

A literature review of the social performance of carbon-offsetting projects with special reference to Indigenous participation

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EXECUTIVE SUMMARY

This desktop review examines the social performance of carbon-offsetting projects in the Global South with the objective of informing the design of an Indigenous-led carbon project based on the conservation of the Alto Mayo Awajún forests in the Peruvian Amazon as proposed by the FERIAAM, the Federacion Regional Indigena Awajun del Alto Mayo, and Conservational International.

In this review, we adopt the methodology of selecting projects from international databases and registries that meet the following four criteria: (a) projects must be in regions of the Global South and based on the conservation or restoration of natural environments, (b) projects must be founded on community consultation and participation in decision-making, (c) project zones must include the ancestral lands of Indigenous people, and (d) evidence of poverty reduction and contributions to sustainable development must be a reporting requirement.

Part I of the review gives a thumbnail sketch of carbon-offsetting schemes, with a focus on the voluntary schemes that have proliferated since the turn of the millennium. Four schemes are identified that place an emphasis on social performance, termed “enhanced schemes”.

Part II examines projects in the enhanced schemes. Applying the four criteria reduces the approximately 4000 projects in the schemes to seventeen cases. A traffic light system is used to summarise how well each project fares against best practice, together with a rating on Arnstein’s Ladder of Participation.

Part III draws advice for good practice from the cases in the form of eight lessons learned and makes suggestions for the Awajún carbon project.

Our review has obvious limitations. Governmental carbon policies are well-known to constrain the operation of carbon projects within national jurisdictions, to the extent of periodically imposing moratoriums, but we do not enter this complex area. Equally, it is certain that we greatly simplify the socio-political contexts of all the projects that we refer to.

However, the most serious limitation is what we can learn about the projects through their formal validation, verification, and/or monitoring reports. The reports describe project results against matrices of indicators and thus measure *outputs*, but are weak on reporting *outcomes*, failing to detect an egregious scandal in the worst case. Fortunately, researchers from academic institutions, civil society organisations, and independent review panels provide additional information that we have been able to draw upon.

The four schemes do prioritise the involvement of community participants in decision-making, but only one (in CCB Community Gold project) asks project to be “community-led”, and it is only as one of two options. This has forced us to take a wider view of what an Indigenous-led project might look like. We found five projects where predominantly Indigenous communities had significant degrees of control, even if co-management arrangements were in place with NGOs.

Finally, after reviewing our draft report, our Landesa colleagues requested further detail on some matters, and we respond to these in an extra appendix.

John Burton and Julia Keenan, 12 June 2024.

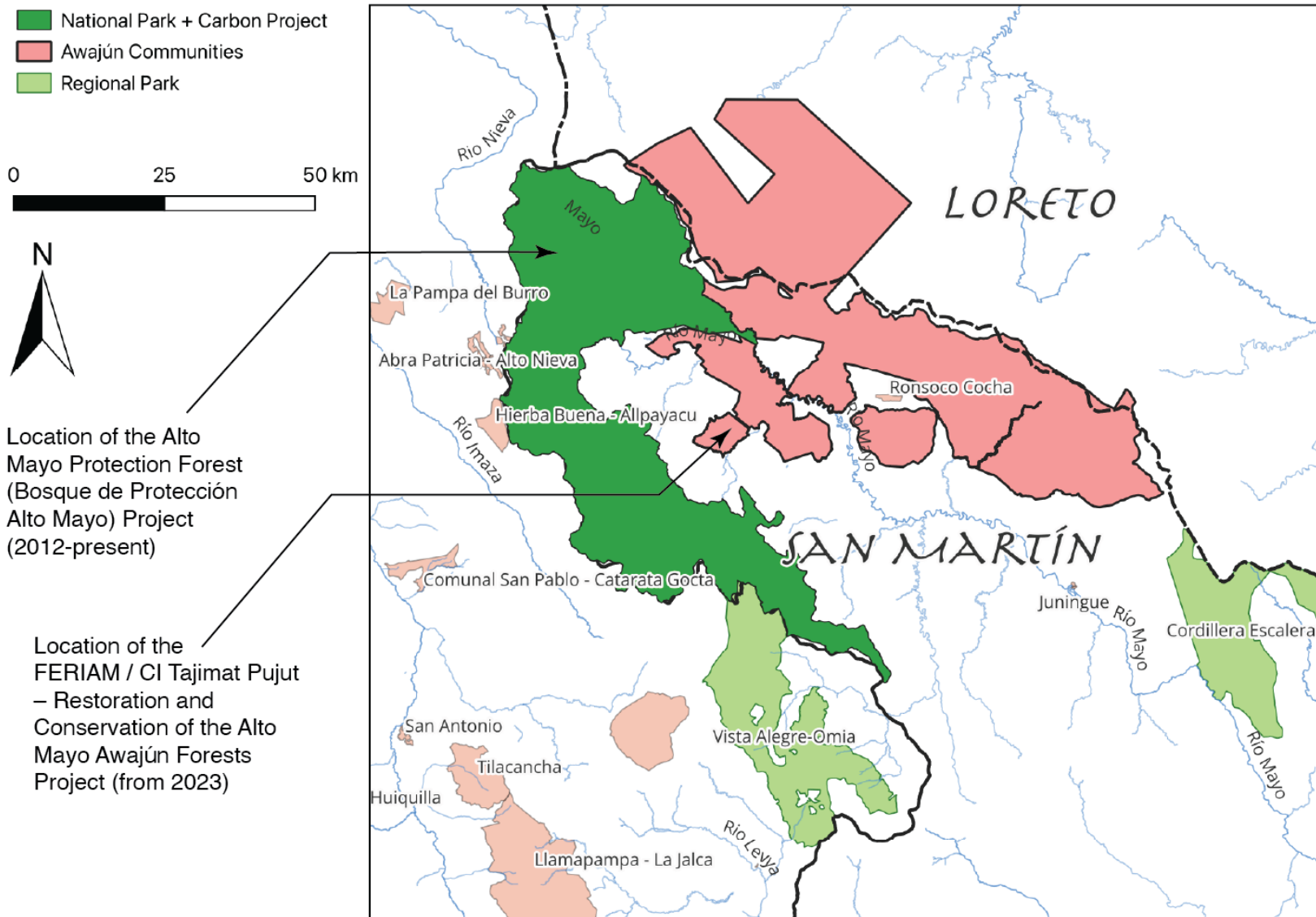
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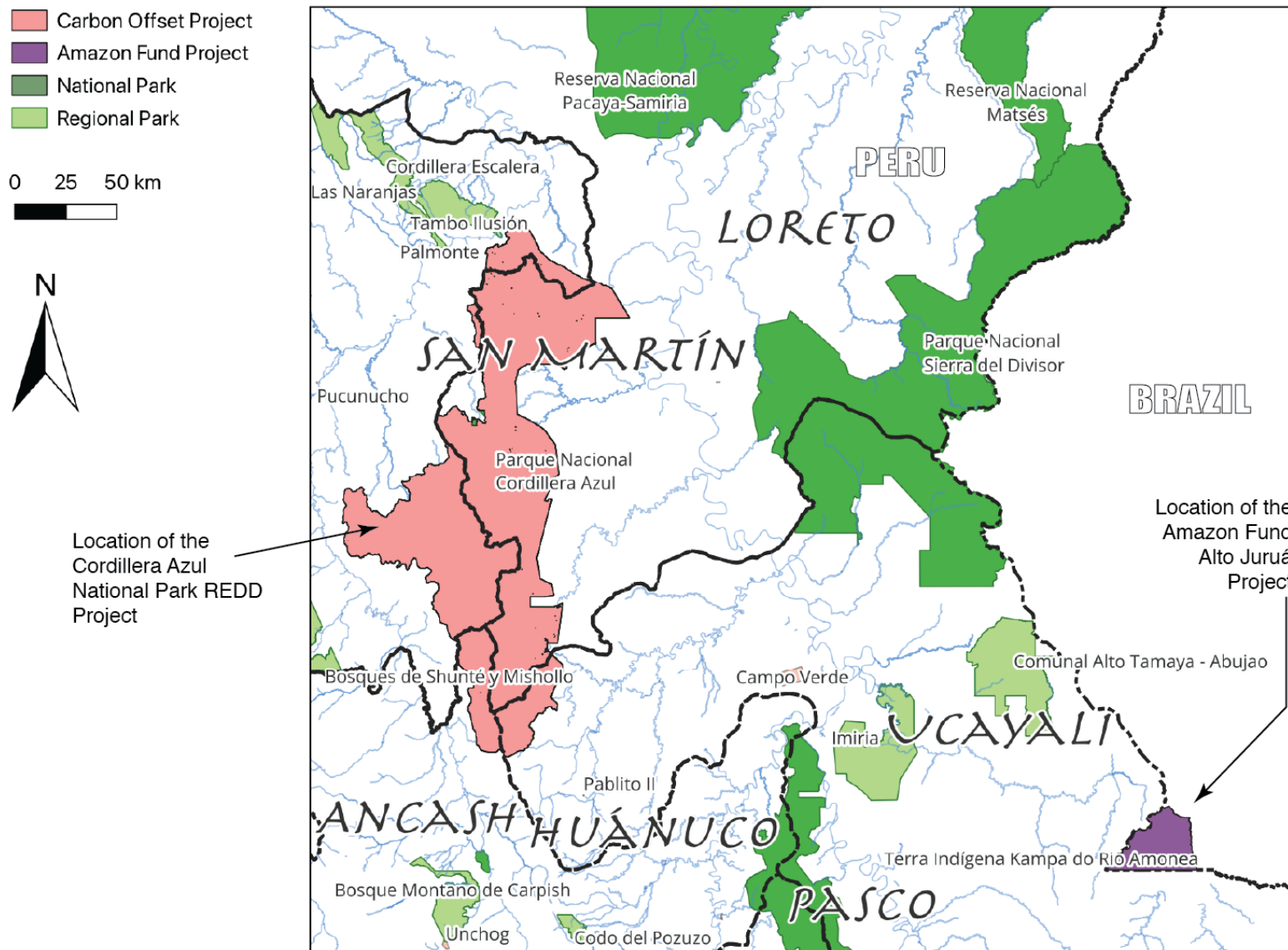
NOTE ON MAP SOURCES

Geospatial data sourced from:

- GEO ANP– Visor de las Áreas Naturales Protegidas (SERNANP Protected Areas Map Viewer) <https://geo.sernanp.gob.pe/visorsernanp/>.
- KML project areas files published on the Verra registry <https://registry.terra.org/>.
- OpenStreetMap <https://www.openstreetmap.org> and other public domain sources.



Map 1 Location of the Alto Mayo Protection Forest and Alto Mayo Awajún projects.



Map 2 Location of the Cordillera Azul and Alto Juruá projects.

PART I

GLOBAL OVERVIEW OF COMMUNITY-BASED CARBON PROJECTS

What schemes exist and how long they have been around.

The setting

It is a global conundrum that some “40% of all terrestrial protected areas and ecologically intact landscapes” are on Indigenous lands (Garnett et al., 2018) and that tropical forests, almost universally the ancestral domains of Indigenous people, retain as much as 55% of global terrestrial carbon stocks (Sze et al., 2021), yet only in some countries are the rights of Indigenous people given the effective legal protection that might help them arrest unregulated exploitation and irresponsible deforestation (UNPFII, 2021). In the global effort to decarbonise, various forms of green financing mechanisms (Calí Tzay, 2023) have been seen as a means of killing two birds with one stone – on the one hand, strengthening Indigenous tenure rights and supporting their guardianship of tropical forests and, on the other, bringing down global carbon emissions in line with the United Nations Framework Convention on Climate Change (UNFCCC) targets.

Governmental and private sector advocates have continued to express optimism at the potential of global carbon trading. However, scientific reviews have expressed scepticism at the limited emissions reductions achieved in practice (cf. Erickson et al., 2014; Philippa, 2022; Guizar-Coutiño et al., 2022; West et al., 2023; Macintosh et al., 2024) and collectivities of Indigenous peoples have signed calls for global moratoria on forest carbon trading over the marginalisation of Indigenous rights (Riamit et al., 2023; Indigenous Environmental Network, 2024).

For its part, the United Nations Permanent Forum on Indigenous Issues (UNPFII) noted in advance of its 2024 annual meeting what is in practice a meagre flow of climate funds to Indigenous communities: “funding for their forest tenure rights and management from 2011 to 2020 was less than 1 per cent of international climate aid, with actual receipts likely as low as 0.13 per cent” (UNPFII, 2024, April 15). During the meeting, the UNPFII Special Rapporteur also added his voice for a moratorium on carbon markets (Lang, 2024, April 23).

This, then, is the confusing background behind carbon trading activities which take place on Indigenous lands, whether or not Indigenous people are significantly involved in managing how the activities operate.

Thumbnail sketch of carbon projects

A carbon offsetting or carbon crediting project, henceforth “carbon project”, is a trading mechanism where individuals, businesses or governments can compensate for (“offset”) their local carbon emissions by paying to have emissions reduced at another location. It contrasts with actions to directly reduce emissions through more efficient industrial processes, switching locally to renewable energy and the like.

An intergovernmental version is REDD+, which evolved from 2005¹ as a mechanism for UNFCCC government parties to address deforestation and forest degradation. An initial UNFCCC scheme to allow international trade in carbon offset was the Clean Development Mechanism (CDM), which officially ran from 2008 to 2020. This is now being replaced by the Article 6 mechanisms of the 2015 Paris Agreement, which have introduced Internationally Transferred Mitigation Outcomes (ITMOs), with fewer loopholes than the now-deprecated CDM.

Non-governmental carbon projects are typically run on a local scale, for example by the custodians of rangelands, forested areas or national parks. A recent affirmation of the intent is the 2021 Glasgow Leaders' Declaration on Forests and Land Use, which extended conservation and restoration efforts to "all forests and other terrestrial ecosystems".²

Most of the financing for REDD+ comes from multilateral aid, typically assisted by UN-REDD, multi-partner aid agreements, from the Green Climate Fund (GCF) set up at COP16 in 2010, and from older funds like the Global Environment Facility (GEF). UN-REDD acts as a co-ordinator and has assisted countries in setting up national entry points to catalyse REDD+ financing. For example, Peru has a multi-partner agreement with the governments of Germany and Norway, and UN-REDD has been supporting the Peruvian Ministry of the Environment in the design of a national financing mechanism (UN-REDD, 2022).

One of the oldest mechanisms of this kind, founded in 2008, is the Amazon Fund (Portuguese: Fundo Amazônia), with funding contingent on reductions in forest clearance. The largest historical contributor has been Norway, with lesser inputs from Germany and the Brazilian state-owned petroleum company, Petrobras. Germany and Norway suspended payments in 2019 over increases in deforestation but resumed them in 2022. Other contributors include Switzerland, the United States, and the United Kingdom.

Agreements signed with OECD countries would seem the exclusive domain of national departments, subnational administrations and government research institutions in rainforest countries, but this is not universal. In addition to projects managed by state organisations, the Amazon Fund has underwritten a range of Indigenous-led projects. Six completed ones were evaluated in 2022 (Gomes, Baniwa & Caldas, 2022a).

Where are carbon projects being undertaken in tropical forest regions?

There are numerous efforts to report on carbon projects globally, which give an impression of intense activity around the world (Appendix B). The International Database on REDD+ projects (ID-RECCO) is heavily focussed on the three main tropical forest regions which account 95.4% of retired project credits in the database, with a breakdown of Central and South America, 59.3%, Sub-Saharan Africa, 20.3%, and Southeast Asia, 20.5%. The Berkeley Voluntary Registry Offsets Database has information on carbon projects globally (So, Haya & Elias, 2023). Restricting the scope to projects classed by Berkeley as "Forestry and Land Use" (1481 projects), then by the credits issued for "Afforestation & Reforestation", "Improved Forest Management", and "REDD+" shows 428 projects in tropical forest regions (Figure 1).

¹ Originally from a submission to COP11 by the governments of Papua New Guinea and Costa Rica (2005).

² <https://web.archive.nationalarchives.gov.uk/ukgwa/20230418175226/https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>.

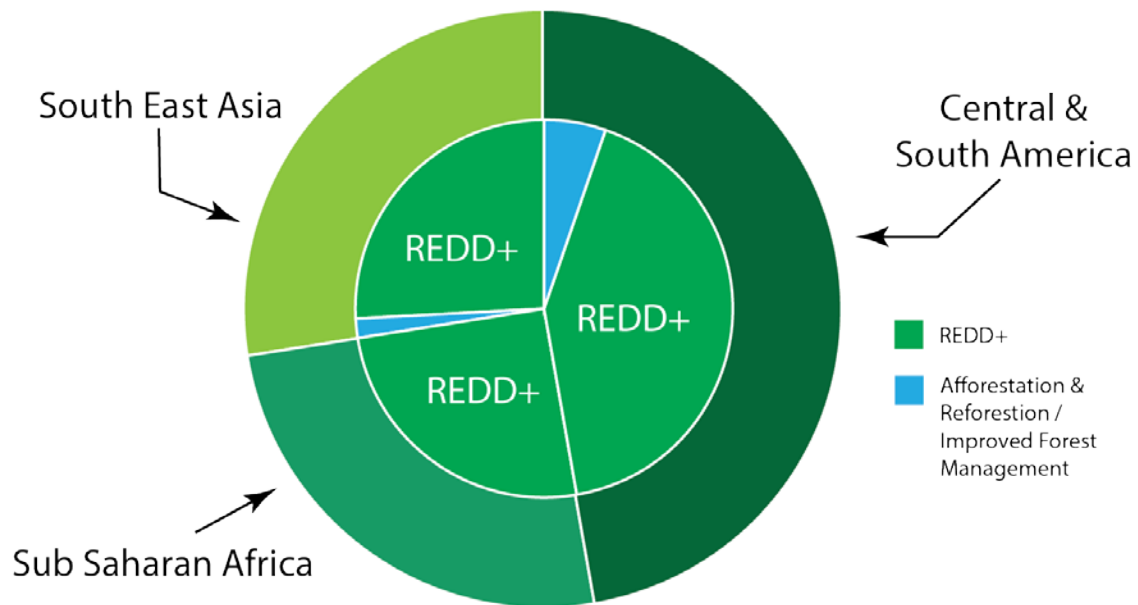


Figure 1. Credit issuances by type in the voluntary carbon markets: three main tropical forest regions (428 projects, 1996-present).

