



# How digital MRV can strengthen the integrity of carbon credits

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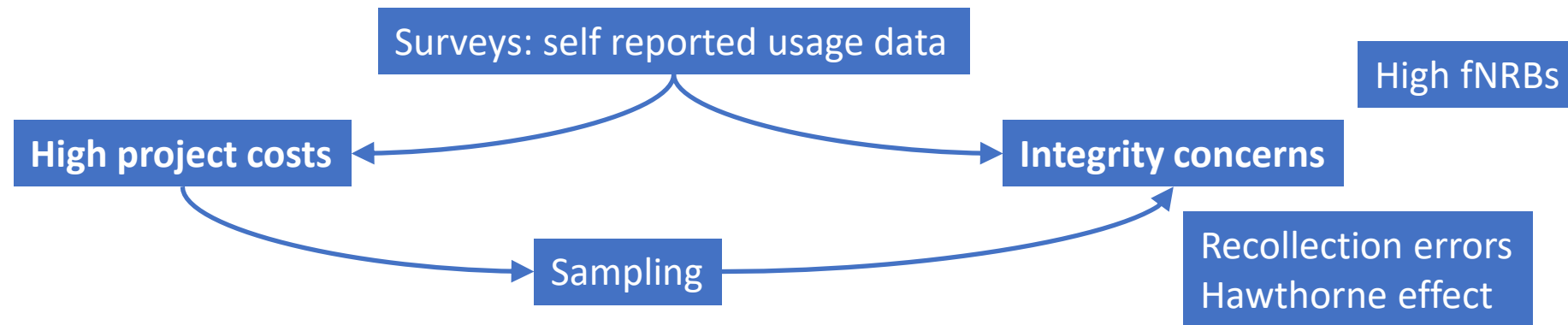


## Aims of this part

- The issues with regular MRV
