DISCREDITED
THE VOLUNTARY CARBON MARKET IN INDIA
DO PEOPLE AND CLIMATE BENEFIT?

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A FORENSIC DIVE INTO CARBON TRADE

A CSE - Down to Earth investigation
Men in Black

Carbon markets have the potential to unlock investment for low-carbon transition in our world

Under Kyoto Protocol, CDM was set up to issue credits; but its design was flawed. It became the cheap development mechanism

At COP 28, world will discuss Article 6 of the Paris Agreement, agree on rules for a global market; bilateral or global

Till then, there is a voluntary carbon market that operates

Important to understand its functioning; to understand how it is mitigating emissions; how the international market should be designed

Our investigation
VCM is a sophisticated ecosystem. It involves a multitude of players to ensure that a carbon-offset project reduces GHG emissions. But in this cosy carbon club, conversations take place behind closed doors; no one wants to talk about prices. It's a world designed by developers, verifiers, validators and registries to make money.
Annual transactions of the VCM were $2 billion in 2021.

### Global stocktake

<table>
<thead>
<tr>
<th>Sector Type</th>
<th>Projects (registered and listed)</th>
<th>Credits (issued only for registered projects)</th>
<th>India's % share of world</th>
<th>World</th>
<th>India</th>
<th>India's % share of world</th>
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<tbody>
<tr>
<td></td>
<td>Projects</td>
<td>Credits</td>
<td></td>
<td>World</td>
<td>India</td>
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<td>606</td>
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<td>703</td>
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<td>19</td>
<td>11,428,040</td>
<td>5.26%</td>
<td>408,975</td>
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<td>2.198</td>
<td>124,132,149</td>
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<td>11,760,724</td>
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<td>238</td>
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<td>2.278</td>
<td>583,862,426</td>
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<td>268,241,741</td>
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<td>45</td>
<td>462,757</td>
<td>24.44%</td>
<td>186,613</td>
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<td>388</td>
<td>58,185,213</td>
<td>3.61%</td>
<td>572,135</td>
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<td>14</td>
<td>572,135</td>
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<tr>
<td>Carbon Capture &amp; Storage</td>
<td>6</td>
<td>14,581</td>
<td>0.00%</td>
<td>0</td>
<td>0.00%</td>
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<td>0</td>
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<tr>
<td><strong>Total</strong></td>
<td>6,481</td>
<td>1,415,630,648</td>
<td>22.39%</td>
<td>298,008,202</td>
<td>21.05%</td>
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Globally, 2 leading registries with 6,481 listed projects have issued carbon credits for avoiding/ slashing 1.4 billion tonnes of GHG emissions.
India is the 2nd largest supplier of offsets.

India’s VCM is worth over $1.2 billion. The country has 1,451 projects registered or under various stages of consideration at the leading carbon registries. Carbon credits issued to Indian entities till mid-2023 are worth almost 10 per cent of India’s annual greenhouse gas emissions in 2020.

<table>
<thead>
<tr>
<th>Scope &amp; type</th>
<th>Registered projects</th>
<th>Credits issued</th>
<th>% of credits issued</th>
<th>Credits retired</th>
<th>% of retired credits</th>
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<tr>
<td>Industry processes</td>
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<td>408,975</td>
<td>0.14</td>
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<td>Land use</td>
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<td>537,469</td>
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<td>Transport &amp; community</td>
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<td>11,769,724</td>
<td>3.95</td>
<td>4,525,043</td>
<td>2.76</td>
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<td>&amp; commercial</td>
<td>37</td>
<td>14,028,974</td>
<td>4.71</td>
<td>9,657,484</td>
<td>5.89</td>
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<td>Power energy</td>
<td>675</td>
<td>268,241,741</td>
<td>90.01</td>
<td>148,460,360</td>
<td>90.57</td>
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<td>Agriculture &amp; forestry</td>
<td>3</td>
<td>186,613</td>
<td>0.06</td>
<td>90,004</td>
<td>0.05</td>
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<td>Water management</td>
<td>5</td>
<td>572,135</td>
<td>0.19</td>
<td>138,807</td>
<td>0.08</td>
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</tbody>
</table>
Only rule is secrecy

Our investigation has been difficult
No government database on the number of voluntary projects
Individual companies can make contracts to ‘sell credits’ and then say that these are under confidentiality clause. No idea of project sites; no information on price; beneficiaries
We had to build database; 1451 projects in different categories
Use database to identify project developers; project sites and we were still blocked
But we pushed on:
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DTE-CSE INVESTIGATION INVOLVES

40 locations,
5 project categories, 4 states

Project categories:
Improved cookstoves; Afforestation;
Alternate wetting and drying rice production; Household biogas plants;
Renewable energy

States visited:
Madhya Pradesh; Karnataka;
Telangana; Andhra Pradesh

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DEVELOPERS UNRESPONSIVE

“At this point, the company is in a silent period, and we will not be able to respond,” emailed a developer of a carbon-offset project. “On the outset, we are a third-party certifying agency and are bound by confidentiality law. We regret, we would not be of much help to you,” said a validation and verification body.