Graphic: author. Data source: So, Haya & Elias (2023).

The breakdown is half (47.3%) from Central and South America, and a quarter each from Sub-Saharan Africa (27.3%) and Southeast Asia (25.4%). However, no less than 98.5% the carbon credits concerned were issued as voluntary credits in Verra's basic VCS scheme which pays limited attention to community issues (see below).

The UNFCCC's Clean Development Mechanism

The Clean Development Mechanism (CDM) was a UN-run carbon offset scheme created by the 1997 UNFCCC Kyoto Protocol. It came into effect in 2005 and allowed for Annex I (industrialised) countries to buy Certified Emission Reductions (CERs) created in Non-Annex I (developing) countries in two commitment periods: 2008-2012 and 2012-2020.

The CDM was only concerned with biophysical evaluations, delegating the verification of emission-reduction projects to "Designated Operational Entities" (DOEs). As pointed out by Erickson et al. (2014), this flawed scheme had methodological biases toward over-crediting. At the time of the Kyoto conference in 1997, China was classed with the Non-Annex I countries. It was coming to the end of the transitional era of Deng Xiaoping and had a GDP approximately 1/9th of that of the United States. But by the end of the first CDM commitment period in 2012, China was fully industrialised and had a GDP approximately one half of that of the United States. In the rapid phase of economic growth after the death of Deng, hydropower schemes in China received heavy government support but at the same time were eligible for CERs, even though most would have been built without CDM incentives. Unsurprisingly, it took more than half of the CERs issued globally during the first commitment period (Figure 2). In the second commitment period, China's share of the total fell back to 35%, but the spread was similar. The higher, 19.7% global share of Central and South America in the second period was almost entirely (98.1%) taken up by renewable energy projects.

Afforestation and reforestation projects were among the approved activities under CDM rules (UNFCCC, 2013), but the rules excluded many key elements of REDD+ programs, including improved forest management, better livelihood practices, strengthening land tenure for Indigenous peoples and introducing effective measures to exclude land grabbers. Accordingly, “forest-based” carbon projects, which in reality amounted to no more than tree-planting in long-standing grasslands, were rare globally, and in Central and South America, accounted for 5.6% and 1.7% of that region’s CER earnings, across sixteen countries, in the two commitment periods. Around 60% of the CERs issued in Central and South America were earned by Brazil, the biggest contributions coming from methane recovery from landfill, biogas and hydropower (Frangetto et al., 2019).

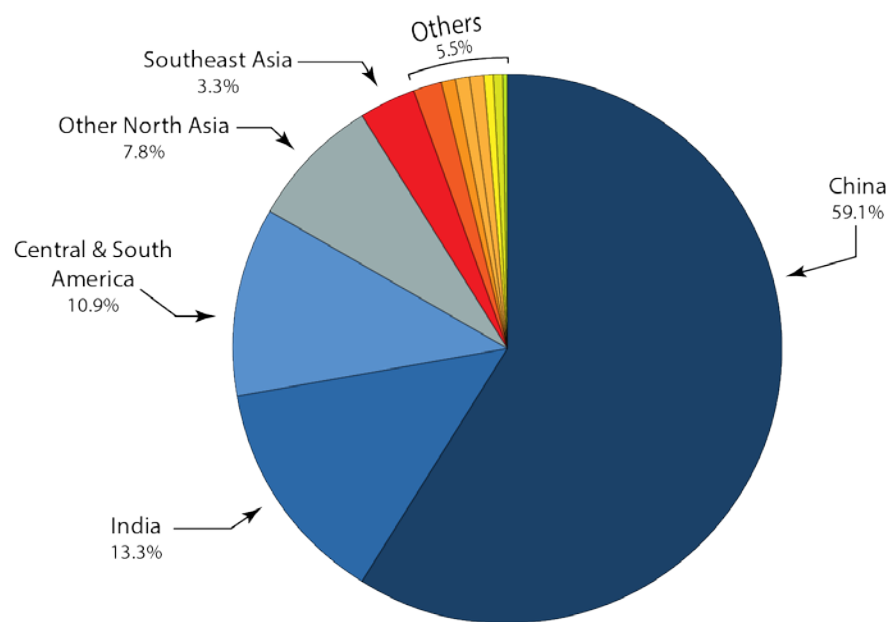


Figure 2. Proportion of Certified Emission Reduction units issued by region in CP1 of the CDM, 2008-2012 (3,717 projects globally).

Graphic: author. Data source: Tsukui et al.(2024).

Peru’s 2.9% share of Central and South America’s CERs, 2008-2012, was largely (80.9%) made up of renewable energy projects (mostly hydropower) and its tiny 1.8% share, 2012-2020, was 100% made up of renewable energy projects (Tsukui et al., 2024). None came in either period from afforestation and reforestation. While the projects that Peru did engage in through the CDM may have been useful to meet broader national development goals, an analysis of National Household Survey data showed they had no effect on rural employment or poverty reduction (Pécastaing et al., 2018).

At the 2010 UNFCCC meeting, seven safeguards, known as the “Cancun safeguards”, were made mandatory for REDD+ activities in order to eliminate some of the loopholes identified in UN mechanisms, like the CDM, that had operated to that date. Four are technical in nature, while three directly concern the required approach to Indigenous peoples and local communities (*italicised*):³

³ <https://www.un-redd.org/glossary/cancun-safeguards>.

- (a) That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- (c) *Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;*
- (d) *The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the [REDD+] actions;*
- (e) *That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the [REDD+] actions are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;*
- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.

Thus, while the CDM is not in itself a model to look to for sustainable development outcomes in rainforest regions in the global south, the Cancun safeguards are a lasting contribution of this era. They have been carried over into voluntary carbon crediting schemes, notably into the Climate, Community & Biodiversity Standards.

As noted, the CDM system is now being retired but the safeguards will stay under the Paris Article 6 mechanisms. The 2023 UAE Consensus agreed that Article 5.2 of the Paris Agreement should be fully implemented, that is, future schemes should follow UNFCCC guidelines related to REDD+ and should respect “the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries” (UNFCCC, 2016; CfrN, 2023).

Voluntary schemes

Parallel to the UN mechanisms, many voluntary (private sector) carbon crediting organisations exist. The International Carbon Reduction and Offset Alliance (ICROA),⁴ a key carbon trade industry body, says that those given ICROA accreditation may only transact credits issued by the schemes listed in Table 1, and we take these, heuristically, as a “best” list of schemes.

The UNFCCC Clean Development Mechanism, included in Table 1, already discussed, will not be considered further.

Five schemes are restricted to projects in North America and Australia (tan fill) and may also be set aside. Six are post-Paris Agreement registries (light blue fill) and are either specialised in nature or will potentially have a relevant portfolio of projects soon but have not issued credits yet.

⁴ <https://icroa.org/>.

Among them, Puro Earth is a Helsinki-based organisation that specialises in biochar projects.⁵ Of the project credits earned to date, 37.7% come from projects in Finland, Norway and Sweden. Its activities in developing countries (18.8% of credits) are limited to two biochar projects, in Brazil and Cameroon, that use coffee husks as a feedstock, one in Brazil that uses Eucalyptus woodchips, and one in Bolivia that uses sawmill waste. It does not currently deal with Indigenous people or work in rainforested areas.

Table 1. Carbon crediting schemes endorsed by the International Carbon Reduction and Offset Alliance.

Source: ICROA *Code of Best Practice* v2.5 (2024).

Registry	Projects active since	Regions of operation	Area of specialism
American Carbon Registry	1996	North America	Industrial emissions reduction
Plan Vivo	1997	Global	REDD+, conservation, social and economic development, all SDGs
Verra (Verified Carbon Standard)	2002	Global	General registry, emissions reduction
UNFCCC Clean Development Mechanism (CDM)	2008	Global South (Non-Annex 1 countries)	Emissions reduction with social safeguards
British Columbia Offset Program	2008	British Columbia	Provincial carbon tax mechanism
Climate Action Reserve	2009	North America	Emissions reduction
Australian Carbon Credit Unit scheme	2012	Australia	Eligible activities determined by the Clean Energy Regulator (Australia)
Gold Standard	2014	Global	Emissions, conservation, social and economic development
City Forest Credits	2015	United States	Tree planting in US cities
Cercarbono	2018	Colombia Global from 2021	Forestry, renewable energy
Puro Earth	2019	Scandinavia, Brazil, Bolivia, Cameroon	Biochar
Social Carbon (conditionally endorsed)	2020	Canada, India, Zambia, Brazil ...	Conservation, social and economic development
Architecture for REDD+ Transactions	2022	Global	REDD+
Global Carbon Council	2023	India, Egypt, China, Turkey, Vietnam ...	Renewable energy for CORSIA eligibility
Biocarbon Standard	2024	Global	Emissions reduction, biodiversity

☐ Operates outside LDCs
 ☐ Operates in LDCs
 ☐ Superseded UN scheme
 ☐ Recent scheme, few projects

Social Carbon was developed in the 2000s by Ecologica Institute, a civil society organisation in Brazil, but was not aligned with one of the main standards. Since 2022, it has been managed by the Social Carbon Foundation, a UK charity.⁶ Its registry⁷ shows that it now has ten projects in six countries: Brazil, South Africa, Zambia, USA, Canada and India. However, only one, in the USA, has had a credit issuance so far (on 9 April 2024).

These very recent schemes may be set aside.

This leaves three crediting systems (light green fill) with relevance to nations in the Global South and, in particular, to regions with tropical forests: Plan Vivo, Verra's Verified Carbon Standard (VCS), and the Gold Standard.

⁵ <https://puro.earth>.

⁶ <https://www.socialcarbon.org>.

⁷ https://wilder.earth/social_carbon.

Of these, the Verified Carbon Standard (VCS) has achieved international recognition, but it is geared towards basic verification of emissions reduction (Verra, 2023, December 11) rather than taking a broader view of community development.

An issue that Verra has yet to resolve is the doubt cast on its reputation by a series of 2023 articles in *The Guardian* and *Die Zeit*, based on their own work and that of a range of scientific authors (e.g. Guizar-Coutiño et al., 2022; West et al., 2023). The articles claim that 90% of Verra's offset credits are "worthless" because pre-project threats to forests were overstated and only in a few cases was there solid evidence of claimed deforestation reductions (Greenfield, 2023a).

The VCS focus on emissions reduction means that projects earning just Verified Carbon Units (VCUs) will not be considered further. This by no means discards projects registered with Verra, because two add-on standards that allow "labelled" VCUs to be issued are highly relevant.

The first comprises the Climate, Community & Biodiversity Standards (CCBS), developed in stages from 2005 to 2013, then administered by Verra. These add an emphasis on climate change, support for local communities, and biodiversity conservation to a standard carbon project, but do not give rise to notional "CCB credits". Instead, "CCB-labelled VCUs" are issued. That is, a project must first be validated under the Verified Carbon Standard and re-validated under the CCB standards. In this review, we will only consider projects that conform to the third edition of the CCB standards (CCBA, 2013; Verra, 2017) and only those that conform to the Community Gold validation level, which carries the *requirement* that a project be (a) community-led OR "explicitly pro-poor", and (b) able to demonstrate positive benefits for the well-being of women. This is explained in more detail in Appendix C.

The second is the newer Sustainable Development Verified Impact Standard, or VISTA standard, which asks proponents to show how a project will contribute to the achievement of Sustainable Development Goal (SDG) targets (Verra, 2019). The same thing applies: a project is first validated under the Verified Carbon Standard, then re-validated under the VISTA standard to earn "VISTA-labelled VCUs".

Like Social Carbon projects, no VISTA projects have yet been validated in the Global South but because several that are under consideration have become *causes célèbres* for historical reasons, we will continue to examine them.

All four of Plan Vivo, the Gold Standard, CCBS and VISTA place an emphasis on social performance as well as environmental effectiveness. As such, they can be termed "enhanced schemes". We examine projects in these schemes where Indigenous people are present in the project areas in the next section.

The Awajún carbon project

Finally, the "Forest Conservation, Land Stewardship and Local Economic Development in Awajun Indigenous Communities of the Alto Mayo Landscape" project (Landesa, 2023), or Awajún carbon project, which this review aims to inform, is currently under development. It is listed on the VCS registry as Project 4749 and with the registry title "Tajimat Pujut, Restauración y conservación de los bosques Awajún del Alto Mayo" ("Tajimat Pujut, Restoration and Conservation of the Alto Mayo Awajún Forests"). The proponent is FERIAM, the Federación Regional Indígena Awajun del Alto Mayo (Regional Awajun Indigenous Federation of Alto Mayo) and the co-proponent, the Conservational International Foundation (Conservational International, 2023).

FERIAAM represents thirteen Indigenous communities in the department of San Martín, and three in the department of Loreto (Map 1). The communities are recognised and have received territorial titles under Peru's Law of Native Communities and Agricultural Development of Rainforest and High-Rainforest Regions,⁸ which makes them the owners of the carbon rights. Preliminary documentation has been prepared by Conservation International (2023).

We make suggestions about the design and operation of the project in Part III.

Other notable projects in Amazonia

Because of their proximity to the Awajún carbon project, at least five other projects are relevant to this review. Two are in national parks, supposedly empty of people, and have been designed as CCB v2 Biodiversity Gold projects, but because of the lack of resident Indigenous owners they do not fit our criteria for full evaluation. One project was abandoned, one had a fixed term and has ended, and the last is not a carbon-crediting project.

Alto Mayo

Led by Conservation International,⁹ the Alto Mayo project, a CCB v2 Biodiversity Gold project, is located in the 182,000 hectare Alto Mayo Protection Forest (Bosque de Protección Alto Mayo). This is part of the broader Alto Mayo landscape in the Peruvian Amazon where Awajún communities live, and immediately to the west of the Tajimat Pujut Awajún carbon project (Map 1). The Protection Forest was declared in 1987 and was meant to be off-limits to human habitation. However, in 2008 when Conservation International entered into an agreement with SERNANP, Peru's National Service of Protected Areas (Servicio Nacional de Áreas Naturales Protegidas), some thousands of families had already moved into the park, and were clearing forest and planting coffee on small farms.

The Alto Mayo project's reputation lies with avoiding more deforestation, the deployment of novel instrumentation for forest monitoring (e.g. Wright et al., 2018), and for which it has earned around USD 30 million in VCU credits since 2012, much of it bought by Disney, Microsoft and others.

As an object lesson in how to run a carbon project, for which Alto Mayo is labelled a "flagship scheme" by *The Guardian*, it does have some pointers, such as the fact that about half the families in the park have signed agreements with SERNANP to grow coffee sustainably and engage in less land-intensive livelihood activities.

However, human rights concerns have been raised repeatedly over reports of other park residents, notably members of village self-defence groups or *rondas campesinas*, being forced from their homes by park guards, amid a continued simmering of mid-level conflict. At one point in 2018, project staff had to stop work in the area (Midler & Quigley, 2020; Greenfield, 2023b).

⁸ <https://www.pj.gob.pe/wps/wcm/connect/fbb50c804c7e5783adf4efe93f7fa794/Decreto+Ley+22175+Ley+de+Comunidades+Nativas+y+desarrollo+agrario+de+las+regiones+de+la+Selva+y+Ceja+de+S elva.pdf>.

⁹ <https://www.conservation.org/projects/alto-mayo-carbon-project>.

Suruí Forest Carbon Project

The Suruí Forest Carbon Project has a claim as the world's first Indigenous-led conservation project financed through the sale of carbon offsets, starting in 2009 but abandoned after illegal miners overran the project area from 2015 (Verra, 2018). In a post-project review, Zwick claims that the project did reduce deforestation up to this point (Zwick, 2019).

Cordillera Azul National Park REDD Project.

The Cordillera Azul National Park was established in 2001 (Map 2). The carbon-offsetting project is a CCB v2 Biodiversity Gold project. No human communities are officially located within the park boundaries, though the activities of some 180,000 people estimated to live in the buffer zone around the park raise the risk of deforestation around the edges of the park. In April 2023, Indigenous Kichwa (Quechua) people won a legal ruling that the park had been created without their consent, violating their rights. The ruling was reversed within days, creating a standoff between the Kichwa and the park authority, SERNANP (Davey, 2023, June 14). Later in 2023, the president of the Federation of Indigenous Peoples of Bajo Huallaga San Martín said his organisation was willing to resume dialog with SERNANP, at the same time listing grievances of the Kichwa that had yet to be resolved (Ideeleradio, 2023, December 15).

The project has earned CCB-labelled VCU credits since its inception in 2013.

The Amazon Fund Alto Juruá Project

The 87,000 hectare Alto Juruá Project in the Brazilian state of Acre on the border with Peru (Map 2), operated by the Associação Asháninka do Rio Amônia (APIWTXA), was the beneficiary of USD 1.3 million from the international Amazon Fund. The Asháninka are a forest people, most of whom live in Peru, while a minority of some 2,500 people live in Brazil. The project, which was not a carbon-offsetting project, had a fixed term, 2015-2018, and involved partnerships between APIWTXA and University College London and a local non-profit Indigenous advocacy organisation, the Comissão Pró-Índio do Acre (CPI-Acre). The project supported various activities to do with sustainable land management, the planting of fruit trees etc, and it did, according to the project evaluators, achieve a significant reduction in the rate of forest clearance. APIWTXA was a UNDP Equator Prize winner in 2017, cited for participatory mapping of Indigenous lands and sustainable management of the forest (UNDP, 2022).

