using the Biostove according to their experience, 34% of the people said that it saved them a lot of time, while 18% said that the smoke was reduced to a large extent.

**BIOSTOVES ‘COOKING SHOULD NOT KILL FORESTS’**

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In 2019, we hosted the 6th Earth Expeditions India programme at different sites in Ratnagiri district. The participants enjoyed the beauty of the Western Ghats in its full monsoon glory! It is always a pleasure educating these enthusiastic world travellers about the intricate relationship between species, deities and the communities in our ecological landscapes. We employed lots of audio-visual presentations and site visits to deliver knowledge. Our field team also pitched in with their expertise. However, the most awaited part was the on-ground restoration work at Kulye sacred grove which has been a star feature of EE-India since 2016! This year too, the EE and AERF team together planted almost 750 trees of native species and spread the seeds of Terminalia bellirica.

Credit Suisse volunteering at Village Sudkoli, Alibaug
In June 2019, we hosted the sixth volunteer engagement event with Credit Suisse employees at the tribal village of Sudkoli in Alibaug. This year the event was graced by the Directors of the CTO division of Credit Suisse. Volunteers tried to understand the lifestyle of the forest-dependent Katari communities through this short stint. Since this volunteering event came at the cusp of our two 3-year projects with CS, we took the opportunity to showcase the impact of the first project to the employees. Some participants had been there for previous volunteering events as well and they were pleased to see that their inputs had found execution on our end! Even so, the most enjoyable part for everybody was the plantation exercise. They took hands-on experience of reforestation by planting native species and few cash crops in a degraded patch of forest land adjoining the village thus leaving their impact behind for posterity!

DCB Bank Volunteering at Vehle, Pune
DCB bank’s association with AERF started in the year 2017 when they supported the conservation of 100 acres of forests under the conservation agreements programme. This year, we advanced our association by hosting a volunteering event for their employees at our site in village Pali (Velhe Rajgad Area in Pune district. In August 2019, 30 volunteers from DCB bank and AERF’s team successfully planted more than 100 saplings of native tree species in the degraded forest patches around Pali. Throughout the day, AERF’s team members interacted with the volunteers and explained the importance of forest conservation and the priceless ecosystem services they provide to us. Adding flavour to the event was the simple homemade lunch organised in the village by our local resource person Mr. Bharat Dalvi.
Richard Cuthbert
Director of Conservation at World Land Trust

Richard spent time on the field sites of AERF to understand the landscape better and discuss the association between WLT with AERF. He was very appreciative of the multi-pronged strategies employed by AERF to deal the various conservation challenges of the northern Western Ghats.

PARTNERS IN GROWTH

AERF’s approach to spread the word about challenges of conservation and developing long lasting solutions hinges on multi-stakeholder engagement and long-term partnerships. We believe in delivering conservation outcomes in very challenging conditions and our partners often prefer to experience it first-hand.

Suze and Sebastian Pole of Pukka herbs and Earth Song Initiative

Forest conservation in isolation is not enough and it is important to connect it with food security in order to counter the threat of land-use change from forests to agricultural fields. With EarthSong, we are exploring avenues of organic farming of medicinal plants and organic millets in a bid to contribute to agro-based livelihoods but still be connected to the surrounding forests for its sustenance and nutrition.

Amit Lahiri
Chief Sustainability Officer at O.P. Jindal Global University (JGU)

He interned with AERF in 2018 and has continued his association with us. In 2019, he visited our sites yet again to understand sacred groves better for his doctoral research, but he also expressed his wish to harbour educational partnerships between AERF and JGU for conservation education.

Vaibhav Kale and Atul Rajwade

This year we put our minds on researching and exploring bamboo as a sustainable building material. For this project, we called on board Mr. Vaibhav Kale who runs ‘Wondergrass’ which is an entrepreneurial initiative that strives to bring Bamboo based building system in the mainstream of construction-industry. Since we like to lead by example, we also thought of creating bamboo structures at our field sites. For that purpose, we approached Ar. Atul Rajwade of Third Wave Design firm in Pune. Ar. Rajwade is also an advocate for bamboo structures and has designed and executed many bamboo-based projects around Pune.

