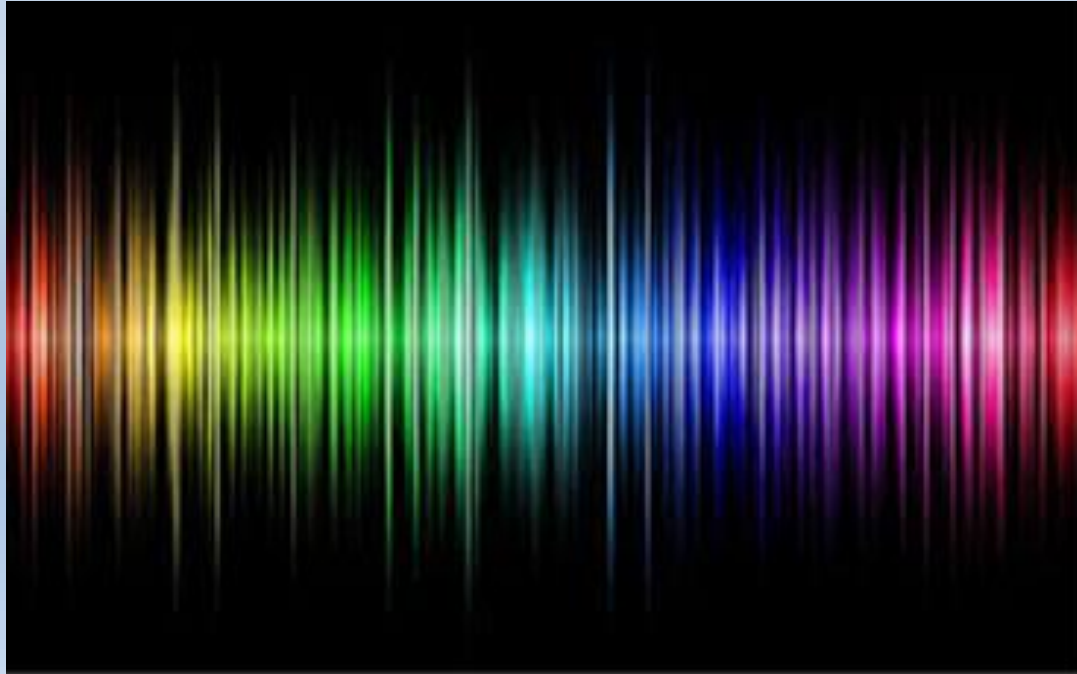


Natural forest concessions

A pragmatic tool for providing a spectrum of benefits



Steve Gretzinger
Zak Forest Resources LLC



Setting the stage



- Recognize “blood, sweat and tears” nature of natural forest management and need to combat competition by fostering profitable concessions
- Discard “old school” concept of concessions and incorporate innovations from your peers
- Understand key ingredients for success
 - Political support based on economic benefits
 - Production = Conservation
 - Integration of private actors
 - Risk reduction
 - Progressive capital

No, its not magic, and yes, your agencies can work with companies and communities to build successful concession programs that yield tangible benefits

Setting the stage

- Policies and processes that favor agriculture (Government)
- Well-known commodities “easy” to understand and manage (Private)
- Low-cost entry point, transparent markets, and fast return result in “easy” loans at all levels (Finance)
- Agricultural development at heart of most cultural histories (Society)
- Cleared land has value and provides “clear” ownership (Communities)

Advantages of main competitor: Agriculture



<https://www.farmaid.org>

Setting the stage

Inherent obstacles to natural forest management

- Maximum control on forest-based industries results in perverse incentives (Government)
- Multiple species, wide range of products, and complex markets makes management difficult (Private)
- Expensive and time-consuming entry point equates to low “risk-adjusted” return and difficult access to capital (Finance)
- Tree cutting is inherently bad (Society)
- Standing forest belongs to the far-away government or no one (Communities)



Setting the stage

Natural Forest Management

- Spend time and money (a lot) to bid on, prepare for, and access forest resources on land “belonging” to entire country and neighboring communities
- Harvest, process and market a complex mix of difficult to access species and products
- Be considered the “bad guy” because business is based on “killing trees”
- Long time to reach positive cash flow after major CAPEX spending and unclear return