Ruiz-Pérez et al. (2005) did a livelihoods study fifteen years after the broader 538,000 hectare Alto Juruá Extractive Reserve (Reserva Extrativista do Alto Juruá) was created in 1990, and which the Alto Juruá Project area adjoins. They found that deforestation had doubled since the Reserve was established even though the population had not significantly increased. Ferreira et al. (2020) reviewed livelihoods more recently and say that after a further fifteen years there is little new information on how resource use may have changed over time.

Gomes et al. (2022b) did an ex post evaluation after the conclusion of the Alto Juruá Project in the adjoining area. Unfortunately, the post-project period, 2019-2022, coincided with the presidential term of Jair Bolsonaro, and they say forest clearance increased to a rate higher than seen before the project started.

Continuing work by Cool Earth among the Awajún and Asháninka

Cool Earth is an UK-headquartered NGO that works with Indigenous communities on rainforest protection with climate-related and conservation goals. Its website shows that it currently works with both Awajún¹⁰ and Asháninka¹¹ people. Unfortunately, beyond simplified web content and YouTube videos, information on the precise nature of what it does is limited. In its annual impact report, it says it raised GBP 3.86 million in 2022 and spent GBP 1.7 million on programs, including GBP 858,000 in Amazonia (Cool Earth, 2023).

The entry for the Cool Earth Asháninka Project on the International Database on REDD+ projects and programs Linking Economics, Carbon and Communities (ID-RECCO), indicates that it started in 2010 but “no data” is shown against its expected annual carbon credits, its methodology, type of accounting baseline, certification status, when it has earned carbon credits, or whether the one transaction listed has been confirmed on the official carbon register.¹²

However, if it once participated in the REDD+ system, it does not now. In its online FAQs it says “Protecting rainforest with Cool Earth does not create a carbon offset ... Whilst Cool Earth’s primary objective is to mitigate climate change through avoided deforestation, we don’t translate this into a price per tonne of carbon”.¹³ It provides no evidence that any of its schemes do what it says they do, for example by publishing environmental studies to back up its claims to prevent forest clearance or demonstrating how its “no strings” payments to communities aids in conservation.

We do not consider these projects further.

¹⁰ <https://www.coolearth.org/partnership/awajun/>.

¹¹ <https://www.coolearth.org/partnership/ashaninka/>.

¹² <https://www.reddprojectsdatabase.org/view/project.php?id=225>.

¹³ <https://www.coolearth.org/contact-us/faq/>.

PART II

SUMMARY OF EXPERIENCES: PROJECTS IN THE ENHANCED SCHEMES

Evidence of projects that are conducted in or near the territories of Indigenous peoples in schemes that are required to promote community development.

Introduction

Of the many thousands of projects globally that are eligible for some kind of carbon offset crediting, just under 4,000 are listed by the “enhanced schemes” that emphasise social performance. In this section we use their registries to filter that number to projects that:

- (a) Are carried out in regions of the Global South and based on the conservation or restoration of natural environments.
- (b) Are in the parts of the schemes that require the reporting of the nature of community consultation and participation in decision-making.
- (c) Self-assess that the project zone is at least partly on the ancestral land of Indigenous people.
- (d) Are in the parts of the schemes that require the reporting of evidence of poverty reduction and contributions to sustainable development.

Arnstein’s Ladder of Participation

For the purposes of examining the nature of free, prior and informed consent (FPIC) in projects, it is useful to consider Arnstein’s Ladder of Participation (Figure 3).

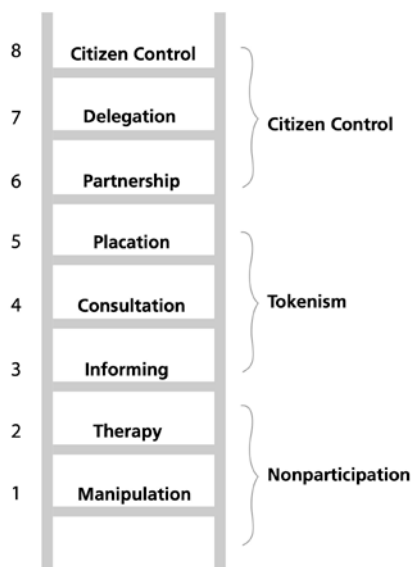


Figure 3. Arnstein’s Ladder of Participation.

Rungs 1 & 2 “... describe levels of non-participation that have been contrived by some to substitute for genuine participation”.

Rungs 3 & 4 “... progress to levels of “tokenism” that allow the have-nots to hear and to have a voice ... when they are proffered by powerholders as the total extent of participation, citizens may indeed hear and be heard. But under these conditions they lack the power to ensure that their views will be heeded by the powerful” Rung 5 is “... a higher level tokenism because the ground rules allow have-nots to advise, but retain for the powerholders the continued right to decide”.

On Rung 6 “Citizens can enter into a partnership that enables them to negotiate and engage in trade-offs with traditional powerholders”.

Rungs 7 & 8 “... have-not citizens obtain the majority of decision-making seats, or full managerial power”.

Source: Arnstein, 1969, p. 217, and

<https://www.citizenshandbook.org/arnsteinsladder.html>.

Carbon projects where community participation is limited to “information sessions” or “public meetings”, but little else, are not of interest. Projects where the proponents speak of “our partners” *may* be of interest, but projects that can be classified as being on Rungs 7 and 8 of Arnstein’s Ladder are really what we seek. At Rung 7, Delegated Power, “citizens hold the significant cards” (Arnstein, 1969, p. 222) though they may not be able to control policies beyond their immediate jurisdiction. Translated into Indigenous participation in a

carbon project, it would mean management control of the project, but deference to legislation governing the formation of associations, governing the trading of credits, and international treaty commitments such as are found in the UNFCCC. At Rung 8, Citizen Control, “participants ... can govern a program or an institution, be in full charge of policy and managerial aspects, and be able to negotiate the conditions under which ‘outsiders’ may change them”. Translated as before, this would mean management control of the project and sovereignty over credit trading and even the terms of how the managing body is formed and what laws it must obey. In the real world, few entities have that degree of recognition, so the difference between the top two rungs is arbitrary. Either level of participation in the governance of a carbon project by Indigenous people merits it being termed “Indigenous-led”.

Arnstein’s ladder is useful as a tool to look for lessons for the generic design of a project that places the interests of Indigenous people at its centre. We look at where projects are situated on Arnstein’s Ladder in the summary below (Table 5).

A caution is that the ladder is limited to participation. It says nothing about the quality of governance and there must also be a wariness that high scores do not conceal elite capture or other forms of organisational dysfunction.

Reporting of whether Indigenous people are in the project area

We do not use strict criteria to identify whether Indigenous people reside in a project area. If the Project Design Document (PDD) says “no Indigenous people reside in the project zone”, we set the project aside even if it is likely to be untrue. Our reasoning is that if this is stated, then it is obvious the proponents will not be designing the project with consultative measures reflecting the special rights of Indigenous people. We hasten to add that this may not be the private feelings of the proponents and may arise through governmental policy to exclude human habitation from conservation areas. In such circumstances, the outcome is likely to be the same.

The reporting of evidence of poverty reduction, contributions to sustainable development, and improvements to well-being

CBB Community Gold projects require demonstration of net-positive changes in well-being, while the Gold Standard and VISTA require contributions to the SDGs to be stated. Unfortunately, evidence is scarce for any of these things in project documentation, if indeed it is practical to measure them at a project level. In many cases, proponents appear to have a weak understanding of the complexity of measuring development and seem unaware of basic tools that could be used. For example, UNDP has been publishing national Multidimensional Poverty Index scores since 2010 (e.g. UNDP, 2021) and the method can also be used sub-nationally (Hamago et al., 2023). Only one project we briefly looked at, Plan Vivo’s Upper Tana Nairobi Water Fund project, mentioned the term “multidimensional poverty” (and is not included in our discussions because the project deals with “small farmers”, not Indigenous people).

Most proponents give an indication of pre-project household incomes and publish data on carbon credit sales. It allows some evaluation of the economic success or otherwise of the project. Unfortunately, few proponents explain the significance of their data with as much clarity as they ought to.

By contrast, a large volume of review studies have looked at whether carbon schemes benefit participants (e.g. Lawlor et al., 2013; Blundo-Canto et al., 2018; Aggarwal & Brockington, 2020; Montoya-Zumaeta, et al., 2021; Sunderlin et al., 2024). Most put socio-economic indicators first, but a few add comments on well-being

effects. For example, Naime et al. (2024) found that the Ucayali project in Peru (Table 2) resulted in no improvements in household incomes, but some participants reported positive improvements in well-being through changes in the way they managed their resources (Naime et al., 2024, Figure 2). Wali et al. (2017) point to a dearth of conservation studies specifically focussed on human well-being. They found that in communities in Peruvian Amazonia where they did participatory research on the theme of valorising local cultural practices and systems of knowledge, people ranked their quality of life as high (Wali et al., 2017, Figure 3). Official statistics, on the other hand, ranked the communities as being in poverty. This issue relates to whether CCB Community Gold projects can be deemed successful if, despite being “pro-poor”, they fail to reduce poverty. We consider it further below.

We now look at the enhanced schemes for evidence of each of the above.

CCB Community Gold projects

The CCBS registry, hosted on the Verra website, lists 421 projects. Contemporary projects are expected to conform to the third edition of the standard (CCBA, 2013; Verra, 2017). Either because the projects have ended or their proponents have failed to update from CCB v1 or CCB v2, 133 projects can be discarded, leaving 288 projects compliant with the (latest) CCB Third Edition standard.

The Community Gold distinction requires “exceptional community benefits” to be demonstrated by being pro-poor or community-led and satisfying nine indicator criteria (Appendix C).

Eliminating those that are not in developing countries, are not certified to the third edition of the standard, or do not have the Community Gold distinction, leaves 14 projects. The project types are REDD+ (7), afforestation, reforestation and revegetation (6); improved wetland rewetting and conservation (1). The locations are Africa (7), Central or South America (5), and Asia (2). Examining them for evidence of Indigenous people in the project areas leaves just five (Table 2).

A historic carbon project, the Rimba Raya Biodiversity Reserve, notable for its claim to have been the first in the world to gain VCS-accreditation, also claims CCBS Climate, Community and Biodiversity Gold distinctions. However, the project has not been upgraded from its 2011 validation under the *second edition* of the standard (AENOR International, 2020) and will be discussed here only under its current application for VISTA validation (see below).

Table 2. Developing country projects validated at the CCB Third Edition Community Gold level.

Data source: CCB register <https://registry.terra.org/app/search/CCB/>.

Project	Project start	CCB 3 validation	Comments
Forest Management in Shipibo Conibo and Cacataibo Indigenous communities of Ucayali region, Peru	2012	2015	Proponent: Asociación para la Investigación y Desarrollo Integral (AIDER). Project activities include promotion of community forest management, promoting local forest governance in seven native communities, improving the definition of communal territories to minimise intercommunity conflicts, and prevention of illegal incursions.

Project	Project start	CCB 3 validation	Comments
The International Small group and Tree planting (TIST) program, Kenya	2005	2020	Grouped project of tree planting for fuel wood and tree cover by subsistence farmers, volunteer participants, on 6000+ small farms with a mean area of 0.37 ha. The households are spread across eight counties in central Kenya and are poor by global standards. The project documents do not refer to the farmers as Indigenous, instead saying they are drawn from “numerous ethnic groups and tribes”. There is no Indigenous Peoples Plan.
Makame Savannah REDD project, Tanzania	2017	2020	Project is on land of five Maasai communities, aimed at providing protection against land grabbing through strengthening land tenure, wildlife management area (WMA) designation and providing economic opportunities such as ecotourism.
Mindanao Tree Planting Program (MINTREES), Philippines	2015	2022	Program of cacao-based agroforestry among mixed rural smallholder farmer households of Indigenous and migrant background.
Komaza Smallholder Farmer Forestry, Kenya	2023	2023	Grouped project on 19,000 farm plots mostly in the Kilifi and Kwale counties of Kenya. Project Description mentions the minorities in the two counties, but fails to say most of the plots are on the land of Digo and Duruma Mijikenda speakers and Kamba people. The PD says the project “is developing an Indigenous People’s Plan”, but none published so far.

By virtue of having the Community Gold distinction, all five projects in Table 2 are implied to be Community-led or “explicitly pro-poor in terms of targeting benefits to globally poorer communities”, but the information provided in validation and verification reports is basic and it is not easy to tell whether the projects are working from an Indigenous point of view. The findings of independent researchers are as follows:

- Rodriguez-Ward & del Aguila (2014) provide more detail on the early stages of the Indigenous communities project in the Ucayali Region of Peru. The context is that of 2,500 Indigenous people in seven communities, two of Cacataibo and five of Shipibo Conibo ethnicity, dispersed among 430,000 other residents of the Ucayali Region. A key question is, for which of the “community-led” or “pro-poor” options was it claiming Community Gold validation? The project CCB validation report uses these two terms – only once and they do not recur in later monitoring reports – and says that “appropriate institutional and governance arrangements have been used to enable full and effective participation of Smallholders / Community Members in decision making, implementation and management of the project” (AENOR International, 2015). This looks like the project was claiming the Community Gold distinction on the grounds of being community-led.

But Rodriguez-Ward & del Aguila say that conveying accurate information about the project to members of the seven communities was a major challenge:

It has ... been a slow and difficult process to explain the ‘intangibility’ of carbon to communities and to undo misinformation and/or negative news about REDD+ and carbon prices. For example, news of

‘carbon cowboys’ illegally buying and selling carbon at exorbitant prices in Peru not only circulated in the communities but also across the country in 2011 and 2012 (Rodriguez-Ward & del Aguila, 2014, p. 181).

Thus, even if some members of the community(ies) asked for the project, it cannot have been the communities collectively that initiated the project, even if the “appropriate institutional and governance arrangements” that were introduced afterwards make it look community-led.

The project’s pro-poor credentials are weak in terms of monetary receipts. According to CIFOR’s Global Comparative Study on REDD+ (Montoya-Zumaeta & Naime, 2022), a fundamental problem was that no income was received for carbon credits until 2018. While this did not deter households from reporting a positive impact on well-being and improvements in forest management, an evaluation showed that the project had not actually succeeded in generating significant changes in household incomes or land use (Naime et al., 2024). The project’s first CCB-labelled credits were issued in 2021.

The most recent monitoring report (AIDER, 2021) lists nine claimed Exceptional Community Benefits, a Community Gold reporting requirement. Five were training workshops; three were committee meetings; one was “visits to plots / surveys” where “635 families among the 7 CCNNs are being benefited with the productive activities and training carried out by AIDER”. It may be noted that while Indigenous women were developing a line of artisanal embroidery products for sale in local fashion stores, they were not from all of the communities. Similarly, only two out of seven Control and Vigilance Committees included a woman. As part of conflict management, the boundaries of the communities had yet to be marked with milestones as proposed. More than half the communities did not have bank accounts, so “Strengthen the financial capacities of organized groups for the efficient, transparent and responsible management of funds” was still a future activity.

All these things are potential of benefit to the participants and may be pro-poor in conception, but the project’s record of improving well-being for all must be considered thin after nearly a decade of operation.

- The TIST program in Kenya has generally been in favour with development agencies like DfID. However, a masters thesis written five years into the first stage of the program found no significant difference in income between participants and nonparticipants (Kinuthia, 2010) and an evaluation reporting shortly afterwards still found the project in deficit and farmers receiving just USD 0.02 per tree per year (Masiga, Yankel & Iberra, 2012). Buxton et al. did find a significant greening trend in the project area by comparison with neighbouring areas, using Landsat 7 analysis (Buxton et al., 2021), lending some truth to the idea that forest carbon projects in Africa can be “green but mean” (Schmid, 2023). The project’s first CCB-labelled credits were issued in 2021.
- The Makame Wildlife Management Area is one of three WMAs adjacent to Tanzania’s Tarangire National Park, founded in 1957 and an exemplar of “fortress conservation”. The Tanzania government’s more recent intention in forming WMAs was that pastoralists could co-exist with wildlife and income from tourism would be sufficient to cover the costs of foregone land use, damage to crops caused, and to pay Village Game Scouts. In practice, Makame is some distance from the main tourism circuit and the income has been disappointing. The carbon project, validated in 2020, is a renewed attempt to bring income through conservation. The wider area and the problem of human-conservation interactions are well-studied (Kiffner et al., 2022), but the project has been the subject of a preliminary review only (Baker et al., 2022). The project’s first CCB-labelled credits were issued in 2020.

- The MINTREES program in Mindanao, operated by the Philippine company Kennemer Foods, earned its first CCB-labelled credits in 2023. Consultative process was set up with communities for participative project design, but there were no specific dealings with an Indigenous association or representative political structure. To date the project has only had publicity through favourable media releases (e.g. MEDA, 2024, February 2024) so it is impossible to judge how the participants are faring. The project's first CCB-labelled credits were issued in 2023.
- The Komaza smallholder carbon project in Kenya is run by Komaza Group Inc, a forestry company created by a San Francisco entrepreneur, using an out-grower model. Conservation International's CI Ventures provided bridge financing in 2019 to help with expanding the project and the company has since been very successful at raising venture capital (e.g. Kazeem, 2020, July 15). No independent evaluation is to hand and no CCB-labelled credits have been issued to date.

In summary, three of the projects classed as CCB Community Gold (Ucayali, TIST, Makame) were found to bring little detectable income to local communities in the evaluations done to date, while the other two are basically commercial ventures where the proponent runs the carbon project as a service. The TIST, MINTREES and Komaza projects also cover wide areas and take in thousands of participants so it is unclear (a) they can be described as "community-led" and (b) how the benefit sharing mechanisms can have been designed through participatory processes. In short, the nine criteria are described in the project documents, but they are *not convincingly demonstrated at any project*.

Gold Standard projects

The Gold Standard (GS) first appeared in 2003 by WWF and other NGOs to evaluate Clean Development Mechanism projects. It was rebadged in 2017 as the Gold Standard for the Global Goals (GS4GG), targeting the achievement of at least three SDGs.