- Key aspects of dMRV for integrity
- Metered & Measured (or Continuously Tracked) usage
- Beyond carbon
- Where next?

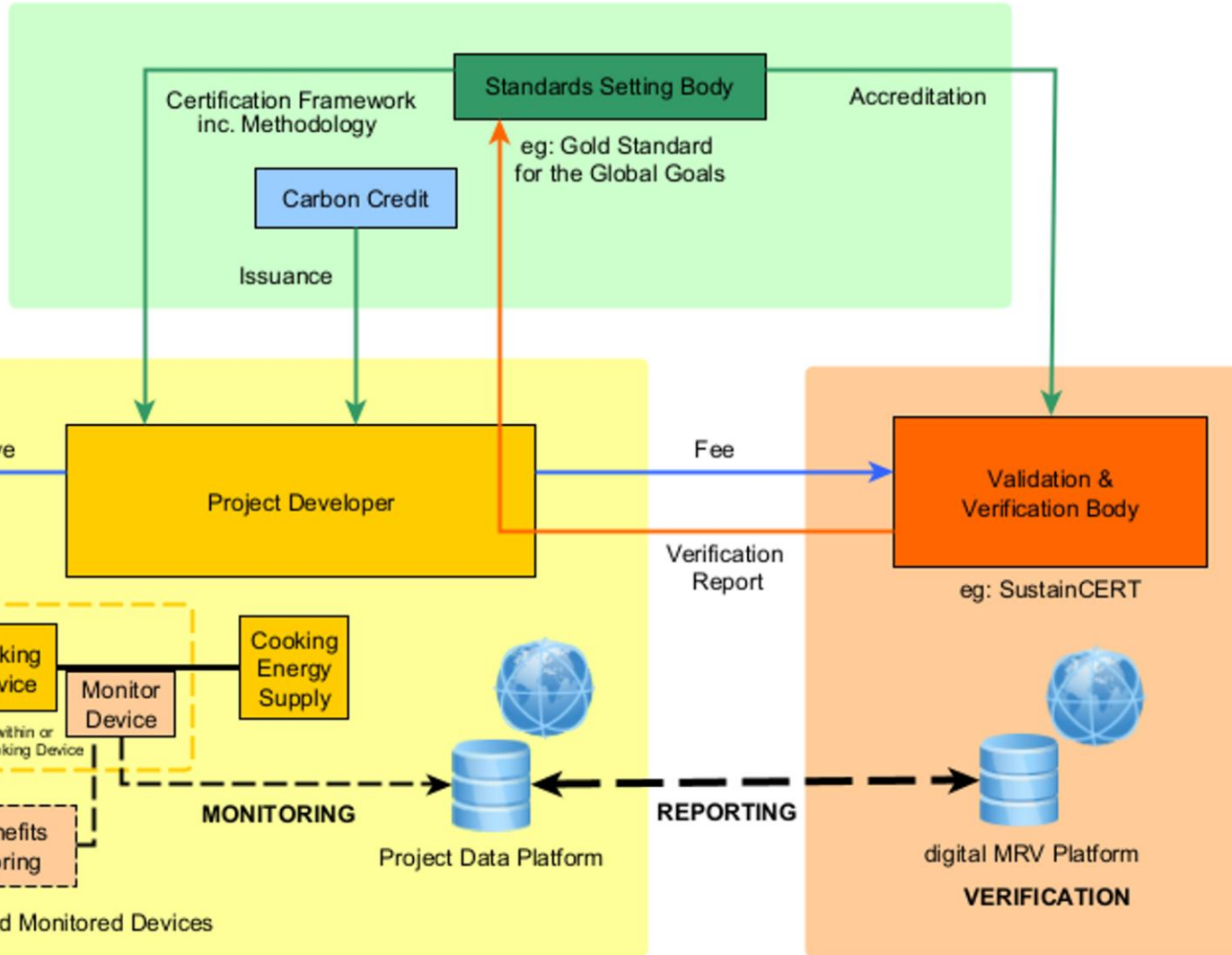
# Carbon Credits & clean cooking: issues with regular MRV

