

Exploring the potential for carbon trading in Papua New Guinea's smallholder coffee sector: institutional and governance considerations

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Project overview

- In 2020, Sustineo undertook research as part of DFAT funded project: *Improving rural livelihoods via exploring carbon sequestration and trading opportunities in PNGs coffee industry.*
- The study is assessing the feasibility of establishing a carbon offset scheme in PNG's smallholder coffee industry.
- Sustineo has focused on understanding the governance and institutional requirements.
- Broad perspective on governance and institutions: governance at multiple levels (international, national, subnational scales), as well as the community scale. Institutions are understood to include both organisations and the 'rules of the game', both formal and informal.

Presentation overview

1. Research objectives
2. Research methods
3. Background and context: the smallholder coffee industry and recent history of carbon trading in PNG
4. Key findings
5. Challenges and opportunities



Image source: Curtin University, 2020

Research objectives

To explore:

- the institutional landscape for coffee production and carbon trading in PNG.
- the potential for smallholder coffee growers to engage with carbon trading.
- stakeholders that could contribute to a coordinated approach to coffee production and carbon trading in PNG.



Methods

- Mixed-methods approach:
 - desk assessment
 - semi-structured key informant interviews (KIIs)
 - stakeholder workshop
- 31 KIIs:
 - International stakeholders: voluntary carbon standards, payments for ecoservices (PES) project managers, academics
 - PNG based stakeholders: government, coffee industry stakeholders, civil society, donor and development organisations



Background and context: PNG coffee industry



~400,000 SMALLHOLDER FARMERS PRODUCE



85% OF PNG COFFEE

THEY FACE MANY CHALLENGES:



LACK OF SUPPORT SERVICES



LIMITED CREDIT



HIGH TRANSPORT COSTS



CRIME & SAFETY CONCERNS



3M RELY ON INCOME FROM COFFEE



COFFEE IS HISTORICALLY CONSIDERED A **MEN'S CROP** & **MEN CONTROL THE INCOME** BUT **WOMEN CONTRIBUTE TO THE FARMING**



Carbon trading in PNG

- Since 2007, lots of interest in carbon trading in PNG, following the progression of the REDD+ (Reducing Emissions from Deforestation and forest Degradation) agenda through the UNFCCC.
- The uptake of REDD+ has been largely unsuccessful. Attempts to establish such projects have resulted in land disputes and ‘Carbon Cowboys’ (fraudulent middle-men).
- In response to these challenges (as well as allegations of corruption) the PNG Govt sought to establish a coordinated national approach to carbon trading and recently adopted a moratorium on REDD+ projects that target voluntary carbon markets.
- The Climate Change and Development Authority (CCDA) has registered approximately 200 EOLs for carbon trading projects including from smallholder cash crop producers. However, according to CCDA, there are only 2 currently operating in PNG.

Study findings

- Policy and legislative requirements
- Capacity
- Land tenure
- Gender relations
- Co-benefits



Image source: www.tokpisin.info

Policy, legislative & governance requirements

- This study was interested in: **voluntary** carbon markets rather than **compliance** markets
- Voluntary carbon projects in developing countries typically involve minimal govt engagement. International carbon standards and project managers similarly tended not to emphasise the conditions needed for an enabling policy environment.
- Given voluntary carbon markets involve minimal (if any) state regulation, the governance and compliance requirements of carbon standards (e.g. Gold Standard, Verra, Plan Vivo) are paramount to determine the arrangements for any given project.
- Minimal govt engagement unlikely to be suitable for PNG context. The weak regulatory environment and current moratorium on voluntary REDD+ projects indicates that meaningful engagement may be required to ensure adherence with new regulatory framework.

Capacity in the coffee industry

- Private sector stakeholders increasingly play an important role in certification throughout the coffee supply chain.
- Majority of stakeholders highlighted that coffee farming groups already engaged in the speciality coffee market have greater capacity than those who are not.
- Compared to other export cash crop sectors, coffee has better developed supply chains, more engaged exporters, more established certification schemes.