DCB Bank, CSR team

DCB bank has been supporting AERF’s forest conservation through agreements since 2017. AERF has been conducting biodiversity surveys, protection and capacity building along with restoration work in the forests under conservation agreements in Umare village from Sangameshwar block of Ratnagiri district. DCB has supported the protection of 100 acres of forests for 5 years. As part of DCB Bank’s CSR initiatives in Maharashtra, they have created a film to show the impact of their support. A team of EMPL visited AERF’s field sites in Umare in November 2019 to video document AERF’s work supported by DCB Bank. It provided an opportunity for our field teams and local community to share their views and benefits they get through the Conservation agreements approach.
Chris, Julie and Orcun from 3M, USA

In February, AERF hosted 3 pro-bono consultants from 3M International for a period of 2 weeks. The engagement focussed on reviewing AERF’s media strategies and developing better outreach material for our causes. Despite the short time period, Orcun, Chris and Julie were quick to learn about AERF and the one-day visit to our field site at Bhimashankar fed into their curiosity and analytical skills along with being loads of fun! They gave us useful insight into how we can incorporate some quick fixes into our media strategies to maximise our reach. We are sure that our association will continue well beyond this engagement and we are grateful to Pyxera Global for bringing together this alliance.

Anish Rao

Anish was a student of Mass Communication. He worked on creating the promo video for Jambhuldari enviro-tours and also video-documented the experience and knowledge of Bhimashankar’s field resource person and bee-expert - Mr Kundlik Kondhawale. His efforts will definitely help us communicate our conservation story more effectively.

Rahul Murdeshwar

Rahul was a student of Sociology and Anthropology. He worked on the post-distribution survey of the Biostoves in Alibaug and also spent time understanding the Karanj oil project. His fresh perspective was much appreciated while designing the questions for the survey.

Swaroopa Damle

Swaroopa very proactively helped with the volunteering event of Credit Suisse as well as Earth Expeditions. She additionally helped the field team at Devrukh with the survey of Giant trees, gathering valuable experience to achieve her goal of working in the field of sustainable development.

Prantika Karmakar

Prantika came from Bangalore university with a background of Chemistry, Zoology and Environmental Science. She assisted very efficiently in the survey of Giant trees in Sangameshwar block and surveyed 138 giant trees studying them for carbon sequestration biodiversity supported by these trees. She also conducted social surveys to understand the anthropological threats to these giant trees.

Nikita Gandhi

Nikita came with 14 years of experience in the corporate sector as an HR professional. She chose AERF as a bridge to pursue further studies in the development sector, aiming to gather on-ground experience. She assisted the team during site visits and also researched various universities for prospective fellowship and training partnerships.

Kimaya Kulkarni

Kimaya was a student of media and communication from the University of Edinburg. She spent time on the field understanding the various conservation initiatives of AERF and created a short film on the Biostove project. The film has been effective in communicating the gist of the project to our audience since it gathers critical testimonials of women from the field who are using the biostove for a long time.

Shubham Mendke and Shreya Joshi

Shubham and Shreya came from Tata Institute of Social Sciences, Tuljapur. They both completed the baseline research for livelihood data collection of Tiware – Ghera Prachitgad region. They also actively participated in community resource mapping activity of Tiware and Nayari villages of Sangameshwar.
AERF’s joint director - Jayant Sarnaik got the opportunity to participate in Executive Program in Social Entrepreneurship at Stanford Graduate School of Business, USA in February. It helped mainstream the key issues concerning biodiversity conservation in the Western Ghats e.g. deforestation and lack of investment in biodiversity-based enterprises on important global platform. Key lessons about scaling up excellence and other side of social businesses were learnt. More importantly, AERF’s approach to link conservation and enterprise using FAIRWILD certification in the Western Ghats caught attention of and was appreciated by the eminent faculty at Stanford.

AERF Directors Archana Godbole and Jayant Sarnaik visited the Rainforest Trust in Virginia, USA in June 2019. Meeting with the enthusiastic team of Rainforest Trust and their eagerness to support conservation efforts in Asia has been an opportunity to learn, exchange knowledge as well as discuss the progress of the Prachitgad Community Reserve in detail.

AERF continued contributing to the international decision-making processes and promoting our work and approaches to a range of stakeholders in 2019. Dr. Archana Godbole attended a ‘pilot country meeting’ and ‘CIF sub-committee meeting’ organised in Morocco in January of 2019 in the capacity of Civil Society Observer for Asia & Pacific region. AERF, as an observer organization, has been following the international climate finance decision making process since 2012. It was an opportunity to understand the large scale solar projects designed to curb climate change.