- Historically credit prices low, and project costs high, but ICS projects continued to make money...
- Crisis in confidence around carbon credits due to some scandals, both forestry and ICS



- MECS sought to tackle these twin challenges, through digital usage data
  - An important element of wider dMRV

# dMRV for clean cooking



Digital usage data,  
Key aspects for integrity and cost:

- Accuracy in Measurement
- IoT Integration
- Real-time monitoring
- Automated Reporting
- Transparency of data - Security for Data Integrity
- Incentivise higher usage – suppressed demand

Source: [RE-Innovation report for MECS](#)

# Methodology for Metered & Measured Energy Cooking Devices (MMECD)

- MECS worked with Climate Impact Partners and GS to create the first methodology to estimate GHG emission reductions using real usage data
- Uses the back-calculation approach to estimate the avoided baseline fuel use
- More accurate and potentially lower cost than surveys
- MMECD also used in article 6.2; is the basis of Verra's VM0050, and is the origin of CLEAR's CTEC path.
- Berkeley "Cooking the books": MMECD
- Metered approaches are focus for ICVCM and rating agencies
- Seeing eCook and pellet stove developers achieving premium prices, \$25-\$35 /tonne



# Measured cooking project

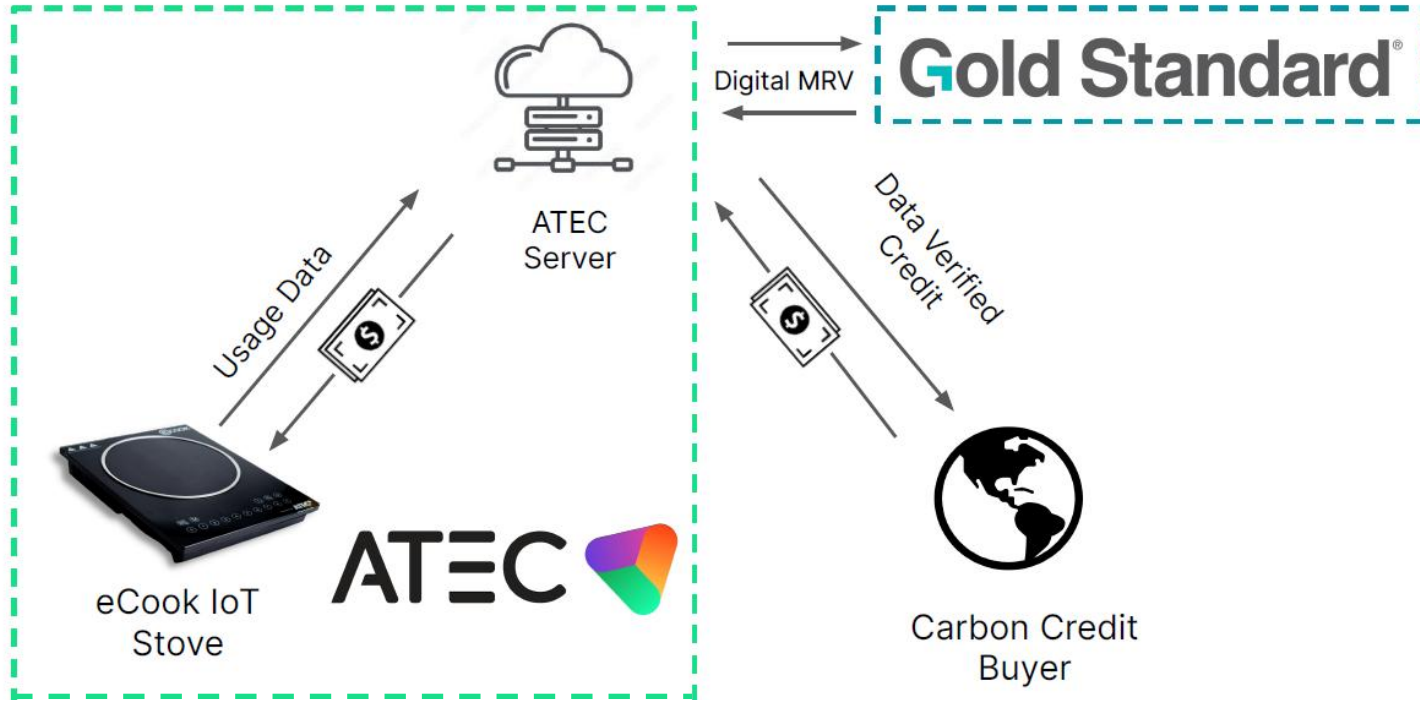


Source: <https://ecosafi.com/>

EcoSafi advanced gasifier stove, pellets (10 and 30kg), delivery model

- First MMECD project to issue credits using 100% measured customer data.
- Digital tracking of fuel sales and assigning individual customer baselines, earned BeZero Carbon's first 'A' rated cookstove project.
- EcoSafi sold all credits from 2021–2024 at a premium price of \$35, demonstrating strong buyer confidence in the project's integrity.

# Metered cooking project

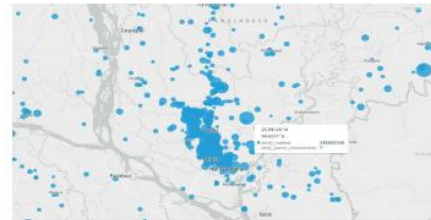


Worked with ATEC to pilot MMECD

IoT enabled induction stoves, in Bangladesh and Cambodia

**Clear verification of actual use =>** offered premium carbon prices (north of \$20) pre-sold 11.5m tonnes to Engie.

Make sure **value reaches actual user**, mitigating upfront cost AND ongoing electricity costs