The Gold Standard registry listed 3304 projects in April 2024. Restricting the project type to afforestation / reforestation (A/R), left 57 projects. Restricting the status to "Gold Standard Certified" projects – as opposed to those in a design stage – left 23. Discarding six projects in the USA, Australia, India, China and Georgia left 17.¹⁴

To match the gist of the CCBS Community Gold criteria, further qualifications adopted here are:

- (a) all projects should aspire to SDG5 "Gender equality" regardless of which of the other human development goals (any of SDGs 1-6, 10 and 16) are included.
- (b) SDG12 "Responsible consumption" and SDG13 "Climate action" cannot count towards the Gold Standard minimum of contributions to three SDGs, because they have a primary relevance to industrialised, not developing, countries.
- (c) there must be evidence of Indigenous people in the project area and they must have a say in the project design.

Filtering the 17 projects on these criteria leaves no projects at all.

¹⁴ <https://registry.goldstandard.org/>.

Backtracking to “Gold Standard Design” projects – projects that have not started – there is one project of *possible relevance* in the registry, the PNG Biomass Project, a proposal at the design stage to establish 15,000 hectares of plantation timber in old pastoral leases on Indigenous-owned land in the Markham Valley, Papua New Guinea.

Further investigation shows that under its former owners, Oil Search Limited (a PNG-based oil and gas company), a plantation-and-woodchip operation was to supply up to 40 MW of power into the local electricity grid under a power purchase agreement. Participation by local communities was limited to the receipt of income from land rental and the supply of labourers. Oil Search was acquired by the global energy company Santos Limited in 2021 and the most recent notice to the registry is that the biomass plant has been scrapped and that a conservation forest will be grown, scaled back to 12,000 hectares, with carbon revenues used to compensate landholders and support community development projects (PNG Biomass, 2024). Rebadged as the Markham Valley Afforestation and Reforestation Project, it appears to have been folded into Santos’ climate change and corporate philanthropic endeavours (Santos Limited, 2023).

A project start date has not been announced and no Gold Standard-labelled credits have been issued.

VISTA projects

The VISTA (Sustainable Development Verified Impact Standard) standard (Verra, 2019) is potentially significant as an add-on to Verra’s VCS standard. In a similar way to the Gold Standard, VISTA projects must show how they will progress the SDGs. However, the standard only requires the objective that a project contributes to “at least one” SDG (Verra, 2019, January 2022, s2.1.2).

As of April 2024, 195 projects were listed worldwide. Of these, 65 Agriculture, Forestry, and Other Land Use (AFOLU) projects had attempted VISTA registration. Pairing up two projects in Kenya and two projects in Cambodia that occupy contiguous project areas, only four of them were in developing countries (Table 3).

Table 3. Developing country projects in the process of VISTA validation and verification.

Data source: VISTA register <https://registry.verra.org/app/search/SDVISTA>.

Project	Original project	VISTA application	Comments
Rimba Raya Biodiversity Reserve Project, Central Kalimantan, Indonesia	2008	2019	The project, operated by PT. Rimba Raya Conservation and marketed by InfiniteEarth of Hong Kong, is located in a tropical peat swamp forest and is based on the conservation of Orangutan habitat (InfiniteEARTH, 2013). Most villagers, who typically belong to Dayak and Banjar tribes, earn a living from fishing. The project claims to address all 17 SDGs. ¹⁵

¹⁵ <https://rimba-raya.com>.

Project	Original project	VISTA application	Comments
The Kasigau Corridor REDD+ Project, Phases I & II, Kenya Note: under two project numbers, the two phases occupying different ranches in the same area.	1998	2022 (both phases)	Wildlife Works began conservation on ranches (pastoral properties) in 1998 and moved into REDD+ in 2008. Activities include a ranger program, income-generating activities, reduction of human-wildlife interactions, addressing deforestation, school bursaries, and health services for the Taita people, in whose ancestral homeland the project is located.
Samkos and Southern Cardamom REDD+ Projects, Cambodia Note: under two project numbers, the two projects occupying adjacent parts of the Cardamom Mountains.	2015 (initial government moves to protect Cardamom Mountains: 2001)	2021 (Southern Cardamom) 2023 (Samkos)	REDD+ projects in a Wildlife Sanctuary under an agreement between the Royal Government of Cambodia (Ministry of Environment) and Wildlife Alliance. The Southern Cardamom project area has a population of 16,000 people in 29 villages. The area is the ancestral home of Indigenous Chong people, who live in 11 of the villages. The project started earning Verra VCUs in 2015 and received issuances between 2018 and 2023. All Verra registries suspended issuances in 2023. The Samkos project area, on the northwest side of the Southern Cardamom area, is the ancestral home of the Por and Chong Indigenous peoples. The majority of the 67,000 people living in the Samkos project zone are Khmer who moved into the area after the Cambodian Civil War.
Papariko – Restoration of Degraded Mangrove Areas, Kenya	2022	2022	Proponent: Vlinder Austria GmbH, with Kenyan Forest Service. VCS registration put on hold in 2023 (errors in defining the project area etc).

Independent findings about the projects are as follows:

- The Rimba Raya Biodiversity Reserve is currently undergoing VISTA validation. It is notable for its claim to have been the first in the world to gain VCS-accreditation and to have been the world's first forest-carbon project in the world to receive Triple-Gold CCBS Climate, Community and Biodiversity Gold distinctions when validated under the CBB v2.0 standard in 2011. When this was renewed in 2015, it boasted that it "maintains the highest standards" (InfiniteEarth, 2015). However, the claim was deceptive because the project had not been upgraded to the third edition of the CCB standard, released in 2013, therefore the standard of monitoring and reporting actually fell short of best practice. The most recent validation statement available on the CCB registry shows that it still meets the second edition standard only (AENOR International, 2020).

In March 2024, Indonesia's Ministry of Environment and Forestry revoked the operating license for the Rimba Raya Conservation project for "forest carbon trading violations".

The Ministry alleged the operator had transferred carbon credits without approval, done carbon trades outside its permit area, broken its agreement with Tanjung Puting National Park, and failed to make

concession payments (Government of Indonesia, 2024). The project website has a news section,¹⁶ but has nothing more recent on it than InfiniteEarth's 2015 media release. PT Rimba Raya Conservation's CEO did not respond to requests for comment made by a Bloomberg journalist (Lee, 2024).

- The Kasigau Corridor Project, started in 2010, was the world's first REDD+ project. It is run by Wildlife Works, a California-headquartered environmental organisation, which also has REDD+ projects in Democratic Republic of Congo, and Colombia. In 2023, revelations surfaced that male staff and rangers working for Wildlife Works at the project had exploited their positions of power to demand sexual favours from female staff and other women linked to the project, a situation that had persisted for over a decade (SOMO & KHRC, 2023). Wildlife Works terminated several staff (Korchinsky, 2023, November 3) and the project certifier, Verra, responded by suspending credit issuances (Verra, 2023, November 3). Verra found that the allegations were essentially true and listed the Verified Carbon Standard rules that had failed.

Because the Kasigau Corridor Project has been going so long and because Wildlife Works had been issuing quasi-annual verification reports for years without flagging anything amiss at the project, we treat this project as an object lesson in how supposedly experienced governance bodies can get things so wrong (see Part III).

- The key independent investigation of the situation in Cambodia is the report by Human Rights Watch on the Southern Cardamom project (HRW, 2024). HRW found that though the project started in 1 January 2015, community meetings did not occur for another 31 months. At the eventual meetings in 2017, where villagers expressed their confusion over the boundaries of the project, they were told they would be helped to apply for land titles. In 2021 it was conceded that in fact the project had no ability to do this. Even so, the Samkos project description was still claiming that land title applications would be considered "in the coming months" (Wildlife Alliance, 2023). The reality is that none of the Chong communities have been able to obtain communal land titles to protect farmland, spirit forests, burial sites, and other communal land (HRW, 2024, p. 5).

The project description document for the Southern Cardamom project is confused. It says "there are differing reports as to whether the ethnic group in the Areng Valley, which calls itself to be Chong, is Chong" (Wildlife Works Carbon, 2021). This, in fact, reflects the problems raised by Human Rights Watch. and the VISTA validation of the Southern Cardamom project was placed on hold following Human Rights Watch's intervention.

- The Samkos project description says a government-run program of land titling is underway and the only obstacle noted is the presence of land mines in one village. It is concurrently seeking validation and verification under the VCS, CCB and VISTA standards. However, until further information is forthcoming, the Samkos project, sharing a boundary with the Southern Cardamom project in the Cardamom Mountains, must also be treated as suspect at this point.
- The Papariko Mangrove Project, Kenya Coast, is just getting underway. In Kwale County, the four villages of Bobo, Munje, Funzi and Shirazi are involved, most of the population being of Wa-Shirazi ethnicity. More than half the population lives on less than the national income-poverty line, and only 28% of adults have more than primary education. The Kenya Forest Service works with a local Community Forest Association, which has about 40 members, to implement the project, with intervillage liaison handled by a Steering

¹⁶ <https://rimba-raya.com/rimba-raya-news/>.

Committee drawn from the four villages. Scouts will be engaged to patrol the mangrove areas while community-based organizations, notably women's groups – Bidii na Kazi Womens Group, Jitahidi Womens Group are two – are establishing mangrove nurseries.

It is too soon to say how successful Papariko will be, but though people might be poor in this area, they have strong village governance structures (chief, subchief, village elders, cultural and religious leaders) and a culture of forming community associations. At the same time, beach tourism is well established along the Kenya Coast and there is a merging of interests in mangrove restoration rather than any competition between livelihoods.

Plan Vivo projects

Plan Vivo is a small scheme, with 25 projects shown on its registry. It claims to have issued the world's first carbon credits in 1997 and to "take a holistic approach to conservation and social and economic development". The first edition of its standard was created in 2004, and this has now evolved to take account of contributions to the SDGs. The fourth and fifth editions of the standard were published in 2013 (pre-SDGs) and 2022 (SDG period). Plan Vivo Certificates are registered on the Markit Environmental Registry,¹⁷ part of S&P Global.

Table 4. Plan Vivo projects in developing countries where Indigenous people are involved.

Data source: VISTA register <https://registry.verra.org/app/search/SDVISTA>.

Project	Start of project	Plan Vivo certification	Comments
Yaeda-Eyasi Landscape project, Tanzania	2011	2013	Community-led REDD+ project in Acacia woodland on the ancestral land of about 1,300 Hadza (or Hadzabe) hunter gatherers, together with their pastoralist neighbours, in 15 villages. The Hadza secured Tanzania's first Certificate of Customary Right of Occupancy in 2011. Project awarded Equator Prize, New Economy category, 2019.
Loru Forest Project, Espiritu Santo, Vanuatu	2013	2016	ADD project where PES are made to the ~50 descendants of Chief Serakar of Khole village for avoiding industrial logging in a project area of 293 hectares, which has occurred in surrounding areas. The project proponent is Nakau Programme Pty Ltd.
Bujang Raba community REDD+ project, Central Sumatra, Indonesia	2014	2016	REDD+ project in five Indigenous communities, comprising 934 households, bordering Kerinci Seblat National Park, who obtained legally recognized rights over the project land in 2013. Also protects Sumatran Tiger, Malaysian Sun Bear, Tapir, and hornbill habitat.

¹⁷ <https://www.planvivo.org/markit-registry>.

Project	Start of project	Plan Vivo certification	Comments
Rehabilitation of degraded pastures in the Sahel region of Burkina Faso	2016	2016	Project covers four villages. Land use is mostly based on transhumant pastoralism, but the FAO-introduced Delfino plough is being used to catch moisture and restore soil fertility.
Durian Rambun village, Central Sumatra, Indonesia	2017	2017	REDD+ project where PES are made to a village community of <300 Indigenous Malay-speaking people. However, the village-level structures of authority (legislative body, elected head) are those of the government.
Drawa Forest Project, Vanua Levu, Fiji	2015	2018	Indigenous ADD project run by the Nakau Programme Pty Ltd where PES are made to nine Indigenous <i>mataqali</i> (clans): Drawa, Navunica, Nadugumoimoi, Bakibaki, Nakalounivuaka, Vatucuca, Koroni, Tonikula and Nakase, with a combined population of 500 people, and following a Conservation Management Plan.
Gula Gula Food Forest Program, West Sumatra, Indonesia	2012	2021	1,333 hectares of grassland areas restored into productive food forest areas in matrilineal Minangkabau communities, with ownership defined in the Indigenous Adat system of law.
Babatana Rainforest Conservation Project, Choiseul Province, Solomon Islands	2021	2021	ADD project where PES are made to the approximately 438 members of the Sirebe tribe, for avoiding industrial logging, which has occurred in surrounding areas. The project proponent is Nakau Programme Pty Ltd.

Independent findings about the projects are as follows:

- The Yaeda-Eyasi Landscape project in Tanzania has been running for over a decade among a group of Hadza hunter-gathers in Tanzania, a small-scale society reputed for its egalitarianism (e.g. Woodburn, 1968; Marlowe, 2004; Stagnaro et al., 2022). The project is well-known internationally, having been awarded an Equator Prize in the New Economy category in 2019. It employs some 120 community members as Village Game Scouts. The basis of the project is that the strengthening of land rights and patrolling by the Scouts will contribute to a reduction of poaching and illegal incursions by outsiders and, as a consequence, both wildlife numbers will improve and vegetation cover will increase. Sales of credits are shown in annual reports of the project (Carbon Tanzania, 2023).

A significant problem for Indigenous groups in Tanzania is that, despite the fact that the government of Tanzania signed the UN Declaration on the Rights of Indigenous Peoples, it avoids acknowledging the status of Indigenous people in the country. However, in a book-length treatment, Jodoin (2017) found that the Yaeda-Eyasi project is an exception and that the proponents, CarbonTanzania, have achieved a “high level of social and environmental performance” (2017, p. x). He went on to say that the Indigenous rights and knowledge of the Hadza were properly recognised during the design of the project, and that it was the only example in Tanzania where Indigenous people had not been excluded from REDD+ projects under the

National REDD+ Strategy (2017, p. 164). This may not be sufficient in the long run as it only covered about a tenth of the area the Hadza use as their normal range, but as of 2022 a well-known UK-based science writer said that the project was holding up (Pearce, 2022).

- Payne’s (2020) case study of the Loru Forest Project in Vanuatu found that Chief Kaleb Serakar of Khole village placed a traditional *tabu* on the Loru forest, protecting it from logging, a sign nailed to a tree reading “Tabu blong hunting or karen any samting insaed long Loru conservation area – yu brokem loa!!” (No hunting and bringing anything into the Loru Conservation Area – It’s breaking the law). Following his death, members of Ser clan, who are Chief Kaleb Serakar’s descendants, began the carbon project with the Nakau Programme, which includes farm plots in between blocks of forest. Payne looks at possible problems of elite capture but says this has been avoided by the proponent Nakau’s pre-project use of free, prior and informed consent and its capacity building exercises. Over its first seven years, the project documentation shows that USD 45,000 had been paid to Ser clan in credit sales.
- The two projects in Central Sumatra involve extremely poor people. The 274 people in 87 households in Durian Rambun had an average annual income estimated at USD 1423/year in 2012, when a pre-project survey was done, so the villagers were living on approximately USD 1.24/day each, of 65% of the World Bank’s 2011 international income poverty line of USD 1.90. Approximately USD 41,000 was paid to the Durian Rambun households for the five years 2015-2018, or around USD 94/household/year. This means that the combined income estimate after the project was underway gave villagers USD 1.32/day each to live on, still well below the poverty line.

The proponents of the larger Bujang Raba project say in the project description that household surveys would be done, but they have provided no evidence of doing so. Nonetheless, it is possible to estimate that the USD 363,000 in carbon sales 2018-2021 have been worth approximately USD 97/household/year. Without knowing pre-project household incomes, it is impossible to say what the economic effect of the REDD+ project has been, but it is plausible to suggest that it has been similar to that at Durian Rambun.

de Flon (2022) does not say when she made inquiries with either of the projects for the case studies in her master’s thesis, but Plan Vivo’s most recent online documentation is December 2021 for Bujang Raba and September 2018 for Durian Rambun. It is unclear why the project proponents have not provided recent updates, though this may have to do with the Indonesian government halt to (part of) the carbon trading market for a period up to mid-2023. Regardless, we can say that both communities were living in poverty before the start of the projects and the projects are unlikely to have helped them escape it.

- The rehabilitation and sustainable management of degraded pastures in the Sahel region of Burkina Faso project is run by REACH Italia, an Italian NGO with a focus on the sponsorship of primary school children in Mali, Niger and Burkina Faso, and a side interest in land restoration.¹⁸ The Sahel project area is the north and poorest part of the country, with a mean income of USD 1.60/day per person the population, 16% below the World Bank income poverty line (in 2016) of USD 1.90/day. School enrolment is low. UNDP’s Multidimensional Poverty Index gives a non-income assessment of household living conditions, and it places Burkina Faso (MPI=0.574) second last only to South Sudan out of all countries measured (UNDP, 2021).

¹⁸ <https://www.reachitalia.it>.

Problematically, attacks by terror groups in this exact area have been on the rise since 2016. A 2021 annual report says that the deteriorating security situation had forced the abandonment of some project sites and had “considerably reduced” the project’s field activities (REACH Italia, 2021). The situation is now a full crisis, the US State Department saying it was “gravely concerned” by the rise in violence against civilians in February 2024 (Department of State, 2024, March 1). Both the US and Australia’s current travel advisory is “do not travel”. The European Union has switched its external aid from support for long-term food security programs to a response focussed on humanitarian aid, and the constraints on movement will obviously apply to REACH Italia. In the absence of comment by them to the contrary, the project must be considered as currently blocked.