Economic logic wins the day

Agriculture

- Minimal paperwork, fast approval and straightforward payments (buy or lease from private owner)
- Straight-forward mix of well-known inputs to produce 1-2 crops with good logistics and processing infrastructure
- Everyone needs to eat and growing plants to feed bellies is good
- Fast return with cleared & accessible land as collateral makes capital raising easy

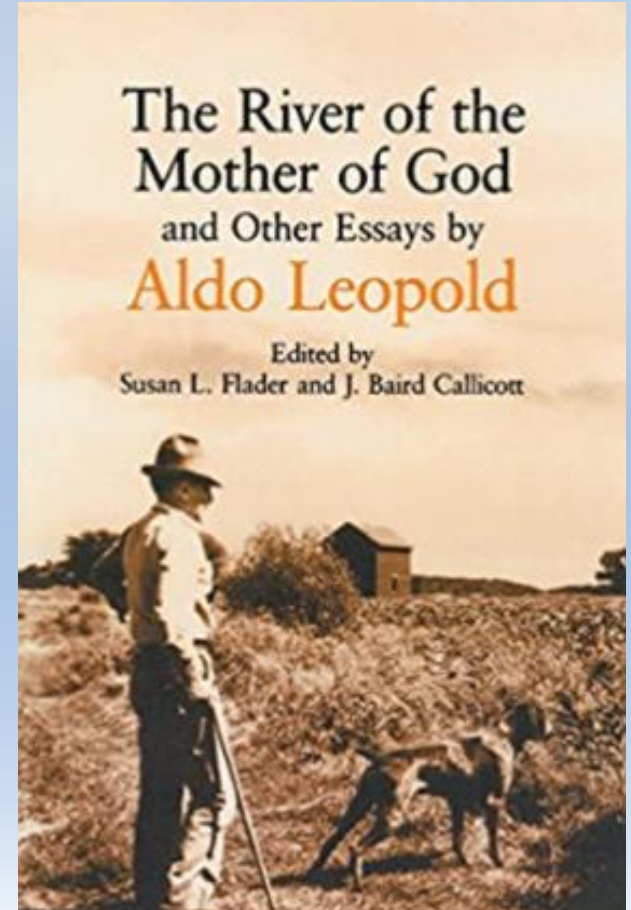
Changing the paradigm

Conservation Economics [1934] called for institutional incentives to induce private landowners to manage land in the public interest.

- Public land management should be complementary to private needs and interests
- Impact of public land management policy on tax-base should not be forgotten
- Minimum management unit must be large enough to carry a custodian

“Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest”

Alignment of private interests with public benefits



Changing the paradigm

Contractual arrangements for temporary allocation of public forest resources to third parties (businesses, communities, NGO's) and granting of rights (harvest and management) to utilize forest resources and services (and “conservation” or preservation)

What are the implications of this definition per 105 well-known forestry professionals from around the world?

Classic view of a forest concession

The image shows the cover of a report. At the top, there are logos for the Food and Agriculture Organization of the United Nations (FAO), ITTO (International Tropical Timber Organization), Serviço Florestal Brasileiro (Brazilian Forest Service), CIFOR (Center for International Forestry Research), and cirad (Centre for International Forestry Research). Below the logos, the text reads: "INTERNATIONAL WORKSHOP", "What future for forest concessions and alternative allocation models for managing public forests?", "Porto Velho, Brazil", "September 13 – 16, 2016", "REPORT", and "Rome, October 2016". On the right side, there is a photograph of people working in a forest, with a large green leaf graphic overlaid on the image. At the bottom, it says "With the financial support of" followed by logos for ACTO, IFT, WWF, and other organizations.