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DISCOURAGED TO VISIT PROJECT SITES

DTE-CSE was asked to sign non-disclosure agreements before visiting project sites. One developer discouraged the team from visiting the project, citing poor road conditions during the monsoons and insurgency concerns.

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What we found
Distribution of clean cookstoves as a business model in the carbon market has picked up in recent years. Over 300 cookstove projects were added to key carbon registries in 2022 alone – mostly in Africa and South Asia.

We visited villages in Karnataka and Madhya Pradesh, where two projects have been implemented by Greenway Grameen Pvt Ltd and EKI Energy Services.

Clean cookstove projects in Madhya Pradesh and Karnataka lead to credit overestimation: Developers assume that the target population primarily depends on biomass and that they would shift to low-emission appliances without any incentive for behaviour change.

However, in all households we visited we found that people were using multiple sources for cooking; including LPG.

Lakshmi bought the clean cookstove three years ago. She has had a gas stove for the past seven years too. She uses both the gas stove and the clean cookstove for cooking.
Rahul Sonwani from Phoolsagar in Madhya Pradesh's Mandla district has received two improved cookstoves from different distributors. He uses only one of the stoves, that too for boiling water.
Araku Valley Livelihood Project officially started in 2014. Some 6,000 hectares (ha) across over 333 villages across the Araku Valley in the Eastern Ghats of Andhra Pradesh were covered under the project.

Communities in Andhra Pradesh’s Araku Valley have set up plantations on their lands and credits earned by the project are owned by a foreign developer; “have signed an agreement through Nandi Foundation, acting on behalf of Danone” agreement is that they have given up their carbon rights for 20 years.

DTE-CSE interviewed were not aware of carbon credits.

Janni Mithula of Thotavalasa village in Andhra Pradesh’s Araku tea, coffee and mango plantations. For 20 years she has been planting trees provided by Naandi Foundation. In 2010, Naandi Foundation began a carbon-offset project that has received over 96,000 carbon credits for reforestation activities. Mithula says she is not aware of carbon credits.
Kondavalasa village in Araku Valley of Andhra Pradesh says the government’s Integrated Tribal Development Agency has been providing free of coffee and horticulture crops to the tribal farmers of the region before Naandi Foundation started its plantation programme in Araku. Foundation’s afforestation activities are part of a carbon-offset project based Livelihoods Funds.

- In its 20 years, the project document claims that it would reduce 1.6 million tonnes of CO2e. Based on a conservative price of US$ 8 per credit, this would total to US$ 12.8 million in 20 years or roughly 100 crore.
- We found two issues with the project: additionality and community benefits
- Who planted the trees? Integrated Tribal Development Agency says that they also contributed to afforestation since 1990.
- Who benefits from carbon credits? The only benefit accruing to tribals is free sapling and training? They get nothing out of proceeds of carbon credits towards their cost of labour and
- But investors are benefitting
- In 2019-2020, Michelin Group claimed offset for its employees travel from this project
- Evian claimed carbon neutrality based on planting trees in Araku.
STUDY 3: MANAGING METHANE

Core CarbonX and VNV have studied two projects that are awaiting registration in Verra: Sustainable Rice Productions in Telangana and Sustainable Rice Cultivation for Marginal Farmers in Madhya Pradesh. These projects follow AWD to reduce methane emissions by an average of 43%.

Core CarbonX and VNV have signed agreements with the farmers stating that they have relinquished rights to carbon credits.

For the core carbon project, each farmer is expected to earn INR 1,920 per ha per annum.

For the VNV project in MP, each participating group (each group is expected to have about 30 farmers) would receive a financial support of INR 50,000 annually—roughly INR 1,666 per farmer per year—to cover operational expenses.

Farmers in Thummalagudam village in Nalgonda district, Telangana follow alternate wetting and drying method to reduce emissions of methane, a greenhouse gas, from farming. Project developer Core CarbonX plans to join the voluntary carbon market to claim carbon credits against methane reduction.
CASE STUDY 4: HOUSEHOLD BIOGAS PLANTS

Globally, over 200 household biogas projects are registered with Verra and Gold Standard. Over 50 projects are from India that have collectively generated 4 million credits.

