



Lessons learned – Carbon Finance

AfCEN Tanzania Clean Cooking Strategy Retreat, London, UK

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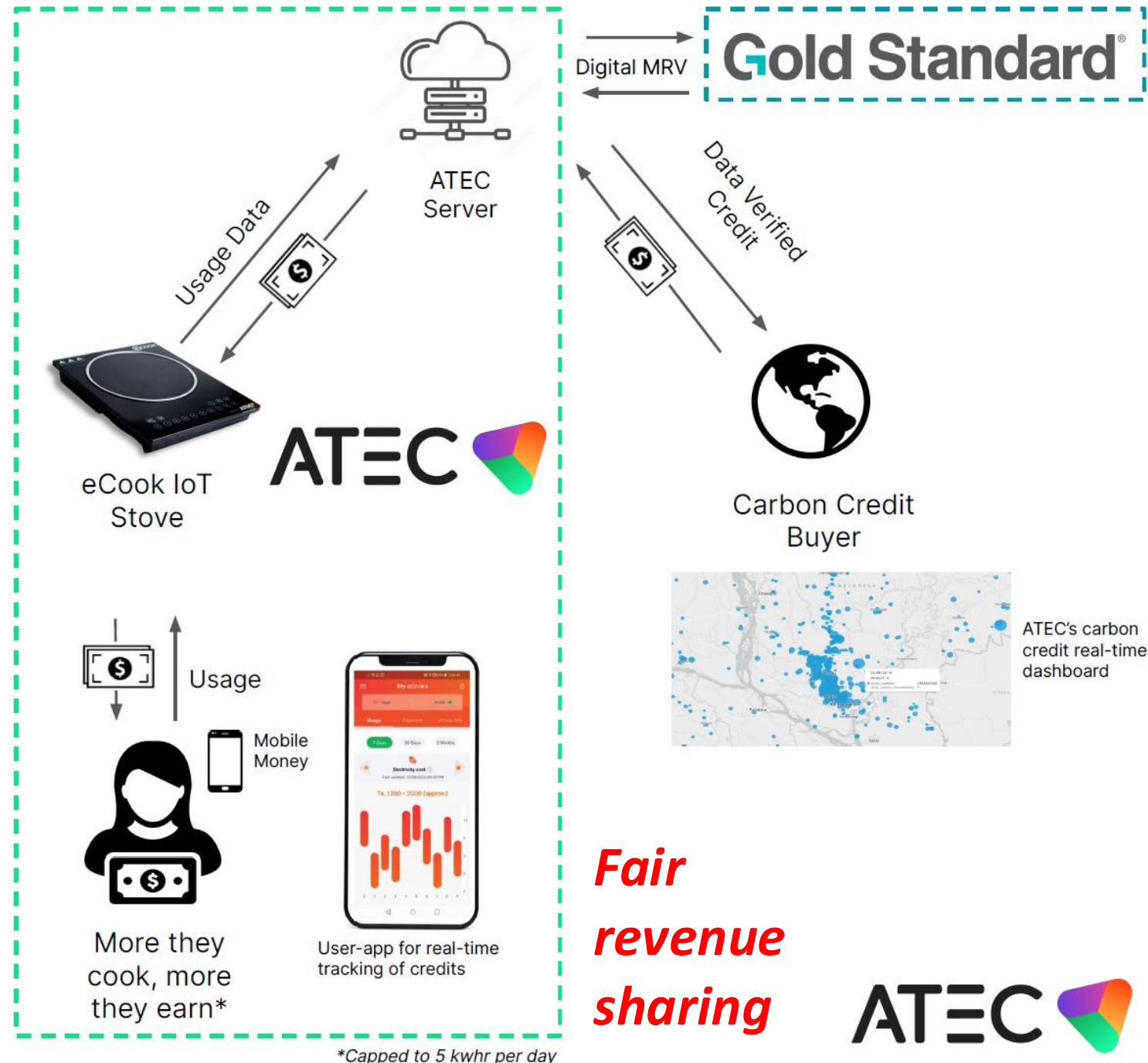


Carbon Finance

- Two types of market:
 - Voluntary vs Article 6 enabled mechanisms
- Differ on:
 - Who is involved
 - Price of carbon typically achieved in the deal
 - Who gets to count the carbon offset in their NDC
- Opportunity for cooking
 - Modern cooking methods can involve IoT to enable direct usage monitoring, leading to highly trusted carbon credits, leading to premium prices

Example Metered Cooking Project (Voluntary market)

- IoT enabled appliance
- Using digital Monitoring, Reporting & Verification methods
- Shift away from surveys and over-crediting → digitalisation
- Accurate carbon saving
- Premium prices (>\$20/tonne)





Paris Agreement and Article 6

Article 6.2 which allows bilateral arrangements between two countries.