- The Nakau Programme is favourably regarded, but there is no update on its Drawa Forest Project on the Plan Vivo website since 2017. Its latest annual report (Nakau, 2023) carries a Q&A between a Drawa ranger and Monica Evans of Mongabay. Evans herself (2023) reported positively on the project, however without providing detail. Another positive review is by Tawanakoro (2023).
- The Gula Gula Food Forest Project in the Singkarak Watershed in Sumatra, Indonesia, is being implemented in the context of a distinct system of social organisation. The Minangkabau are a matrilineal society and have been organised into communities (*nagari*) with traditionally defined boundaries for many centuries, a system recognised in laws passed by the Government of West Sumatra during the 2000s. An aid to the project is that public participation is not novel, but is stressed in traditional culture, as is gender equality, and the concept of mutual help and village consensus (*mufakat*) is a cultural priority. Dispute resolution can be handled through discussion or by escalation to the Adat (village) Council.

The project is organised into cooperative farmer groups, with 2-20 members, each having its own contract and each specialising in a specific crop: coffee, cocoa, cloves, cinnamon, mahogany etc. The proponents set it as a goal of the project that participants should be able to earn a monthly income above the minimum wage for West Sumatra, which can be calculated at approximately USD 6.50/day. However, the 2002 annual report says annual targets have not yet been reached “for various climate-related and COVID effects” (Burgers et al., 2023, p. 29). Sales were around USD 214,000 (not stated exactly) in 2022 and costs, before payments to farmers, USD 215,000. The total payment to the 367 farmers was USD 17,013, or just USD 46 each for the year. In summary, the project was highly consultative in nature, but is not contributing much to household incomes.

- The Babatana Rainforest Conservation Project in the Solomon Islands is another project set up by the Nakau Programme. Kristen Lyons of the University of Queensland has been a critic of carbon projects, taking an environmental justice approach. Before the project started, she and her co-authors profiled the activities of the Solomon Islands NGO, Natural Resources Development Foundation (NRDF) in fostering alternative village-based and conservation-related income streams, educating villagers about the value of looking after nature, and in involving women at every stage (Lyons et al., 2019).

NRDF became Nakau’s local partner in the Babatana Rainforest Conservation Project. After examining the limited capacity of a small island state to develop a policy response to international REDD+ initiatives, Lyons and Walters say that NRDF’s work at Babatana and elsewhere are an “example of best practice for the implementation of carbon market projects in a small state” (Lyons & Walters, 2021, p. 60). These authors visited Babatana with twelve students in 2023 in cooperation with Nakau and NRDF and were highly positive about the way the project was being run (Lyons & Walters, 2023). The Pacific-specialising

environmental journalist Jo Chandler visited in 2024 and had a similarly favourable opinion of both Natural Resources Development Foundation and the Babatana Rainforest Conservation Project (Chandler, 2024).

Qualities of good projects in the enhanced schemes

Table 5 gives a thumbnail summary of the quality of the seventeen projects in the enhanced schemes that fit our criteria (tropical vegetation, participatory decision-making, Indigenous people in the project area, poverty reduction).

While not claiming to be definitive, we have used a green, orange and red traffic light system to flag more and less successful projects: 29% (5) have green, 47% (8) have orange, and 24% (4) have red lights.

A green light means that there was good evidence of participation in project documentation and in third-party reports (which we take to indicate good compliance with FPIC), both kinds of reports suggest that participants are satisfied with how the project is working, plus no adverse findings have been made.

It does *not* mean that a project is set up to achieve economic viability, measurable emissions avoidance, and to make measurable contributions to sustainable development over a long run of years. Indeed, only one of the five green projects, Yaeda-Eyasi, has been running long enough to say that it is at least *economically* viable.

In all cases, external factors could disrupt the projects: migrant farmers or pastoralists could overwhelm the large areas of their land where the Hadza have not secured legal rights, the Loru and Babatana forest protectors could succumb to the predations of loggers, miners or logger could get into the Drawa forest, beach resort developments could invade the Papariko mangrove area.

An orange light means that the project is either driven by commercial priorities, rather than primarily from the desire of the community, FPIC may be weak, or the project has not yet been able to demonstrate that extremely poor villagers are benefitting from their participation. Being founded on a business model is not inherently a bad thing, but it does mean that if the business is restructured the connection to the participants may falter (see the example on p. 17, where a corporate merger caused a project redesign).

Several projects among the seventeen appear well set up, or to have excellent consultation and governance structures, such as the Gula Gula Food Forest project in West Sumatra, but the project's own data suggest that participant incomes have been too low so far to contribute to poverty reduction.

A red light means that adverse findings have been made. If they are rectified, it does not mean that a project will automatically be restored to a higher position. For example, the Kasigau project says it terminated the rogue staff implicated in the sex abuse scandal, but the structural problems of its unequal dealings with the ranch owners and local communities remain.

In the two projects in the Cardamom Mountains in Cambodia, a major policy overhaul in government dealing with minorities would be needed for community participation in decision-making to become more meaningful. We do not know the details of the "forest carbon trading violations" Indonesia's Ministry of Environment and Forestry alleged when it revoked the operating license for the Rimba Raya Conservation. It is quite possible that the allegations can be refuted, but Rimba Raya's silence in the months since the revocation is unhelpful.

REACH Italia's Sahel project is perhaps a heroic one in the circumstances. It is not the project's fault that armed conflict has flared in the area around the project, indeed the organisation is to be commended for working there in the first place. But it has not made any comment on how it intends to respond to the current situation. As with Rimba Raya, this is unhelpful and it takes the sponsors for granted.

Table 5. Thumbnail summary of the seventeen projects.

Key: ● = By all accounts, a good project ● May not have adequate outcomes ● License revoked or suspended.

Project	Reg	Arnstein's Ladder	Comments, outcomes
Ucayali Forest, Peru	CCB Third Edition Community Gold	4-6 Consultation-Partnership	● Limited effect on incomes.
TIST, Kenya		4-6 Consultation-Partnership	● Limited effect on incomes.
Makame Savannah, Tanzania		4-6 Consultation-Partnership	● Limited effect on incomes.
MINTREES, Philippines		4-6 Consultation-Partnership	● Commercial enterprise.
Komaza Forestry, Kenya		4-6 Consultation-Partnership	● Commercial enterprise.
Rimba Raya, Indonesia	VISTA (in validation)	4-7 Consultation-Delegation	● License revoked, 2024.
Kasigau, Kenya		3-5 Tokenism	● Sex abuse scandal, 2023.
Cardamom Mts, Cambodia		3-5 Tokenism	● Suspended by Verra, 2023.
Papariko Mangroves, Kenya		● 6-8 Citizen Control	Promising, but very early stage.
Yaeda-Eyasi, Tanzania	Plan Vivo	● 6-8 Citizen Control	Best of the Tanzanian projects.
Loru Forest, Vanuatu		● 6-8 Citizen Control	Good, but very small area.
Bujang Raba, Indonesia		4-7 Consultation-Delegation	● Villagers in poverty?
Sahel Region, Burkina Faso		4-6 Consultation-Partnership	● Blocked by armed conflict.
Durian Rambun, Indonesia		4-7 Consultation-Delegation	● Villagers in poverty.
Drawa Forest, Fiji		● 6-8 Citizen Control	Positively reviewed.
Gula Gula, Indonesia		4-6 Consultation-Partnership	● Limited effect on incomes.
Babatana, Solomon Islands		● 6-8 Citizen Control	Good project, NRDF praised.

PART III

ADVICE FOR GOOD PRACTICE

Benefits, challenges, especially major pitfalls that have impeded equitable and sustainable carbon projects in Indigenous communities.

Especially on governance (structures for enforcing land and resource use rules, communication and consent, participatory decision-making, distribution of benefits, transparency, conflict and grievance resolution, FPIC, etc.

Lesson 1. For best practice, we cannot look beyond the seventeen projects (yet)

The carbon projects explored in Part II represent some 4000 that are listed in what we have called the “enhanced schemes”. By filtering the registries in the way we have (tropical vegetation, participatory decision-making, Indigenous people in the project area, poverty reduction), we have reduced them to just seventeen projects across the developing countries of Central and South America, Africa, Asia and the Pacific: five CCB Third Edition Community Gold projects, four yet-to-be-approved VISTA projects and eight Plan Vivo projects.

If there are others outside these schemes, they are likely to be in a scheme that is being phased out (e.g. the Clean Development Mechanism), in newer voluntary schemes endorsed by the International Carbon Reduction and Offset Alliance (Table 1) where insufficient time has elapsed to make a reasoned assessment, they are possibly located in developed countries like Australia (see below, Lesson 8), or they have some other complication that rules them out of our sample.

An example is the Vida Manglar mangrove protection project on the Gulf of Morrosquillo in Colombia. This is a CCB Community Gold Third Edition project. However, the population catchment is self-described as a “multicultural and multiethnic panorama”. It is spread across six municipalities, takes in some 286,000 people, and covers a regional environmental authority and several agricultural and regional development institutions. The project area does include Indigenous people, but they make up only 5.9% of the total and are not listed as a distinct group of stakeholders, even specifically among the *mangleros* mangrove users (Conservation International, 2020). We have judged that this is not sufficient to classify the governance of the project as having meaningful input from its Indigenous residents.

If there are *still other well-run schemes* we have not come across, our first question would be why they have not sought accreditation from any of the registries endorsed by the international body, ICROA. The standards required by the registries have many shortcomings, but they are well-documented, most have evolved through several editions, and have won general acceptance as the starting point.

What can be learned

We have adopted the methodology of filtering the projects, as described in this review, as the best way to arrive at meaningful examples of Indigenous involvement in the governance of carbon projects in the Global South. For the time being this is the optimal method.

Lesson 2. What does “community-led” or “Indigenous-led” look like?

We found five projects where the community, whether or not 100% Indigenous, was clearly in a strong decision-making position: the Papariko Mangroves project in Kenya, the Yaeda-Eyasi (Hadza) project in Tanzania, the Loru Forest project in Vanuatu, the Drawa Forest project in Fiji, and the Babatana Rainforest Conservation project in Solomon Islands. In each case, the communities are strongly vested in the carbon projects as a means of defending the resources they depend on for their livelihoods.

Unfortunately the last three concern small-scale societies of some hundreds of people (see below, Lesson 3) and, while the methods used to set them up merit further study, tips for scaling up such projects to a confederation of communities with a total population numbering in the many thousands, such as we see in the Alto Mayo Awajún project area, are likely to be limited.

The Papariko Mangroves project is only just getting underway, but we can already see that the project has many promising elements that show what can be done even when local educational standards are not high. It is based on a local Community Forest Association, it has an intervillage Steering Committee, scouts will patrol the mangrove areas, and community-based women’s groups are taking charge of the mangrove nurseries. All these things earn the project the “-led’ tag and need to be seen in a well-run project.

Finally, the Yaeda-Eyasi (see below, Lesson 4) has been operating for more than a decade and is open to all the Hadza people in a relatively well-bounded project area. The cadre of local ecological experts, in the form of Village Game Scouts recruited from the Hadza community, make up the backbone of project activities. In this case, the risks to the project are largely external, in the partial – but not total – recognition of Hadza lands by the government of Tanzania and encroachment of non-Hadza herders into the project area. Management of the carbon-trading and reporting aspects of the project is still dependent on the UK-based Carbon Tanzania, but it is clear that the Game Scouts drive day-to-day project monitoring. In summary, the project looks effective in itself, even if question marks do hang over how well the external challenges can be handled in the longer term.

What can be learned

A well-functioning community- or Indigenous-led carbon project requires most of the following to be in evidence: effective overall leadership, the delegation of more routine decision-making to community committees, strong involvement by women, and active agents in the landscape whether called rangers or game scouts. It also needs to be demonstrated that the lower-level organisational groups undertake regular activities that have outcomes essential to the project.

Lesson 3. Nakau Progamme / NDRF projects in Vanuatu, the Solomon Islands, and Fiji

These three projects stand out for the close relationship between the proponents, the Nakau Progamme, the Natural Resources Development Foundation (in Vanuatu), and the Indigenous clans that make up the local communities. An excellent standard of FPIC has clearly been achieved, aided by the nature of customary social organisation in the three Pacific Island countries, which remains strong and at the heart of national culture.

However, these are small projects. The clans owning the project areas number about 50, 438, and 500 people respectively.

Threats from logging are ever-present in all three countries. If discontent arises at any of the three projects, the weak national governance of the timber industry will render them vulnerable to the fast money to be had from logging.

On the island of Vanua Levu, Fiji, forests are also under threat from large-scale mining. Aquilo Gold, a Fiji-based mining company, has a gold mine prospect at Mt Kasi, about 10km south of Drawa, and bauxite mining has been carried out to the north. All Pacific countries have tight budgets and the wishes of resources ministries almost always take priority over those of the departments responsible for environmental protection.

A conservation management plan in the environmental data portal of the Secretariat of the Pacific Regional Environment Programme (SPREP) gives more of an idea of NRDF's work (PPAMC, 2019). The plan was written for the purpose of making an application for some 4800 hectares of rainforest owned by the 3000-strong Padezaka tribe in the centre of Choiseul Island in the Solomon Islands to be made into a Protected Area under national legislation. The lead author of the plan was the Padezaka Protected Area Management Committee and the NRDF and other organisations assisted.

The introduction leads off with a "The Padezaka Tribe: Who we are" section (rather than "Who they are") and traces the history of their conservation initiatives in the face of logging threats on Choiseul Island. After the passing of the Solomon Islands *Protected Area Act 2010*, their territory became part of a larger area planned by the government of Choiseul Province to be set aside for conservation purposes, to which they readily concurred.

However, hypothetical government intentions are no match for the "petty bickering of ... politicians and the manipulative behaviour of Asian loggers" in the Solomon Islands (Aqorau, 2008, p. 246) and the tribal association decided to find a way to permanently safeguard their forest. After beginning the partnership with NRDF, the first exercise was one of land boundary survey, and ecological zone and cultural heritage mapping. After that the first Management Committee and Planning meeting was held, chaired by the Chief Godfrey Gatarukusu of the Padezaka, the management plan was developed and presented to the broader membership. This included a matrix summarising what they assessed to be the current threats to their rainforest (Table 6), which gives an idea of what was on their minds. Part of the commentary was "the vulnerability of tribes to fast cash is clear and visible all around Solomon Islands" and mining was singled out as an additional and rising threat in the province (PPAMC, 2019, p. 16).

What is not seen here is a sceptical community requiring *elaborate* FPIC procedures to be followed. Rather, the tribe has itself decided on a direction it wants to take and the tribal leadership – households heads in an essentially egalitarian society headed by their chief – have set a specific course, as set out in the management plan. Their application was successful: the Solomon Islands Minister of Environment issued a Certificate of Protected Areas Registration in 2021.

The existence of a team of rangers is mentioned in the plan document, but it is not explained how they are organised or funded. Their key tasks are to monitor the new Protected Area, continue to document its features, collect visitor fees from the few tourists who may visit, and report on activities that are outlawed in the Protected Area.

A note of caution is that collective activities of this nature have a mixed track record in Melanesia and prove to be dependent on the cohesiveness of social organisation in the area concerned.

An area noted for its high social cohesion and a specific shared history of contact with outsiders – the entire language group converted to Seventh Day Adventism in the 1920s, otherwise a minority faith in the country – is the Kokoda Track area in Papua New Guinea. Here, the Mountain Koiari have successfully become involved in the business of adventure trekking (Burton-Tairu, 2020). The Kokoda Track, which attracts 4000 fee-paying trekkers a year, can be contrasted with situations where local jealousies paralyse tourism and conservation initiatives, such as seen in the disintegration of the Crater Mountain Wildlife Management Area (see below, Lesson 9).

Since the Padezaka Protected Area has only been in existence for three years, it is early to pass judgement on its success or otherwise.

Table 6. List of threats to the Padezaka rainforest (PPAMC, 2019, Table 1).

KEY VALUES	Water catchment	Biodiversity	Connectivity	Cultural Heritage	Tourism & Economy	Overall Threat
THREATS						
Logging	Very High	Very High	High	Very High	High	Very High
Climate Change	High	High	High	Medium	Medium	High
Expansion of Gardens and Village	Medium	Medium	Medium	Medium	Medium	Medium
Unsustainable Resource use	High	Medium	Medium	Medium	Medium	Medium
Invasive species	Medium	High	Medium	Medium	High	Medium
Mining	Very High	Very High	High	Very High	Very High	Very High
Risk Status	High	High	High	Medium	High	High

What can be learned

Working closely with Indigenous groups, especially following the hands-on approach of the Natural Resources Development Foundation (NRDF) in Vanuatu, is the optimal way for carbon projects to proceed. But the at least initial success enjoyed with very small groups, as seen in these three countries, can be expected to be difficult to scale up to larger project areas and bigger populations.

In addition, what looks like success is likely to last only as long as the small groups involved can remain united in embracing the objectives of the projects. The clan-based societies of the Western Pacific, where these projects are located, have a mixed record in sustaining development projects for long periods.

Lesson 4. Yaeda-Eyasi Landscape project, Tanzania

By all accounts, Carbon Tanzania is doing well with this much bigger project. According to Jodoin, 2017, p. 164), the Indigenous rights and knowledge of the Hadza were properly recognised during the design of the project, and that the project stood out in Tanzania for its implicit recognition of an Indigenous people, which is normally possible under the National REDD+ Strategy. Some 60% of revenue is paid to the participating communities in the form of pay for Village Game Scouts, community benefits, and health and education training costs. In 2022-2023 this amounted to 1,258,092,878 TZS, or about USD 480,000 (Carbon Tanzania, 2023, Annex 2). It seems a good income for the project, though some has to be ceded to third parties. For

example, 5% of the community income was being paid to the district government up to 2020, who had been taking action to remove illegal settlers from the protected areas. In 2020, the communities agreed to raise this to 10% in recognition of this.

Commentary around projects in Tanzania suggest that this is the only successful project with predominantly Indigenous participation in a jurisdiction where such groups normally face obstacles of recognition.

What can be learned

Carbon Tanzania's project design is a model that could well be replicated elsewhere when a large-scale project involving Indigenous participants has to be set up. The project is broken down into communities, structured training with a definite end in mind is provided, in this case to create a cadre of Village Game Scouts to patrol the sections of the bush they are responsible for, and the income appears to be adequate to cover costs, wages for the scouts, and various community programs as decided by the village-level committees.