Image source: Fairtrade ANZ, 2022

Land tenure

- Issues to do with customary land ownership are some of the most significant challenges: e.g. landowner identification, land boundary mapping, gaining the consent of landowners.
- Demonstrating secure land ownership is a requirement to meet carbon sequestration permanency obligations.
- Stakeholders have emphasised the processes for registering customary land in PNG, along with other legal processes for securing formal land titles, are lengthy and unlikely to be successful.
- Opportunities to adopt an approach to land tenure arrangements that is more compatible with the local context: land boundary mapping exercises, MOUs with neighbouring landowners and local authorities, Clan Land Usage Agreements (CLUAs).

Land, gender & coffee in the Highlands

- Coffee ownership is typically very stable: coffee plants last 20–40 years, and many coffee plots in current use are 50–60 years old.
- Land tenure is significantly more individualised compared to other areas of PNG. Coffee blocks are recognised as belonging to individuals and are rarely sold.
- Coffee is a male-dominated cash crop, with the male head of the household typically owning the land and the coffee trees, and subsequently controlling the income from the sale of coffee.
- Potential for perverse gender outcomes: coffee expansion could replace high value vegetable crops that tend to benefit women more than men.
- Coffee certification programs (e.g. Fairtrade ANZ) have made significant progress in improving women's participation.

The importance of co-benefits

- Carbon sequestration in coffee trees is relatively low, which means that a project focused on carbon in coffee alone is unlikely to be viable.
- Growing interest across the carbon trading sector in projects that not only sequester carbon but also improve biodiversity and generate other socio-economic co-benefits.
- ‘Co-benefits’ are the environmental, economic, social, and cultural benefits achieved in addition to carbon sequestration.
- Projects that factor in these co-benefits can attract a greater premium for the carbon credits they generate.
- There are additional carbon and non-carbon benefits from improving the management of existing coffee agroforestry systems (e.g. planting density and shade trees).



Key messages: challenges

- Clear capacity constraints at all levels: from the community level to the highest levels of government.
- The troubled history of REDD+ in PNG is telling of the institutional capacity constraints for governing carbon trading. To date, no projects have been implemented in cash crop sectors.
- The preference of voluntary carbon standards for secure land titles to meet permanency obligations is disconnected from the reality of customary land tenure systems held by many rural smallholders in PNG which are dynamic and fluid.
- The PNG Highlands is a highly patrilineal and patriarchal society with cash crops tending to benefit men more than women.

Key messages: opportunities

- Sustained interest in carbon trading in PNG for over a decade, including growing interest among key stakeholders in the coffee industry.
- Compared to other export cash crop sectors, coffee best lends itself to a potential carbon trading project due to its developed supply chains, engaged exporters, more established certification schemes, and the large number of smallholders who already benefit from coffee.
- Rise of speciality coffee in PNG presents opportunities for synergies with carbon trading due to the need for compliance, extension services and capacity building, and processes of monitoring, verification, and reporting.
- Relative stable and individualised nature of coffee ownership in the Highlands compared to other areas of PNG is better suited to the demands of a carbon trading project.
- Growing interest in co-benefits incentivises a more holistic approach that considers broader development benefits beyond carbon sequestration alone.

Thank you!

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Insetting vs offsetting

- Different models exist for reducing emissions in the coffee industry and earning additional income streams.
- Insetting refers to reducing emissions internally within the supply chain that you are operating in.
- For this project, insetting could mean marketing a carbon neutral coffee rather than producing tradable credits for someone else to offset their emissions with.
- Interviews with international project managers indicate an increasing momentum towards insetting rather than offsetting.





VOLUNTARY CARBON STANDARD

A certification standard that the project must comply with to produce certified carbon credits that can be traded on carbon markets.

PROJECT COORDINATOR



Typically a national or international organisation that is responsible for overseeing the financing, business, and scientific components of the project, including the certification process, as well as the marketing and selling of credits.

In circumstances where the project coordinator is not experienced in the carbon market, a technical advisor can be engaged on a consultancy basis to provide technical oversight for the carbon reporting and verification to meet the carbon standard requirements.



LOCAL WORKING GROUP

A locally based organisation, often an NGO, that is responsible for day-to-day project management, supporting the farmers, and liaising with the project coordinator.



PROJECT OWNERS

The landowners and participating farmers who are typically organised through a cooperative or farmer association.

Project governance model

- Interviews with international project managers and carbon standards have helped to paint a picture of what a ‘typical’ project governance model looks like.