ATEC's carbon credit real-time dashboard

Fair revenue sharing



# MORE THAN JUST A CARBON PROJECT

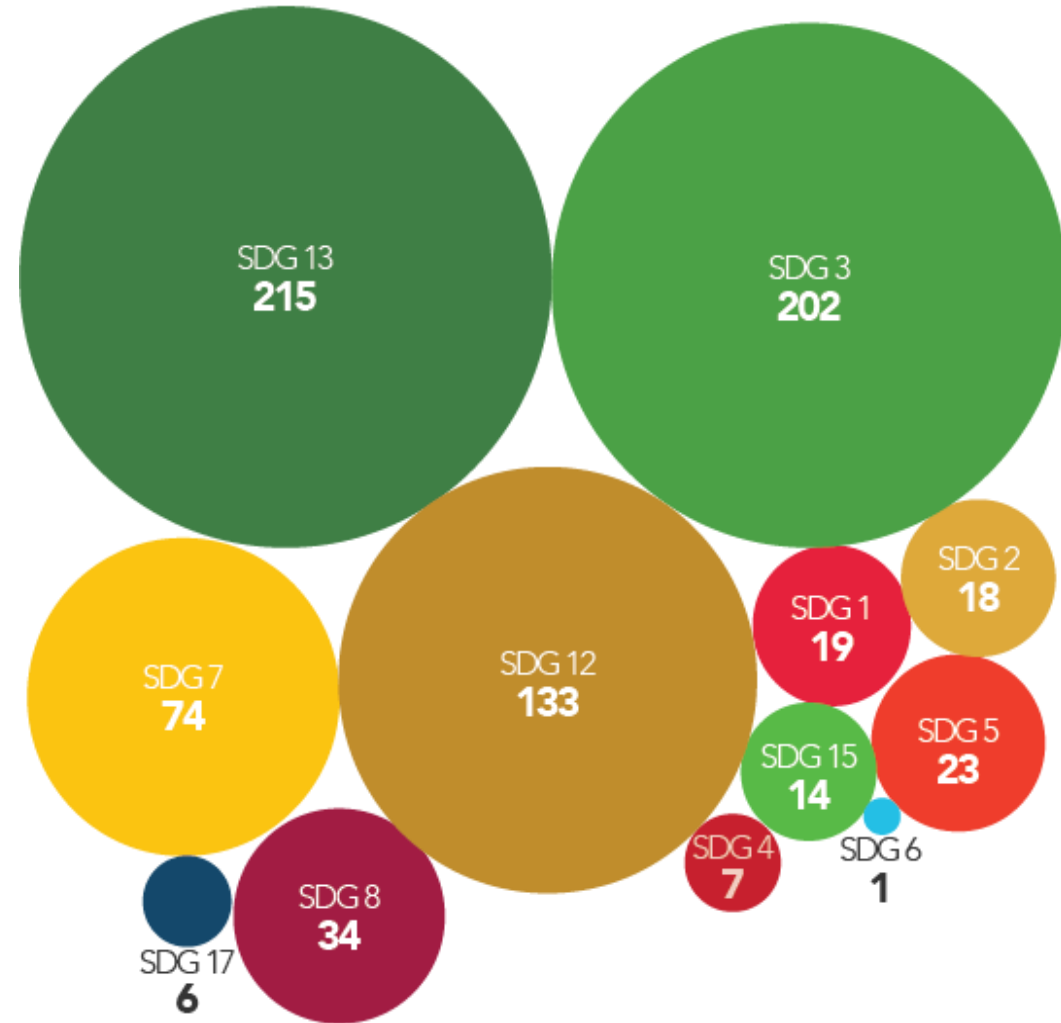
“The most claimed contributions are emission reductions resulting from project activities (SDG 13), improved health (SDG 3), responsible production and consumption (SDG 12), and affordable and clean energy (SDG 7) . Simple output measurements.

Few projects claim under SDG 15 (Life on land) despite clean cookstoves helping in reducing deforestation and forest degradation.

Very few clean cooking projects claim contributions to SDG 5 (Gender equality)

Issue is the cost of measuring and monitoring such contributions.”

## Number of projects claiming impacts for each SDG



# Forward looking agenda for dMRV

- Continual methodology & practice refinements for integrity
  - E.g. contributions to Paris Art6 and VCM
- Tensions between integrity and cost
  - Debates around 100% metered but x% monitored
- Focus on multiple SDGs
  - Finalise BC methodology; health methodology; gender framework; others?
- MECS focus has been on project level but interested in whole dMRV chain
  - Look forward to collaboration with WB/ESMAP through ASCENT and IGP-HF

# Thank you

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*Photo credit: John Sangma*

PV/battery solar cooking in Meghalaya, GHE Impact Ventures

