

## India

### Healthy forests, healthy people, healthy climate: An initiative for biodiversity conservation and sustainable livelihoods in the North Western Ghats

#### News from the Field



Applied Environmental Research Foundation and Conservation International

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#### Activity 1 – Carbon stock estimation of Kalamabaste community forest

It is a well-known fact that tropical forests play an important role in storing and sequestering significant amount of carbon from the atmosphere and thus regulating climate over thousands of years. The increasing interest in nature based solutions globally for mitigating climate change and achieving net zero commitments by the private sector has helped us promote the case of forest conservation for offsetting carbon emissions among this important stakeholder group. Irrespective of the significant growth in voluntary carbon market and increasing prices for certified carbon credits, accessing the carbon finance for forest conservation is very challenging to say the least. The most difficult part is to prove the additionality and arriving at consensus about the rate of degradation. Our experience in the field over the last few years tells us that extensive field work for collecting primary data on carbon stock estimation is critical for clearly addressing the gaps in perception on potential of these forests in carbon sequestration. The data also helps in clearing misunderstandings/ confusions created about the health of forests based solely on satellite imageries. AERF team achieved an important milestone in this context last year. The team successfully completed the forest carbon estimation of Kalamabaste community forest under conservation agreement for the second time in last 6 years. The first such assessment was carried out by AERF research team in 2015. This repeated assessment helped us understand incremental growth in biomass in this forest spread over 538 acres and consequently estimate growth in carbon stock over the past 6 years. As a result and most importantly, we could calculate potential of this forest in carbon dioxide emissions per acre per year. This is probably first such study in India where incremental growth in biomass and carbon stock has been estimated through collection of primary data. We are sharing pictures of our field team during the study and a table on the critical numbers of this study below for your perusal.



Community forest under agreement and community members engaged in carbon stock estimation

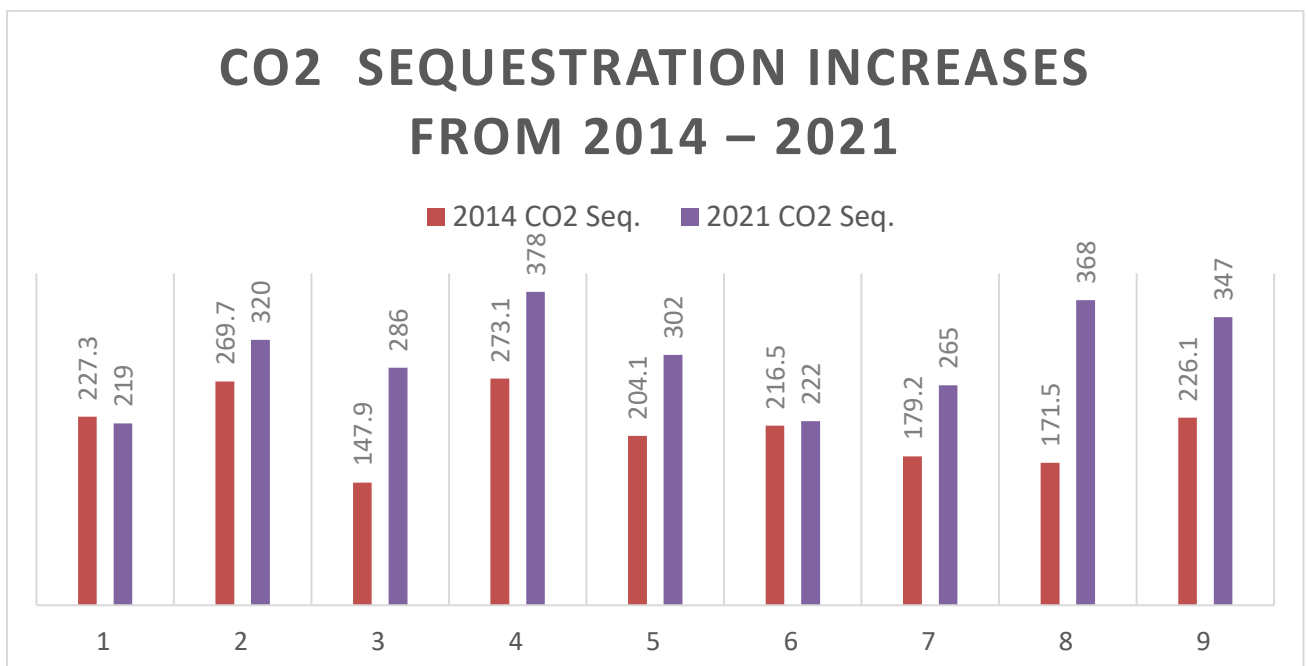


**AERF research team during the field work with community members in Kalambaste CF**

**Grid wise comparative carbon stock numbers for year 2014 and 2021**

GRID	2014- CARBON STOCK	2021- CARBON STOCK
1	61.94	59.74
2	73.48	87.13
3	40.31	78.04
4	74.42	102.92
5	55.6	82.21
6	58.99	60.44
7	48.84	72.22
8	46.74	100.22
9	61.62	94.65

**Respective increase in CO2 sequestration per grid over the last 6 years.**



## Summary of findings on carbon stock estimation and carbon dioxide sequestration from the study

Tons of Carbon stock increased in 6 years in 9 girds	215.62
Tons of Carbon stock per hectares in 6 years	23.96
Tons of Carbon stock increases per acre in 6 years	9.70
Tons of Carbon stock increases per acre per year	1.62
Tons of Co2 sequestration per acre per year	5.93
Tons of Co2 sequestration per year in total 538 Acres	3190

The above table shows the significance of the community/ privately owned forests in the northern Western Ghats in mitigating climate change. More importantly, we value the commitment of local communities in protecting the forests that they agreed to while signing the agreement. We feel that our approach and efforts to continuously engage with local communities for capacity building in conservation has ensured the **social sustainability** of this initiative.

### Activity 2 – Biodiversity monitoring across seasons in forests under conservation agreements

AERF field researchers' dedicated efforts in monitoring biodiversity in Bamnoli private forest has resulted in some very interesting and new findings in the last year. The camera traps deployed in this forest caught the image of **Jerdon's palm civet**. This civet has been captured on trail camera for the first time in private forests of northern Western Ghats. Besides that it is a rare animal, this civet is endemic to the Western Ghats! Similarly, our researcher found another important plant species *Ceropegia huberi* in these forests. This plant is **endemic to northern Western Ghats** making these forests even more important from biodiversity conservation perspective. We are glad to share images of the forests under agreement in **village Bamnoli** and of the rare species.







*Ceropegia huberi*



Jerdon's palm civet