Other projects (see below) may follow similar procedures, but where activities cannot be properly funded, they are not sustainable.

Lesson 5. Carbon project contributions to the SDGs when there is extreme poverty

VISTA, the Gold Standard, and Plan Vivo all require project proponents to show how a project will contribute to the SDGs, while the CCB standard has a requirement at Community Gold level that projects be "explicitly pro-poor". In the case of VISTA and the Gold Standard, the requirement is weak: showing contributions to a minimum of a single SDG and three SDGs is the minimum, respectively. Plan Vivo has a varying requirement: compliance with the basic standard requires contributions to six, but at the "portfolio level" ten or more. Plan Vivo says projects using its standard claim that they contribute to an average of eleven.

However, an inspection of project reports using any of the standards shows that the claims are seldom backed up with evidence. When evidence is provided, it is far more likely to be a remote sensing analysis to show the benefits to vegetation cover – which relates to SDG15 "Life on land" – than any of SDGs 1-6 ("No poverty", "No hunger", "Good health", "Quality education", "Gender equality", "Clean water and sanitation"). Saying that a project has rebuilt a health centre or provided school bursaries is not the same as demonstrating reductions in mortality, disease incidence or an improvement in the literacy rate. Expenditures on these things are inputs, whereas what is required in the way of evidence is outcomes. Though the creators of the standards might argue that making inputs is enough to say that "contributions" have been made, without follow-up we cannot know if the contributions were positive ones. Indeed, plenty of cases can be found in global development where large amounts of money have been spent but where metrics have gone backwards (e.g. Howes et al., 2014).

The paucity of hard evidence of SDG indicator improvements is brought into sharp focus when a project area includes people living in extreme poverty. The Central Sumatran and Sahel Plan Vivo project communities had per capita incomes of, on average, USD 1.24/day (Durian Rambun) and USD 1.60/day, below the World Bank's 2011 international extreme income poverty line of USD 1.90/day, which was applicable in 2016-17 when these projects started (cf. World Bank, 2022). Apart from anything else, it is hard to credit projects with a genuine standard of FPIC when this level of economic disadvantage persists (see also Lesson 9).

UNDP's Multidimensional Poverty Index is a useful non-income measure. Burkina Faso's national score of 0.523, measured in 2010, is the world's second worst. It correlates with high levels of child and maternal mortality, low literacy and meagre household assets, such as poor access to clean water and unimproved sanitation (UNDP, 2021). Indonesia's national score is very good at 0.014, but conceals large subnational inequalities. By way of comparison, Hamago et al. (2023) published data for rural communities in Papua New Guinea of varying remoteness and of a similar size to the Central Sumatran carbon project communities. The country's national score is 0.263, but only one out of 25 communities in the survey matched this, while 14 had MPI scores of over 0.500 indicating extreme rural poverty similar to that seen in Burkina Faso (Hamago et al., 2023, Figure 5). The Central Sumatran project communities are likely to have more in common with the rural Papua New Guinea villages in this survey than with Indonesia as a whole.

The 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015, for which the SDGs are the quantitative metrics, bears directly on carbon projects in areas experiencing extreme poverty. Key among its guiding principles is "Leave No One Behind".¹⁹ The upshot is that it is not enough for development interventions to merely assist poor people, they must be assisted *to escape from poverty*. This requires much better data across all arenas of global development:

The commitment to leave no one behind calls for greater granularity of data, quantitative and qualitative analysis, to design evidence-based interventions that identify, empower and support the most vulnerable and address root causes (UN SDG Group, 2019, p. 18).

Small interventions like carbon projects are no exception. They also need to raise their standard of data collection and analysis (see also PCLG, 2007). Related issues underlie the multi-institution Peruvian Amazon Rural Livelihoods and Poverty (PARLAP) Project (Coomes et al., 2016; Gonzales Tovar & Hajjar, 2024; see also Poissant et al., 2024, in relation to community forest management and fairness).

What can be learned

A key observation is that very few carbon projects report adequately on what they are doing to reduce poverty.

When participants are experiencing extreme poverty, it is insufficient to merely *state an aim* that a carbon project contribute to particular SDGs. Practical steps should be set out for how progress with the poverty-reducing SDGs is intended to be achieved, what data will be collected to monitor outcomes and, if they fall short, what corrective actions will be taken.

If participants are living below the nationally defined poverty threshold at the start of a project and have no realistic likelihood of being lifted out of poverty after the elapse of a reasonable period (for example, five years) from the start of the project, it should be questionable whether it is viable to persist with it. FPIC is implicitly placed in jeopardy if economic disadvantage persists.

Unfortunately, we see projects like those in Central Sumatra trying to press on instead of admitting they cannot do enough (or cannot encourage the responsible governments) to help their communities, or like

¹⁹ <https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind>.

REACH Italia seemingly unable to mention that it must halt its activities until peace returns. These are situations to avoid.

Lesson 6. Projects can go off-track beneath the eyes of monitoring programs

The Kasigau Corridor Project, started in 2010, merits extended treatment. It was the world's first REDD+ project and has received 21 million VCU 2011-2024. It is run by Wildlife Works, a California-headquartered environmental organisation, and is proposed for VISTA validation (Table 3).

The project area covers 200,000 hectares between the Tsavo East and Tsavo West National Parks in southern Kenya (Map 3). Wildlife Works bills it as a “new method of conservation: one that places communities at the center of decision making” and works by “holistically partnering with the local communities”.²⁰ After ten years of operation, UN-REDD said that the Kasigau Corridor project was the first in the world to be certified under the UN-REDD Voluntary Carbon Standard and was now “a great source of carbon credits”. In UN-REDD's account, income is shared 50:50 between investors and the local community (Dierckxsens, 2020). There are numerous project evaluation documents on the Verra website.²¹ Shell, Netflix, Audi, Barclays and BNP Paribas are known to be among the buyers of carbon offsets originating with the project.

The project area, where approximately 100,000 Kasigau-Taita or Wakasigau people live, is a part of Taiti Taveta County in Kenya. Their villages are primarily made up of subsistence farmers cultivating maize, beans and sorghum, and keeping goats, sheep and donkeys. The Taita, of whom the Kasigau-Taita are a subtribe, are far less numerous than the eight Kenyan groups with populations of over one million (Abraham, 2012). They are a distinct ethnic group specifically located in and around the project area, though not specifically a minority or isolated group in world terms.

The project has a strong online presence, with sites devoted to “community stories of change”,²² decision-making by the local communities,²³ ratings against the SDGs²⁴ – including SDG5 Gender equity and women's empowerment – and an 11 minute YouTube video introduced by Barack Obama (Netflix, 2022), all of which paint a rosy picture of the project.

The first question to pose is, can the Kasigau Corridor project's self-assessment of itself to be “community partnered” be rated highly in terms of Arnstein's Ladder of Participation (Figure 3)?

A clue is that a recent social vulnerability assessment of five villages in the heart of the project area failed to mention the REDD+ project at all (Gathongo & Tran, 2020). Historians point out that a long-standing cause of underdevelopment is the forced exile of the Wakasigau to the coast near Mombasa in 1915 during WWI. They were only able to return to their lands in 1937, evidently to designated reserves after most of the land had been subdivided into ranches.

Following Kenya's independence, the ranches were acquired by different kinds of owner: five by single or joint owners; four by private companies limited to 50 shareholders; and four by agricultural companies known as

²⁰ <https://www.wildlifeworks.com/kasigau-kenya>.

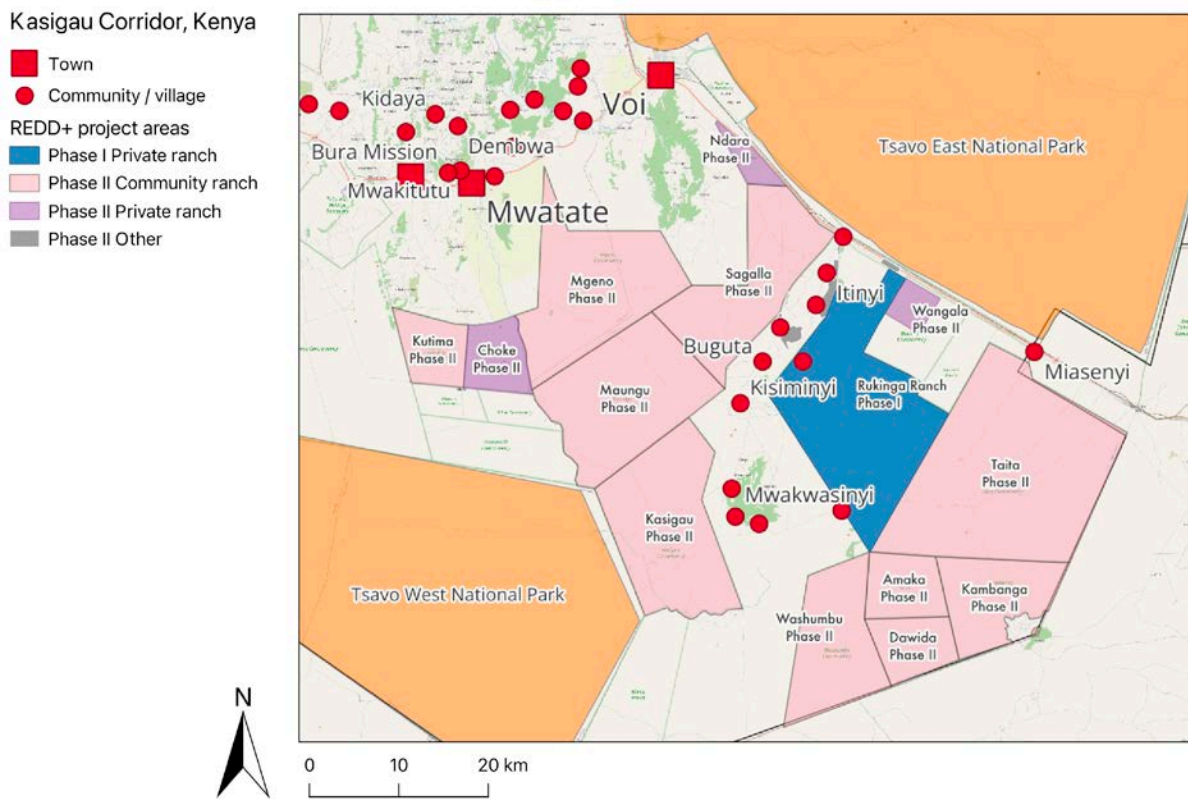
²¹ <https://registry.verra.org/app/projectDetail/VCS/612>.

²² <https://everland.earth/voice/community-stories-of-change-the-kasigau-corridor-redd-project/>.

²³ <https://www.wbcsd.org/download/file/15178>.

²⁴ <https://earthly.org/projects/forest-kasigau-wildlife-corridor>.

DACs (Directed Agricultural Company) with more than 50, typically urban dwelling shareholders. Most of the ranches had failed by the 2000s and the Kasigau carbon project was set up over ranches with no residents.



Map 3. Kasigau Corridor REDD+ Project Phases I and II, Taita Taveta County, Kenya.

Source: Compilation by author. Project geospatial data from

<https://registry.verra.org/app/projectDetail/VCS/612> and other sources.

Phase I of the project only involved a single privately owned ranch called Rukinga and its owners were the only beneficiaries. In Phase II, Wildlife Works entered into contractual agreements with ranch owners where it would manage the REDD+ project, they would receive one third of the revenue, and the community the rest (Bernard et al., 2014). During field research in 2013-14, Chomba et al. (2016) found that the “one third ratio” was a common understanding: that is, Wildlife Works, the ranch owners, and the non ranch-owning communities should receive a third of the revenue each.

In practice, however, operational costs consumed more than half the income (53%) from carbon sales in the 2010-11 period. After the ranch owners received their guaranteed third (33%), this left the communities with only 14% of the revenue to divide among five administrative locations. Over the two years, each of the five received USD 135,000 to spend on development projects, amounting to no more than USD 8 per household (Chomba et al., 2016, p. 207).

In terms of the project’s outreach, Von Hagen et al. (2023) surveyed 206 farmers in six communities around the Rukinga Wildlife Sanctuary (in the centre of the project area). Where the Kasigau project said it was trying to present alternative crops, less likely to be damaged by elephants, the researchers found that their respondents were interested in learning more, but 55% had no training in farming techniques outside what they had learned at school, and were continuing to grow the crops most likely to sustain damage.

This lends a rather different understanding to the phrase “holistically partnering with the local communities” used by Wildlife Works in its promotional material. We suggest that the situation on the ground barely meets Arnstein’s Rung 3 “Informing”. It certainly places the project well within the tokenism bracket.

The next issue is that a joint investigation by the Amsterdam-based Stichting Onderzoek Multinationale Ondernemingen and the Kenya Human Rights Commission recently brought to light a sexual abuse scandal. Male staff and rangers working for Wildlife Works at the project were exploiting their positions of power to demand sexual favours from female staff and other women linked to the project, a situation that had persisted for over a decade (SOMO & KHRC, 2023). In this period, some eight Monitoring and Implementation Reports were issued by Wildlife Works, meeting the VCS requirements and those of the CCB Standards, Second Edition.

Tellingly, the project was validated as CCB Climate Gold and Biodiversity Gold, but not Community Gold. It may have meant that the assessors – in error – thought they did not have to examine impacts on the community.

Wildlife Works terminated several staff (Korchinsky, 2023, November 3) and the project certifier, Verra, responded by suspending credit issuances (Verra, 2023, November 3). Verra found that the allegations were essentially true and listed the Verified Carbon Standard rules that had failed. Critical examples were a grievance handling mechanism that was able to be subverted by the terminated HR Manager and the vilification of community members by security staff when grazing animals or collecting firewood (Verra, 2024, February 1).

Satisfied by Wildlife Works corrective actions, Verra resumed issuing VCUs in March 2024.

What can be learned

The scandal (a) exposes the shortcomings of what can be described as the template-based, “tick box” monitoring in place for both the Verra and CCB standards and (b) exposes the project for a lack of in-built checks and balances.

Measurement, reporting and verification (MRV) is essential to ensure that well-thought-out standards are genuinely being followed. However, they are only as effective if the MRV authors have the requisite experience and their reports are read with a critical eye. In most situations, this means that peer review is required, something that is generally absent from the requirements of the standards organisations. In the Kasigau case, nothing happened until organisations at arm’s length detected that something was amiss.

We can reinforce the need for checks and balances before problems escalate to what was seen here. A pre-emptive strategy is to prioritise *participatory decision-making* and an *enhanced role for women in decision-making*. A more democratised system ought to have defended against program staff with too much power, as was apparently the case at Kasigau.

Lesson 7. The effect of minimising problem issues in project reports

The previous discussion concerned a scandal that went unnoticed during monitoring. A different situation can arise where both project and monitoring staff are well aware of problem issues, but project websites and published reports fail to reflect what is going on.

In 2024, the Rimba Raya Biodiversity Reserve Project, world-renowned for its protection of orangutan habitat, had its permit to operate revoked by the Indonesian government. The project's local operator, and the Hong Kong-based organisation that sells its carbon credits, have both maintained silence in the months that has elapsed since the revocation. This is not a good sign for an organisation that is highly market-dependent.

Likewise, REACH Italia's Sahel Project has confronted problems of conflict, but this is reflected in a muted fashion in the presentation of its work to the public. Full-blown armed conflict – nothing to do with REACH Italia's work – has rendered travel in the area extremely hazardous, but its 2018-2020 annual report says "during this monitoring period, no conflicts were reported" (REACH Italia, 2021, p. 11). However, this is because the CCB monitoring requirement is to report the "number of conflicts *related to natural resource management*", the answer to which was, correctly, none. There is an allusion to other kinds of conflict, namely in a summary of telephone interviews it was noted that "insecurity is present, linked to the HANI (Unidentified Armed men)" (REACH Italia, 2021, p. 28), but the meaning of "HANI" is not explained. It refers to "Hommes armés non identifiés", or unidentified armed men, as international press reports make clear (e.g. Courrier International, 2021, December 6). To be fair, the annual report does mention terrorism and that the security situation has "considerably reduced the project's field activities" (2021, p. 4), but the website is strikingly silent, perhaps out of concern for the risk to its fund-raising activities at home in Europe.

Rimba Raya's and REACH Italia's apparent inability to properly say what going on highlights behaviours that are seen across all carbon projects we have examined for this report, and whichever registries they are listed on:

- Inconsistency in the completeness of baseline project documentation. For example, a pre-project socioeconomic survey is required but is not always published with the project description document. If so, it is impossible to evaluate claims of community benefits. A map of the project area in a digital file format is usually provided by uploading a KML (Google Earth) file to the registry. Rimba Raya is accused of venturing outside its permit area, but it has supplied no map file.
- Rimba Raya's most recent CCB validation statement is four years old (AENOR International, 2020). A more recent CCB monitoring report was written by a Minneapolis-based carbon project services company, but has only been released in Bahasa Indonesia (EP Carbon, 2022). Verra says that, in the first instance, "documentation shall be in English" (Verra, 2023, December 11).
- Some projects have informative websites and voluntarily publish annual reports. Many others do not or, like REACH Italia (and indeed Cool Earth), shape what is on their websites to maximise fundraising. But none of the registries ask for excellence in fund-raising. They are carbon project registries and ask for completeness in monitoring and reporting.

What can be learned

While there is obviously a cost overhead in reporting more fully, building up a coherent reporting suite over a period of years is best practice for any organisation in any sector. If externally-caused crises strike, whether due to a collapse in market confidence, conflict, or a pandemic, organisations that are best placed to explain themselves stand to be the most resilient and to recover fastest.

Lesson 8. Can an Indigenous-led model be found outside the LDCs?

With hesitation, we turn briefly to consider whether lessons can be learned from Indigenous governance of projects in a developed economy: the Australian Carbon Credit Unit scheme, one of the voluntary schemes endorsed by the International Carbon Reduction and Offset Alliance (Table 1).