- Buyer Country can claim the carbon savings as part of their Nationally Determined Contributions.
- Host Country gets a 'connection fee' but the savings are not part of its work towards its own NDC. This prevents double claiming the savings globally.
- Work to be done in a) setting up a carbon project, and b) including and getting the endorsement of both country governments.

Article 6.4 which is a multi country 'platform' (in process of being set up).

- This should allow people to almost 'trade' carbon savings and the contribution to NDCs on some kind of platform.
- They will likely register their project with endorsement of the relevant carbon saving country government, and then the carbon buying platform will certify the carbon purchase so we know who should register and claim the saving for their NDC.

This is in contrast with the Voluntary market where the certification ensures integrity, but the savings can be claimed as being within the country where the savings are made.

Experience in Other Countries

- A number of deals under Article 6.2 are taking advantage of the high-quality credits from IoT metering and getting good carbon prices.



Buying Country

- Govt approves transfer of carbon credits under Article 6 Internationally Transferred Mitigation Outcomes (ITMOs)
- Places a carbon tax on internal emissions
- Can offset carbon tax by buying carbon credits
- Chooses a project with confirmed certified carbon savings
- Therefore, willing to **pay premium prices** for high-quality credits
- Carbon savings part of Nationally Determined Contribution (NDC) and journey to Net Zero

Project Developer

- Sells equipment worth \$100+ for \$10-15
- Full cost recovery and profit over 6 years
- IoT/smart metering reports live data use
- Uses mobile/data to nudge users into sustained use
- Carbon paid out based on measured use
- Offers extended warranty for 6-year use
- Passes portion of carbon finance to users

Host Country

- Govt approves deal under Article 6 framework
- Govt receives connection fee (~5%)
- Project generates carbon credits
- Current expenditure on wood **pivots to utility**, increasing demand and income (better payback for new connections and access)
- Saves non-renewable biomass consumption
- But charcoal and wood industry might lose jobs (long term)
- Population health and wellbeing improve, gender impacts

End User

- Pays \$10–15 for equipment that should cost \$100
- Transitions from polluting biomass to modern energy cooking
- Saves ~50% on monthly fuel costs
- Likely to save \$500+ over 6 years on monthly cooking fuel
- Receives \$50 in carbon finance via supplier to their phone
- Improved nutrition and health, saves money on health services (long term)
- Local environment has more trees
- Using modern energy for improved well being



Example Article
6.2 deal:

Targets:

- 85,000 households
- 1 Million tonnes carbon
- ~ 20m USD



Buying Country



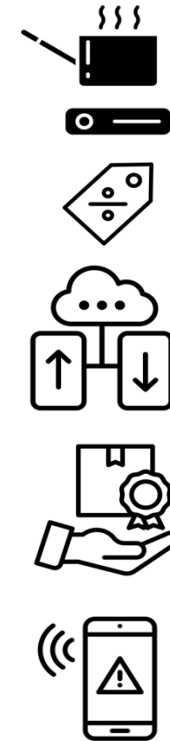
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Win...



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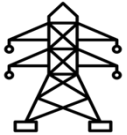
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A country that hosts the carbon saving



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Win, win, win, win



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MECS

Pros and Cons

	Pros	Cons
Voluntary market	Minimal govt involvement so private sector more in control. Host government can claim carbon offset for their NDCs.	Can fetch lower prices than in Article 6 deals.
Article 6	Higher carbon prices typically seen. Host government gets a connection fee.	Host government cannot claim carbon offset for their NDCs. Can be a lengthy process to set up.



5 Actions for Government to take advantage of Article 6 opportunity

- Prioritise forming bilateral agreements and ensure clean cooking is on the positive list.
- Decide on how to share carbon revenue across project stakeholders, including the end users themselves.
- Support and engage private sector stakeholders to provide them the documents they need attracting buying organisations in Buying Countries.
- Link this opportunity to Mission 300 initiatives and last-mile electrification, and to on-bill financing.
- Form a Taskforce of the relevant stakeholders (MoEn, NCMC, REA, TANESCO, VPO) to coordinate pursuing Article 6 carbon finance for clean cooking.