**PROJECT NAME:** Core Carbon Sustainable Rice Productions (id: VCS 3238; status: under consideration with Verra)

**PROJECT DEVELOPER:** Core CarbonX Solutions Pvt Ltd, Hyderabad

**PROJECT TYPE:** Agriculture

**LOCATION:** Telangana

**PROJECT DETAILS:** Methane emission reduction by promoting alternate wetting and drying method across 550,000 ha

**EMISSION REDUCTION:** 52,920 tonnes of CO₂e per year

**PROJECT NAME:** Sustainable rice productions for marginal farmers in Madhya Pradesh (id: VCS 3156; status: under consideration with Verra)

**PROJECT DEVELOPER:** Value Network Ventures Advisory Services, Bengaluru

**PROJECT TYPE:** Agriculturer

**LOCATION:** Madhya Pradesh

**PROJECT DETAILS:** Implement alternate wetting and drying method in fields of smallholder farmers

**EMISSION REDUCTION:** 189,404 tonnes of CO₂e per year
CASE STUDY 4: HOUSEHOLD BIOGAS PLANTS

- **Issues**

- **Additionality and therefore, who should claim the credits** found that biogas plants, which were claimed under carbon-credit programs, had been paid for by MP government subsidy programs even by the poor beneficiaries.

- **Underestimating the cost of biogas plants**: Carbon credits earned between US$ 16-56/year (Rs 1319-4617) for seven years. This is a pittance as compared to the capital cost of building a biogas plant (US$ 364 or Rs 30,000). Then is the issue of maintenance and labour.

- Clearly, the credits being taken by rich polluters are being paid on the backs of the poorest; they are subsiding the rich...
projects are biggest share of the carbon credits portfolio in India
675 registered projects for 268 million credits; 148 million retired.
It is observed that carbon credits issued to renewable energy are a small fraction of the project cost.

Credits being taken as offsets would represent 3-5% of the capital cost of the project for the first crediting period.

This means that the project is not being built/or has become viable because of this carbon credit. But people are claiming offsets saying that the project has happened so they can show reduction.
Entire purpose of this market seems to be to serve the interest of the retinue of project developers; auditors and others who make a profit out of the lucrative carbon business.

This market is not about mitigating emissions; this is not the purpose of the design of the current voluntary market.

In fact, it could end up increasing emissions in the world. The buyers – say the airline company; oil company or a luxury goods brand – would continue to emit; increase their emissions, by saying that they have bought credits and so are carbon neutral.

But, as our investigation shows, these credits are over-estimated or have not led to the change that was claimed. So, this is a double jeopardy.

Our climate risked world does not need this shady, secretive business of creative carbon accounting.
COP28: Agenda for carbon markets

1. **Ensure transparency**: details of projects; price of each credit; beneficiary – simply rules of good governance

2. **Pay the price of real change**: Design market to invest in projects that will lead to real reduction in emissions;
   - Renewable Energy: offsets pay for 3-5% of cost – does not make project viable/happen
   - In biogas projects carbon markets pay 2-7% of capital cost.
   - In nature-based solutions (planting trees) poor not getting cost of labour or land
   - Immoral business as the rich who are claiming offsets are being subsidized by poor governments and poor people

**Put a floor price to carbon credit** (Rwandan government proposal US$30 or even higher)
Design of carbon markets

3. Do not shortchange people or the Planet

Household devices (chulhas) – even if given free (which we found is not the case) would add up to only 20 per cent of what the developer would earn over the 5-6 year lifespan of the project.

We cannot expect behaviour change unless people benefit annually; what is the incentive for households to use the device; to not cut the tree or to utilize biogas energy?

Follow the original Zimbabwe government proposal to share substantial proceeds directly with communities.
4. **Keep it simple**: current design is to benefit the army of verifiers; developers; auditors, registries. And even then they cannot even add up the maths of carbon credits to get it right.

In fact name of the game is to over-complicate the design so that there is no accountability and it is open for fudge and fraud.

Example:

Even a child in India will tell you that a mere ‘gift’ of an improved cookstove does not add up to its use and so emission reduction...

The business is opaque for a good reason. It has secrets to keep.
5. Fundamental flaw: in whose credit?

Under the Paris Agreement (unlike Kyoto Protocol) **all** countries have emission reduction targets (Nationally Determined Contributions)

India has a commitment to reduce emission intensity of its economy; to augment non-fossil fuels to meet 50% of its electricity by 2030; to have additional forests for carbon ‘sinks’

But

We have already signed 675 renewable projects for 268 million tonnes of CO2e; will these go to India’s account? ‘Offsets’ have already been claimed against them so can these be in our account?

Bulk of tree plantation is on land outside forests (TOF); what happens when we account for our additional sinks? Which trees do we **not** count?
Redesign carbon markets **for real change**

Voluntary carbon market must be aligned with India’s (and other countries NDC). Emission reductions must be counted as domestic offsets.

Exports for offsets – voluntary or ‘official’ must be for projects which are expensive for the country to undertake; where there is real change possible.

Otherwise countries will ‘sell’ their low-hanging fruit; cheap emission reduction options and then be left with the reductions that they cannot afford. They will continue to emit.. **We will all lose**

**Bottomline: design carbon markets to work for Planet and People**