The scheme is administered by the Clean Energy Regulator (CER), a government statutory authority. It gives accreditation to carbon projects, requires project proponents to follow methods developed by an Emissions Reduction Assurance Committee,²⁵ and takes responsibility for auctioning the resulting credits, known as Australian Carbon Credit Units (ACCUs).

It is not an example of a fully open market, because Australia's federal government has historically purchased most ACCUs issued since the scheme began out of a taxpayer-funded Emissions Reduction Fund (ERF).²⁶ Non-ERF purchases have increased to account for 8.3% of ACCUs sold in recent data.²⁷ The spot price averaged AUD 35/tCO₂-e (USD 23/tCO₂-e) in 2022-23, generally higher than the international price for VCU. The CER also keeps a registry of Kyoto-compliant Emission Reduction Units (ERUs) which can be traded internationally.

The scheme is instructive because of (a) its establishment as part of mechanisms set out in the UNFCCC framework and the science-backed nature of compliance, (b) the substantial number of Indigenous-led projects accredited to the scheme.

As of February 2024, the CER had accredited 2074 projects of which half (1035) were vegetation projects, a quarter (580) were on agricultural land, and about 5% (100) were for savanna burning.²⁸

Savanna burning projects are especially attractive to Indigenous groups. Typically, Aboriginal rangers go out on savanna country to do fine-scale, early dry season mosaic burning to lower the scale and intensity of late dry season wildfires. It is of particular interest that, of 100 savanna burning projects, 30 have been operated by 21 Aboriginal Shire Councils, Indigenous corporations,²⁹ and Indigenous-owned companies. On Arnstein's Ladder of Participation, the projects would rate very highly, say on Rung 7 (Aboriginal corporations and the like operate under national laws).

The scheme has been subject to repeated government-commissioned reviews (CCA, 2014a/b, 2017, 2020; King et al., 2020; Roxburgh et al., 2020; Chubb et al., 2022; AAS, 2022), which generally offer endorsement.

But two harsh evaluations have recently been made at the Australian National University. One researcher found that 66% of projects, accounting for 85% of ACCUs issued, should be rated as "poor" or "very poor" (Philippa, 2022). Macintosh and colleagues looked at 182 projects across 3.4 million hectares of projects and found only a small (3.6%) increase in forest cover and a negligible increase (0.8%) in sparse woody and forest cover. They said their findings added to a growing literature highlighting the potential for carbon offset

²⁵ <https://www.cleanenergyregulator.gov.au/ERF/Pages/Method-development.aspx>.

²⁶ <https://www.cleanenergyregulator.gov.au/Infohub/Markets/quarterly-carbon-market-reports/quarterly-carbon-market-report-june-2023>.

²⁷ <https://www.cleanenergyregulator.gov.au/Infohub/Markets/quarterly-carbon-market-reports/quarterly-carbon-market-report-june-2023>.

²⁸ <https://www.cleanenergyregulator.gov.au/ERF/project-and-contracts-registers/project-register>.

²⁹ "Indigenous corporation" here means a body in the name of an Indigenous group registered with the Office of the Registrar of Indigenous Corporations, whereas "Indigenous-owned company" refers to a business entity registered under the *Corporations Act 2001*.

schemes to credit abatement that is “non-existent, non-additional and potentially impermanent” (Macintosh et al., 2024).

What can be learned

Indigenous-led projects in Australia (and Canada, USA etc) may provide models that carbon projects in the Global South could copy in some areas, notably in how to run ranger programs, in the use of participatory mapping, and on specialist topics such as traditional ecological knowledge and Indigenous fire management.

On the scientific side, it would be incautious to look in this direction for evidence of success relevant to other jurisdictions. The legislative, administrative and scientific expertise provided by the Australian government and Australian research institutions is a huge subsidy to these projects, which is unlikely to be fully replicable in the Global South. This is, of course, not to mention the fact that taxpayer’s money is used to buy almost all the credits after they are earned. In short, the governance overheads of the Australian scheme are unrealistic in developing regions.

Lesson 9. The structural grounds of best practice FPIC and project governance

Conservation International has published an *Indigenous Negotiations Resource Guide* which the authors describe as a “tool for Indigenous communities to operationalize their right to FPIC and to effectively engage in negotiations when they choose to do so” (McElhinny et al., 2021). This is a technical manual for an audience of Indigenous communities with advice on how to develop capacity to negotiate, how to maintain community unity while doing so, and how to assess whether a negotiated agreement is fair or not.

It would be redundant of us to attempt to improve on the strategies set out in the guide. Our contribution to the subject is to look at the way projects are set up, the nature of relationships between proponents and participants, and local conditions that assist or obstruct the performance of the projects in practice – in other words, at the *structural conditions* that permit project agreements to be grounded in FPIC and subsequently act as a guard against *agreement failure*.

Firstly, the security of land tenure enjoyed by a project community is a critical element. Project documentation in the “small farmer” projects in Kenya shows that only some of the farmers have titles to their land. The land tenure literature on Kenya shows that, setting aside recent settlers, many others living on their ancestral land have fallen foul of a long legacy of failed titling schemes (e.g. Muthama et al., 2019). The absence of a confident right to enter into dealings over land throws any negotiated agreement, whether excellent by FPIC standards or not, into jeopardy.

Secondly, the strength and stability of local governance structures pass through to the governance of development projects of any kind. Where they are clear and uncontested, a strong platform is established for negotiated agreements to be given a high rating and, as projects are implemented, provide invaluable assistance in such matters as resolving disputes. This is seen in the Central Sumatra projects, where village-level governance is well-defined and agreements appear to be solid even if the projects can be faulted on other grounds.

Thirdly, local culture and customary land law provides a form of social capital that can either assist or obstruct development projects. Among the matrilineal Minangkabau communities of the Gula Gula Food Forest Program in West Sumatra, gender equality, the concept of mutual help and village consensus, and their

indigenous *Adat* law system are cultural elements that lend assistance to negotiated agreements by helping resolve disputes and by reducing inequality among the participants. The small scale of the Solomon Islands and Vanuatu project communities is an advantage for the projects in those countries. On the other hand, the fact that land grabbing has been a scourge of the Solomon Islands, Vanuatu and Papua New Guinea for decades indicates that custom can also create a vulnerability to corruption and state capture (McDonnell et al., 2017),

Fourthly, we have argued that extreme poverty may render agreements meaningless whether they were entered into following best practice FPIC procedures or not. This is acutely seen in projects where conservation agreements are willingly entered into, but either break down or are not renewed as participants turn to economically more productive livelihood strategies because the assumptions they were based on – the most relevant one being that carbon credit income would be ample enough to improve living standards – fail.

There is a further argument that the “Leave No One Behind” principle of the 2030 Agenda for Sustainable Development carries a responsibility to help lift people out poverty. If a carbon project cannot generate sufficient income to achieve this, there is a moral argument that the agreements it is based on have failed.

Fifthly, projects may have genuine consent from the immediate community, but may fail through the actions of disenchanted or grievance-harbours individuals beyond them, or even by political factions at some distance from the project. The case of the Crater Mountain Wildlife Management Area on the land of the Gimi people in Papua New Guinea is an example. USAID provided funding to the Biodiversity Conservation Network test the hypothesis “if communities can benefit economically from the biological resources that they manage or control, then they will take action to counter internal and external threats to these resources” (Salafsky and Wollenberg 2000: 1422). The hypothesis held up well in the 1990s and the project funded training in field ecology for local university students. But over time facilities originally supported by the project – a health post, school and water supply – fell into disrepair. Eventually, men from a Gimi village attacked one of the field stations. Their grievance was that instead of the project being a “road for development”, in their eyes it had acted as a “roadblock to development” (West and Kale 2015: 167-170). In reality, the situation at Crater Mountain reflected the development failures of the wider society. Was this an FPIC failure? Arguably no, because the people the project immediately worked with gave their willing consent. On the other hand yes, because it is probably the case that the attackers felt that “the biological resources” referred to in the hypothesis extended to their own land, as is frequently found in wide forested areas with ill-defined boundaries.

Sixthly, we have argued for better documentation of projects and progress with development. Failing to keep all the details up-to-date leaves a project exposed to accusations that it is the proponents who have broken their side of agreements and have therefore forfeited FPIC. It is a defence against this to be diligent in publishing annual project reports and commissioning effective monitoring work, including accurate maps, population figures and socio-economic data (Lesson 7).

What can be learned

These are six elements that create the platform for FPIC before negotiations are entered into and that help maintain the validity of FPIC after negotiations have been completed. Some of things speak to the initial choice of a project site, others to the social performance of a project while it is running or, in the Crater Mountain case, to late-project legacy issues. But they all have to do with FPIC conceived in the broadest sense.

Applying these lessons to the Awajún carbon project

Practical actions can be applied to the Awajún project drawn from the issues highlighted above, all of which can help maintain a high standard of FPIC. The following list surely risks advocating (and simplifying) activities that are already in hand (BHP Foundation, 2023), but some pointers may be helpful:

<u>Lesson</u>	<u>Action</u>
#1	a. Find out more about the best examples in the seventeen projects examined. b. Enrol the Awajún project in one of the enhanced registries and ensure its reporting requirements are followed diligently.
#2	a. Carefully examine whether the leadership structures of the partnering organisations, probably established for different purposes, are likely to serve the project effectively. b. Examine whether routine decision-making is delegated to community committees and if this works effectively. c. Is there a strong involvement by women? If not, how can women have a greater say? d. Are there rangers (or similar) active – actually moving about on a daily basis – on the ground in the project area?
#3	a. Find out more about the approach of Natural Resources Development Foundation and see if they can be scaled up. b. Find out why the neighbours of the Nakau Programme's projects have allowed logging and consider what early interventions could have avoided this.
#4	a. Find out more about Carbon Tanzania's training programmes and consider what aspects are relevant to the Awajún. b. Does some project income have to be ceded to local authorities to incentivise them to help the Awajún enforce their territorial boundaries?
#5	a. Use appropriate survey methods (as indicated in Landesa's 6 November 2023 concept note under "Applied Research" and drawing on the findings of Lozano & Olivari, 2023) to assess the incidence of general poverty, including low levels of education, among the Awajún and if some sections of the community are more vulnerable to poverty than others (children, women, old people, people living with disabilities etc). b. Ensure community plans ("Life Plans", cf. BHP Foundation, 2023) have components that address the most acute deficits in standards of living and assist FERIAAM in sourcing additional sources of funding to assist with implementation if necessary. c. Adopt relevant monitoring indicators that FERIAAM staff can report on to track progress.
#6	a. Many things cause conservation projects to fail. Seek out experts in development anthropology, small organisation governance, education etc to visit the project area from time to time to look "outside the box" and provide warning of existential threats. b. Regularly review the monitoring reports required by whichever registry(ies) the Awajún project is enrolled with for thoroughness and completeness.
#7	a. Ensure that website and annual reporting content is not confined to "good news stories" aimed at enhancing organisation reputations. Frank assessments of project shortcomings and challenges need to be shared. b. When adverse events occur (climate setbacks, out of control wildfires, incursions by alluvial miners, political turmoil ...), ensure that media releases are made in a timely fashion and set out clearly what has happened and when it has happened. c. Ensure monitoring and verification reports are up to date and do not redact mentions of adverse events.

<u>Lesson</u>	<u>Action</u>
#8	a. Invite leaders from Indigenous-led projects globally, including Australia, Canada etc, to share their experiences with the Awajún while remaining aware that in some jurisdictions scientific and institutional support may exceed that available in Peru. b. Cherry pick such projects for experiences with ranger programs, participatory mapping, the application of traditional ecological knowledge, Indigenous fire management etc.
#9	a. Seek evidence that land tenure is as secure as reported: what exceptions are there? How are non-Awajún accommodated? How do absentee Awajún (if this is a significant phenomenon) affect those who reside in the project areas etc? b. Seek evidence that local governance structures serving the Awajún are functioning and, if not, find a way of bridging gaps. c. Consider how local custom and social organisation assist the project and support them. If there are cultural vulnerabilities, e.g. in conflict resolution, find a way to strengthen these areas. d. Address pockets of poverty when detected (see “Life Plans”) and design interventions so project participants do not need to adopt environmentally damaging livelihood strategies to escape poverty: “Leave No One Behind”. e. Be vigilant for disenchanted or grievance-harboursing factions on the edge of the project or beyond it. Do people outside the project communities, Awajún or non-Awajún, claim rights in the project land? How do they react when territorial boundaries are enforced? f. Do not waver in publishing annual project reports, commissioning effective monitoring work, and maintaining accurate maps, population figures and socio-economic data. Document the project!

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APPENDIX A

ABBREVIATIONS AND ACRONYMS

ACCU	Australian Carbon Credit Unit.
ACMI	Africa Carbon Markets Initiative: https://africacarbonmarkets.org .
ACR	American Carbon Registry: https://acrcarbon.org .
ACHPR	African Commission on Human and Peoples' Rights: https://achpr.au.int .
ADD	Avoided Deforestation and Degradation. Typically in the context of PES payments to ward off clear-felling loggers.
AFR100	African Forest Landscape Restoration Initiative: https://afr100.org .
AFOLU	Agriculture, Forestry, and Other Land Use.
ALFA NT	Arnhem Land Fire Abatement Northern Territory.
AMPF	Alto Mayo Protection Forest (Bosque de Protección Alto Mayo), Peru.
APIWTXA	Associação Ashaninka do Rio Amônia, Acre, Brazil: https://apiwtxa.org.br .
BTR	Biennial Transparency Report. A UNFCCC requirement of the Enhanced Transparency Framework.
CAR	Climate Action Reserve: https://www.climateactionreserve.org .
CATS	Carbon Assets Tracking System. The Forest Carbon Partnership Facility's carbon credits database: https://cats.worldbank.org .
CCBA	Climate, Community & Biodiversity Alliance. Group of five NGOs: CARE, Conservational International, The Nature Conservancy, Rainforest Alliance, Wildlife Conservation Society. Donors include BP, Hyundai and Intel. https://www.climate-standards.org .
CCBS	Climate, Community & Biodiversity Standards. Versions: 1.0, 2005; 2.0, 2008; 3.0, 2013; 3.1, 2017. https://www.climate-standards.org/ccb-standards/ .
CCPs	Core Carbon Principles.
CDM	Clean Development Mechanism. Created by the UNFCCC Kyoto Protocol.
CEMIRIDE	Center for Minority Rights Development. Kenyan NGO: https://www.cemiride.org .
CER (UNFCCC)	Certified Emission Reduction per UNFCCC Kyoto rules (1 CER = 1 tCO ₂ e).
CER (Australia)	Clean Energy Regulator. Australian statutory authority.
COICA	Coordinadora de las Organizaciones Indígenas de la Cuenca Amazónica (Coordinating Body of Indigenous Organisations of the Amazon Basin). Founded in Lima in 1984. https://coicamazonia.org .
COP	Conference of the Parties (in the context of the United Nations Framework Convention on Climate Change).
CPI-Acre	Comissão Pró-Índígenas do Acre. Brazilian civil society organization founded in 1979, with headquarters in Rio Branco, the state capital of Acre. Its mission is to support the Indigenous peoples of Acre: https://cpiacre.org.br .
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation.
DOE	Designated Operational Entity, an organisation accredited to the Clean Development Mechanism for verifying that CDM projects are achieving emission reductions in accordance with a CDM-approved methodology. A list is given here: https://cdm.unfccc.int/DOE/list/index.html .
DAC	Directed Agricultural Company (Kenya).

ETF	Enhanced Transparency Framework. A UNFCCC requirement stemming from the Paris Agreement and building on the MRV system: https://unfccc.int/reporting-and-review#ETF .
FCPF	Forest Carbon Partnership Facility. World Bank administered partnership of governments, businesses, civil society, and Indigenous people's organizations. Includes FCPF Carbon Fund: https://www.forestcarbonpartnership.org .
FCPF Standard	The Forest Carbon Partnership Facility's verification standard for REDD+ activities.
FERIAAM	Federacion Regional Indigena Awajún del Alto Mayo (Regional Awajún Indigenous Federation of Alto Mayo).
FLR	Forest Landscape Restoration.
FONAREDD	Fonds National REDD – National REDD+ Fund of the Democratic Republic of Congo: https://fonaredd-rdc.org .
FPIC	Free, Prior and Informed Consent.
Fundo Amazônia	Amazon Fund, a Brazilian government initiative managed by the National Bank for Economic and Social Development and founded in 2008: https://www.amazonfund.gov.br .
GCF	Green Climate Fund: https://www.greenclimate.fund .
GEF	Global Environment Facility: https://www.thegef.org .
GS-VER	Gold Standard Verified Emissions Reduction. Credit unit in the Gold Standard certification scheme (1 VER = 1 tCO ₂ e).
ICAM	Iniciativa de Conservación Alto Mayo. Conservation International-led carbon project in the Alto Mayo Protected Forest, Peru.
ICROA	International Carbon Reduction and Offset Alliance: https://icroa.org/ . Trade body representing organisations operating in the voluntary carbon markets.
ICVCM	Integrity Council for the Voluntary Carbon Market: https://icvcm.org .
ID-RECCO	International Database on REDD+ projects and programs Linking Economics, Carbon and Communities: https://www.reddprojectsdatabase.org .
IEF	Indonesian Environment Fund (Badan Pengelola Dana Lingkungan Hidup): https://web.bpdlh.id .
ITMO	Internationally Transferred Mitigation Outcome. Government-to-government carbon credit unit derived from Article 6.2 of the 2015 Paris Agreement (1 ITMO = 1 tCO ₂ e), recorded in a central registry, for activities beginning in 2021. The first agreement was signed between Peru and Switzerland in 2020 (Ministerio del Ambiente, 2020). As of December 2023, some 130 projects were being evaluated. ITMOs can be bought by countries to comply with their Paris Agreement Nationally Determined Contributions (NDCs).
MRSE	Mecanismos de Retribución por Servicios Ecosistémicos (Peru – Remuneration Mechanisms for Ecosystem Services). MRSE agreements are recorded in the Registro Único (Single Registry) at the Ministerio del Ambiente (Ministry of the Environment), following Law No. 30215, Law of Remuneration Mechanisms for Ecosystem Services, passed in 2016: https://www.minam.gob.pe/disposiciones/decreto-supremo-n-009-2016-minam/ . (Also referred to as MERESE.)
MRV	Measurement, Reporting and Verification. A UNFCCC requirement stemming from the Kyoto Protocol (now enhanced by the ETF): https://unfccc.int/process-and-meetings/transparency-and-reporting/support-for-developing-countries/consultative-group-of-experts/measurement-reporting-and-verification-technical-material .