In March 2019 Dr. Archana Godbole attended Stakeholders Advisory network meeting in Singapore organised by CANSA. How the developed small nations contribute to climate action through civil society partnership has been discussed in the meeting. Dr. Godbole presented the formation of Network by CIF where she has played a key role since 2014.
Dr. Archana Godbole Director
Mr. Jayant Sarnaik Joint Director
Mr. Kumar Wadke Sr. Accounts Officer
Mr. Bhalchandra Wadke Administrative Officer
Mr. Umesh Hiremath Sr. Field Researcher
Ms. Prabhashini Mohapatra GIS Expert
Mr. Hasit Trivedi Programme In-charge: Energy and Biodiversity
Ms. Suchitra Naidu Communications In-charge
Mr. Kajal Barman GIS Analyst
Mrs. Vandana Gargate HR and Administrative Head
Mr. Karn Mahadik Jr. Research Officer
Ms. Pooja Shinde, Jr. Research Officer

DEVRUKH TEAM
Mr. Gunwant Mahajan Sr. Field Coordinator
Mr. Pranav Panvalkar Jr. Field Researcher
Mr. Akshay Gawade Jr. Field Researcher
Mr. Omkar Pai Jr. Field Researcher
Mr. Sanjay Pashte Field Coordinator
Mr. Sachin Parsharam Field Assistant
Mr. Mangesh Kamkar Field Assistant
Mr. Rajesh Jadhav Field Assistant
Ms. Shalini Khake Field Assistant
Ms. Asmita Khake Field Assistant
Mr. Nikhil Jadhav Field Assistant
Mr. Mahadev Sawant Field researcher
Mr. Akash Patil Field researcher

BHIMASHANKAR TEAM
Mr. Kundalik Kondhawale Field Coordinator
Mr. Vishwanath Wyal Field Assistant
Mr. Dnyaneshwar Vink Field Assistant
Ms. Surekha Vink Field Assistant
Mr. Vasant Kokate Field Assistant

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Mr. Vinayak Sawant Mr. Dinesh Salvi
Mr. Suresh Bavdhan Mr. Tukaram Malap
Mr. Sudam Tawade Mr. Manohar Hode
Mr. Ratnakar Sangare Mr. Ravaji Dhumak
Mr. Rajaram Mosamkar Mr. Gangaram Ghanekar
Mr. Dattaram Suvare Mr. Narayan Ghanekar

ALIBAUG TEAM
Mr. Kailas Gawand Field Assistant
Mr. Arun Bhonkar Field Assistant
Mr. Namdeo Zore Resource Person

VIDARBHA TEAM
Mr. Pradip Deshpande Field Coordinator
Mr. Madhav Kapgate Resource Person

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Dr. Kedar Joshi
Mr. Vijay Basrur
Mr. Ulhas Puranik
Mr. Sarang Kale
Mr. A.M. Gokhale, recipient of Padmashri for his outstanding work on traditional of Village Development Councils in Nagaland, this former chief secretary of Nagaland has coordinated a participatory resource enhancement project, the Nagaland Environmental Protection and Economic Development, through People’s Action (NEPED), since 1995 in Nagaland. A keen plant photographer and a taxonomist, Mr. A.M. Gokhale also served as Additional Secretary in the Ministry of Environment & Forests (MoEF) and as the Chief Secretary at the Ministry of Non Conventional Energy (MNES). At present he is the Special Adviser to the Planning Commission for North East region.

Dr. Govindasamy Agoramootry, a world renowned primatologist has been guiding officials, technical and research staff members for over 25 years in the field of ecology. He currently teaches at the College of Environmental Sciences in Tajen University, Taiwan. He has served in various global environmental conservation organizations. His research and conservation activities are spread across the globe including India, Liberia, USA, Venezuela, Taiwan, Trinidad, Malaysia, Vietnam, Singapore, Indonesia, Peru, Brazil and China. He has been awarded with numerous awards and memberships including best scientist award, National Environmental Science Academy (2007).