NDC	Nationally Determined Contribution. An emissions reduction commitment made by a state party to the 2015 Paris Agreement.
NEPAD-AUDA	New Partnership for Africa's Development – African Union Development Agency: https://www.nepad.org .
NRDF	Natural Resources Development Foundation.
OTDF	Ok Tedi Development Foundation. A foundation funded directly by Ok Tedi Mining Limited in Papua New Guinea, to foster development in the Ok Tedi gold and copper mine area of operations.
PARLAP	Peruvian Amazon Rural Livelihoods and Poverty Project. Collaboration among McGill University, the University of Tokyo, and the University of Toronto: https://parlap.geog.mcgill.ca .
PDD	Project Design Document. Initial description of a carbon project submitted to a registry for validation.
PES	Payment for Ecological Services.
PIACI	Pueblos Indígenas en Aislamiento Voluntario y Contacto Inicial (Indigenous Peoples in Voluntary Isolation and Initial Contact).
PNGSDP	PNG Sustainable Development Program Company. A shareholding body set up in 2001 to receive dividends from the Ok Tedi gold and copper mine in Papua New Guinea, formerly received by the mine's previous majority shareholder, BHP.
PVC	Plan Vivo Certificate, credit unit in the Plan Vivo scheme (1 PVC = 1 tCO ₂ e).
REDD+	Reduced emissions from deforestation and forest degradation in developing countries: https://redd.unfccc.int .
REDD+ SES	REDD+ Social and Environmental Standards: https://www.cbd.int/doc/meetings/for/wscb-redfd-lac-01/other/wscb-redfd-lac-01-redd-social-en.pdf
SDGs	The United Nations Sustainable Development Goals, launched in 2015.
SERNANP	National Service of Protected Areas, Peru (Servicio Nacional de Áreas Naturales Protegidas).
SPREP	Secretariat of the Pacific Regional Environment Programme: https://www.sprep.org/ .
tCO ₂ -e	Tonne of carbon dioxide equivalent emissions.
UNFCCC	United Nations Framework Convention on Climate Change.
UNPFII	United Nations Permanent Forum on Indigenous Issues.
UN-REDD	United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation, a collaboration between the Food and Agriculture Organization of the United Nations, the United Nations Development Programme, and the United Nations Environment Programme.
VCM	Voluntary Carbon Market.
VCS (Verra)	Verified Carbon Standard: https://verra.org .
VCS (UN-REDD)	Voluntary Carbon Standard. Early UN-REDD verification standard: https://www.un-redd.org/glossary/voluntary-carbon-standard-vcs .
VCU	Verified Carbon Unit. Credit unit in the Verified Carbon Standard scheme (1 VCU = 1 tCO ₂ e).
VISTA	Sustainable Development Verified Impact Standard: https://verra.org/programs/sd-verified-impact-standard/ .

APPENDIX B

SELECTION OF REDD+ AND CARBON PROJECT-RELATED WEBSITES WITH DATA ON CARBON PROJECTS

What	Comments
International Database on REDD+ projects and programs Linking Economics, Carbon and Communities (ID-RECCO): https://www.reddprojectsdatabase.org .	Online database and Excel data download list >4000 REDD+ projects. Can be searched for <i>Indigenous-partnered</i> projects.
Berkeley Voluntary Registry Offsets Database (So, Haya & Elias, 2023).	Excel spreadsheet listing over 8500 carbon projects in four voluntary offset registries (each of the registries can searched separately): American Carbon Registry (ACR), Climate Action Reserve (CAR), Gold Standard, and Verra (VCS).
CDM Monitoring and Issuance Database, Institute for Global Environmental Strategies, Ministry of the Environment, Japan https://www.iges.or.jp/en/pub/iges-cdm-monitoring-and-issuance-database/en .	Excel spreadsheet listing 4,110 Clean Development Mechanism projects and their Certified Emission Reduction issuances up to November 2023 (Tsukui, A., Louhisuo, M., & Azuma, M., 2024).
Verified Carbon Standard (VCU)-labelled projects: https://registry.terra.org .	Focus on emissions reduction verification.
Climate, Community & Biodiversity Standards (CCBS)-labelled projects: https://registry.terra.org/app/search/CCB .	Broader consideration of community and climate change impacts.
Gold Standard registry: https://registry.goldstandard.org/projects .	As of April 2024, 3308 projects are listed, of which over 50% are for domestic energy improvement, mostly in developing countries. Only 30 relate to afforestation / reforestation in developing countries and have passed validation.
Sustainable Development Verified Impact Standard (VISTA)-labelled projects: https://registry.terra.org/app/search/SDVISTA .	Additional standard to list SDG benefits of carbon projects.
Lima REDD+ Information Hub: https://redd.unfccc.int/info-hub.html .	Tabulates activities and assessments in REDD+ countries for various years 2011-2020.
Carbon Assets Tracking System. The World Bank Forest Carbon Partnership Facility's carbon credits database: https://cats.worldbank.org .	Public data is limited to Mozambique, Costa Rica, Ghana, Vietnam and Madagascar (March 2024).
African Forest Landscape Restoration Initiative (AFR100): https://afr100.org . Some linkage with the African Union's AUDA-NEPAD GeoHub https://geospatial.nepad.org/portal/apps/sites/#/auda-nepad-project-site .	Initiative to bring 100 million hectares of land in Africa into restoration by 2030. Projects can be browsed by country. Only some sub-initiatives focus on carbon projects. The geospatial portal is underdeveloped.
Africa Carbon Markets Initiative (ACMI): https://africacarbonmarkets.org .	Announced at COP27, Egypt, 2022. Little content as yet.
Australian Emissions Reduction Fund Register: https://www.cleanenergyregulator.gov.au .	Access to detailed data on carbon projects in Australia, including identification of individual projects, geospatial data, revocations, aggregated auction results. Updated weekly.

What	Comments
Global Forest Watch: https://www.globalforestwatch.org .	Offers map-based interface to deforestation hotspots, which in turn have links to media reporting on Indigenous issues.
Forest People's Programme: https://www.forestpeoples.org .	Collates media reporting on Indigenous issues, which in turn links
Digital Climate Projects Database: https://sustainabilitydigitalage.org/digital-climate-projects .	Projects can be browsed by network and country. Some are <i>Indigenous-partnered</i> projects.
Mapped: The impacts of carbon offset projects around the world (Dunne and Quiroz, 2023): https://interactive.carbonbrief.org/carbon-offsets-2023/mapped.html .	Map can be filtered to show 18 carbon offset projects in South America where Indigenous people have been affected, 12 in Africa, 2 in Southeast Asia and 2 in Oceania.

APPENDIX C

VALIDATION LEVELS OF THE CLIMATE, COMMUNITY & BIODIVERSITY STANDARDS

The CCB standards have evolved considerably since the first edition was published in 2005 (CCBA, 2005). A second edition was published in 2008 (CCBA, 2008), and a third in 2013 (CCBA, 2013). Verra took over managing the CCB standards in 2014. Contemporary projects are expected to be designed, or upgraded if they are older projects, to meet the requirements of the revised third edition (v.3.1) of the standards (Verra, 2017).

In the first edition, a project could be awarded a Gold, Silver or Approved rating, depending on the number of criteria met from four sections. For Gold, this meant satisfying all criteria from the General section, all required criteria from each of the Climate, Community and Biodiversity sections, and at least one optional criterion from each. In respect of the Community section, the required criteria were to provide evidence that there would be Net Positive Community Impacts (CM1), that Offsite Community Impacts would be mitigated (CM2) and that a Community Impact Monitoring Plan (CM3) was in design (at the project-start validation stage) or was being implemented (at the working project, verification stage). The optional criteria were evidence for Capacity Building (CM4) and Best Practices in Community Involvement (CM5).

It should be noted that a requirement in the General section was G5 Land tenure, effectively adding four more compulsory community criteria:

- There should be no significant land tenure disputes in the project area, or the project should fundamentally help to resolve these tenure issues.
- The project must not encroach uninvited on private property, community property, or government property.
- The project must not require the relocation of people, or any relocation is 100% voluntary and fundamentally helps resolve land tenure problems in the area.
- Potential “in-migration” effects must be described and proposed responses set out.

In the CCB second edition (CCBA, 2008), the Silver distinction was discarded. To attain the Gold distinction, all previous mandatory criteria had to be met, but only *one* optional criterion in a newly designed Gold Level section, comprising GL1 Climate Change Adaptation Benefits, GL2 Exceptional Community Benefits, and GL3 Exceptional Biodiversity Benefits. The Exceptional Community Benefits section re-orientated projects to becoming “explicitly pro-poor”. However, a caution is that the second edition rating system meant that a project could ignore the Community criteria and be awarded the Gold distinction on Climate or Biodiversity excellence alone.

The first release of the CCB third edition brought in two significant changes for projects seeking the Community Gold validation level. The first was:

The project is a Smallholder/Community-led and implemented on land that they own or manage, *and/or* is explicitly pro-poor in terms of targeting benefits to globally poorer communities (CCBA, 2008, p. 38; emphasis added).

The second was that the Gold level was split into separate distinctions, i.e. Climate Gold, Community Gold or Biodiversity Gold (or more than one).

Other changes were that it became mandatory for all projects to demonstrate that FPIC had been obtained from land owners and users. In the Exceptional Community Benefits section, a new standalone requirement project had to show that women could participate in decision-making and receive net positive impacts for their well-being (replacing a previous sub-clause “including women”). A benefit-sharing mechanism had to be described, and an explanation given of how Smallholders/Community members would be able to participate in the project’s governance (as opposed, typically, to an international NGO being the sole operator).

The revised CCB third edition (Verra, 2017) retains the pro-poor and community-led requirements (“The project is a smallholder/community-led and implemented on land that they own or manage and/or is explicitly pro-poor in terms of targeting benefits to globally poorer communities”, Verra, 2017, p. 39). The Exceptional Community Benefits indicators were not changed. In summary:

1. In the project zone:
 - Smallholders/Community Members or Communities either own or have management rights, statutory or customary, individually or collectively, to land in the Project Area, or;
 - The project is in a low human development country, or;
 - The project is in an area where at least 50% of the population lives below the national poverty line.
2. Participants gain short-term and long-term “net positive well-being benefits” with a footnote that this must include “significant benefits that start flowing to smallholders/community members in a short enough timeframe to ... outweigh [the] costs and risks of participation”.
3. A participatory process is used to identify and mitigate risks to participants.
4. Community groups that are marginalized / vulnerable have been identified.
5. There are net positive impacts on the well-being of women.
6. A benefit sharing mechanism has been designed through a participatory process.
7. Adequate information about predicted and actual benefits, costs and risks has been communicated to participants.
8. There is full and effective participation by participants in project decision-making and implementation.
9. The capacity of participants and their local organizations / institutions is being built during the project.

It may be noted that being pro-poor translates not into standard indicators of poverty-reduction that can be easily measured, but into less tangible “net positive well-being benefits”. In this case, although the benefits have to “flow” (Verra, 2017, p. 39), which sounds like payments, well-being is defined “as people’s experience of the quality of their lives and may include environmental, social, economic, psychological, spiritual and medical dimensions” (Verra, 2017, p. 33).

As before, though, Climate Gold and Biodiversity Gold projects do not need to meet these requirements. In consequence, only projects specifically validated at the Community Gold level, which are required to be community-led, are relevant to our review of how an Indigenous-led project might be designed and run.

APPENDIX D

FREQUENTLY USED CARBON OFFSETTING TERMS

Term	Explanation
Mandatory offset market	Schemes like that of the UNFCCC Clean Development Mechanism (2008-2020) where developing countries could earn carbon credits in the form of Certified Emission Reduction (CER) units (1 CER = 1 tCO ₂ -e), which are <i>compliance credits</i> . Annex I (developed) countries could then buy verified CERs to fulfil their UNFCCC compliance obligations.
Voluntary Offset Market	Schemes in the non-governmental sector where an organisation administers a registry for voluntary carbon projects and offers a certification program, some being the Verified Carbon Standard (Verra), the Gold Standard, the Climate Action Reserve (CAR), and the American Carbon Registry (ACR), and Plan Vivo. Verra issues Verified Carbon Units (1 VCU = 1 tCO ₂ -e) and Plan Vivo issues Plan Vivo Certificates (1 PVC = 1 tCO ₂ -e) which are examples of <i>voluntary credits</i> . Typical purchasers of voluntary credits are corporations wishing to offset the emissions of their activities. Some countries, notably South Africa, allow VCUs to be used to reduce tax liabilities.
Domestic Offset Market	A carbon market developed and administered in a particular country. An example is the Australian Carbon Credit Unit scheme (ACCU), established to help fulfil Australia's Kyoto Protocol commitments (1 ACCU = 1 tCO ₂ -e). Most ACCUs issued are bought by the government using a taxpayer-funded Emissions Reduction Fund (ERF). Non-ERF purchases have increased to account for 8.3% of ACCUs sold in recent data. ³⁰
Validation	Assessment that a project's design conforms with the rules of the applicable standard.
Verification	Periodic assessment of a project to determine whether claimed benefits are materially correct and have occurred as a result of project activities, and that the project remains in compliance with the rules.
Grouped project	A project where the individual forest or farm plots ("projects") do not lie within a contiguous project boundary but are scattered across a district or districts, e.g. they are small farms where the owners have opted into the scheme.

³⁰ <https://www.cleanenergyregulator.gov.au/Infohub/Markets/quarterly-carbon-market-reports/quarterly-carbon-market-report-june-2023>.

APPENDIX E

RESPONSE TO LANDESA QUERIES

Request for comment received on 24 May 2024 in an email from Leslie Hannay of Landesa to John Burton and Julia Keenan of The University of Queensland, cc Juan Robelino and Curtis Tripp of Landesa.

- The AIDER project in Ucayali (p.14 of your report) seems like it could be a very useful case to understand in more detail how the project actually worked, to help to draw lessons relevant to the CI-Awajun project on:
 - o What was the level/nature of community involvement? How did they obtain FPIC?
 - o How did they handle the matter of benefit sharing?
 - o In all of those key areas of concern for us--were there any clear successful or challenging aspects?
 - o Households report a positive impact on well-being and improvements in forest management -- Does the data include indications of why households felt their well-being had improved? For example, perhaps improvements in food security, environmental health, cultural vitality?
 - o Is there any information in the reports that would allow us to see how women fared versus men? Different age groups?

We have provided more information on this project using information from Rodriguez-Ward & del Aguila (2014), Montoya-Zumaeta & Naime (2022), and Naime et al. (2024). See CCB Community Gold Projects, 13ff.

The seven communities appear to have been involved after selection by AIDER. Effective communication of carbon-offsetting concepts was challenging due to the spread of misinformation across Peru generally when the project was starting, so FPIC was probably achieved only after a lot of work.

No benefit-sharing as yet. Not all the communities have bank accounts or have been able to do financial capacity-building training.

The data does not really include indications of why households felt their well-being had improved. The formally reported project benefits were workshops, meetings and visits to farm plots. Unfortunately, there is not a lot more we can say without more detailed sources.

- Vida Manglar mangrove protection project on the Gulf of Morrosquillo in Colombia.
 - o This case was excluded from your list, though it was cited by independent reviewers as having been a success in terms of its approach to governance. If time permits, it would be helpful for you review this one-- we plan to include it among our cases shared so it would be helpful to get your take on it as well.

Apologies, time has not permitted us to look at the project in more detail.

- Yaeda-Eyasi Landscape Project by Carbon Tanzania
 - o The report states that "FPIC has been clearly established" -- any detail on this?

- o Any details on what the project specifically did in terms of community involvement, capacity building, benefit sharing, etc., and what the outcomes have been?

We have expanded our observation from Jodoin's book (2017). See Plan Vivo projects, 20ff., and Lesson 4, p. 29.

- Loru Forest Project (by Nakau, in Vanuatu).
 - o Report states that elite capture was avoided by Nakau's FPIC process and capacity building activities, and that \$45,000 was paid to the Ser clan in the first 7 years.
 - o What process did they follow for FPIC? How did they handle the matter of capacity-building? How was the money paid—individually, or to the collective? Is there any information on community member perception/satisfaction on this?
- Babatana Rainforest Conservation Project (Nakau, Vanuatu):
 - o As noted for the aforementioned cases, it seems there may be potential to learn from this case, but would require looking at finer details. In this case, since several different publications are cited, and the lead author is a colleague of yours at UQ, I'd assume it would be possible to access additional details?

We have taken these two projects together in expanding our commentary on the activities of the Natural Resources Development Foundation in Lesson 3, 27ff. This is not more information on the projects themselves, but a Tribal Rainforest Conservation Area Management Plan written collaboratively between NRDF and the Padezaka tribal committee when making an application to the Solomon Islands government for their (now gazetted) Protected Area on Choiseul Island (PPAMC, 2019).

The remarks also apply to the Drawa Forest project in Fiji.

As may be seen in the expanded section, it was not so much a case of soliciting FPIC from project participants, as project participants soliciting an NGO to help them achieve what they wanted. A carbon project is expected to be the next step. Formal consent processes were unlikely to have been foregrounded as the populations of the participant communities was tiny in the Loru Forest case and only a little bit bigger in the Babatana and Drawa cases.

This is very different from the situation facing the Alto Mayo Awajún project, not least because 16 communities are involved in a Grouped Project (cf. Appendix D). That is, FPIC needs to be assured separately in each community.

REVIEW OF INDIGENOUS-LED CARBON PROJECTS

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