Dr. Dr. James Danoff Burg is the Director and Founder of Big Sky Consulting and is dedicated to providing creative, science-based conservation and education solutions for NGOs, zoos, and aquariums. His twenty years in grant writing, strategic planning, evaluation, community-based conservation, biodiversity surveys, curriculum creation, and public outreach help him to be a global leader in conservation, education, and strategy. Dr. Danoff-Burg’s graduate training focused on insect and marine invertebrate conservation evolution and ecology. For the past two decades, his research, teaching, and conservation implementation actions have focused on reducing the negative effects of human activities on biodiversity through conservation education.

Dr. Alan Hamilton, PhD, ScD, FLS, has been in the field of professional conservation and has also worked as university lecturer in the UK and Uganda for many years. His research specialty is the history of climate, forests and land use in central Africa. He was a founder of the People and Plants Initiative, a joint programme of WWF, UNESCO and the Royal Botanic Gardens Kew, designed to raise global capacity in applied ethnobotany. In 2009, Alan was made an Honorary Professor in the Kunming Institute of Botany, Chinese Academy of Sciences in recognition of his collaboration on conservation with Chinese scientists.

Dr. Jean Phillipe Puyravaud A well known ecologist contributed to understand vegetation patterns and peculiar species from various regions in the Southern Western Ghats. He is a rare combination of a researcher and a conservation practitioner.

Dr. Eduard Niesten earned his Ph.D. in Applied Economics from Stanford University in 1998. His work and research concentrate on comparing the effectiveness of different conservation approaches, with a particular interest in direct incentives and sustainable finance. He currently leads financial planning, cost modeling, business planning and benefits sharing at EcoAdvisors. He previously spent 14 years at Conservation International as Senior Director of Conservation International’s Conservation Stewards Program where he oversaw a portfolio of more than 50 projects around the globe that pursue compensation-based conservation with local communities in developing countries. Strategies for ensuring long-term viability of these initiatives include dedicated trust funds, targeted government programs for conservation and poverty alleviation, and sustainable nature-based enterprise.

Dr. Mark Lethbridge has research interests in wine quality detection using active optical instruments, wine yield estimation, chain of supply issues in agriculture, vegetation condition monitoring using field and remote sensing, optimization algorithms, decision support tools in production and natural resource management and ecological, movement and spatial modelling. Together with Dr Micheal Westphal, he developed OPRAH, a landscape restoration prioritization algorithm used in NRM. Dr Lethbridge has 15 years of field biology experience in radio tracking, mark recapture and mark resighting and has undertaken everything from small mammal pitfall trapping to medium-sized mammal treadle trapping to perfecting camel immobilization techniques with Dr Wayne Boardman. He is currently developing new and innovative ways to capture species vital rate and population growth rate data remotely using camera traps and improved aerial survey techniques.

Mr. Sanjay Upadhyay, Advocate, Supreme Court of India, is the founder and managing partner of the India’s first environmental law firm, Enviro Legal Defence Firm. He also established the charitable arm of the Law firm through the Environment Law and Development Foundation. Mr. Upadhyay has over 20 years of experience in environmental law and is an advocate at the Supreme Court of India - the Apex body for legal matter in India. He has substantial experience in rules and regulation related to forest governance and is currently member of the committee formed by the Government of India to study the regulatory regime related to felling of trees grown on private lands in India. He has served as an environmental and development law expert to most well known International, multilateral, national and state institutions. He has been part of Drafting Committees of several forest, wildlife and biodiversity related legislations both at the national and state level.

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Mr. Sanjay Upadhyay, Advocate, Supreme Court of India, is the founder and managing partner of the India’s first environmental law firm, Enviro Legal Defence Firm. He also established the charitable arm of the Law firm through the Environment Law and Development Foundation. Mr. Upadhyay has over 20 years of experience in environmental law and is an advocate at the Supreme Court of India - the Apex body for legal matter in India. He has substantial experience in rules and regulation related to forest governance and is currently member of the committee formed by the Government of India to study the regulatory regime related to felling of trees grown on private lands in India. He has served as an environmental and development law expert to most well known International, multilateral, national and state institutions. He has been part of Drafting Committees of several forest, wildlife and biodiversity related legislations both at the national and state level.

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In 2019, AERF became a member of Planetary Health Alliance (PHA). The Planetary Health Alliance supports the growth of the field of planetary health. PHA is a consortium of over 200 universities, non-governmental organizations, research institutes, and government entities from around the world committed to understanding and addressing global environmental change and its health impacts.
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