Changing the paradigm

Learning from your peers

- Bolivia - no ocean access, little forestry history & strong donor support became leader of FSC-certified tropical forest management (now dramatically reduced)
- Brazil - subjected to intense scrutiny, economic pressures, and struggling industry, but now working to build transparent & pragmatic system for minor % of forests
- Guatemala - civil war ended & immigration increased under new democratic president, but international support and political will built community concession program



Changing the paradigm

Learning from your peers

- Guyana- began with simplistic system favoring foreign investors, but now improving technical oversight, building community initiatives and promoting new models
- Peru - came out of economic downturn to establish system providing long-term wood supply for growing sector (although moved too quickly with advisors who did not understand local context)
- Suriname, with highly regarded silvicultural research, responded to criticism of system by promoting multi-sectorial collaboration and facilitating FSC certification

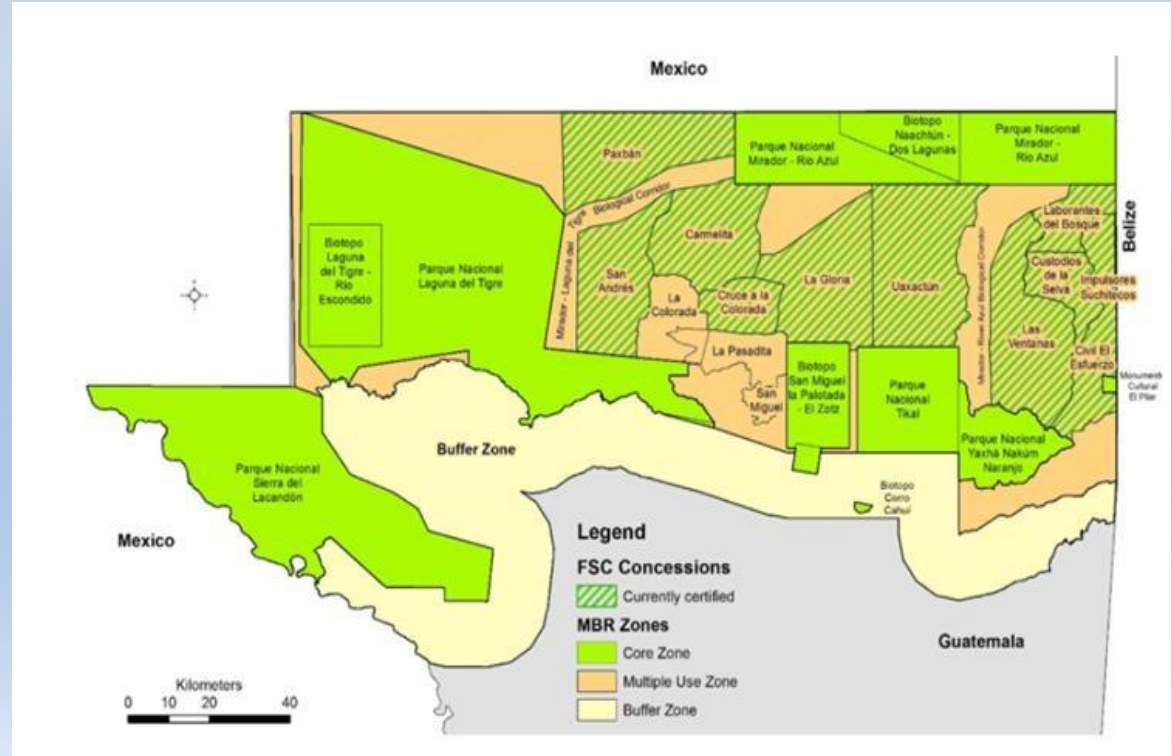


Innovation 1: Production = Conservation

Guatemala - Maya Biosphere Reserve (MBR)

> 500,000 ha of natural forests designated for production in the 2.1 million ha MBR established in 1990:

- 864,300 ha (40%) destined for multiple use
- 747,800 ha (36%) under strict protection
- 487,900 ha (24%) private holdings in buffer zone



Innovation 1: Production = Conservation

Guatemala – Profitable community concessions

- Program functions profitably on 91% of 533,045 ha of community concessions with 20 years of log production, FSC certification and carbon revenues
- Wood exports based on 43,888 m³ of logs from 14 species generated > USD 50 MM (2003-2013)
- Earnings from 28,000 m³ of lumber reached ~ USD 40 MM (2015-19)

No.	Unidad de Manejo	POA's ejecutados	POA piloto	Periodo
1	Río Chanchic	15	1,998	1999-2013
2	Chosquitán	14		2000-2013
3	La Unión	13		2001-2013
4	Yaloch	12		2002-2013
5	Uaxactún	14		2000-2013
6	Las Ventanas	14		2000-2013
7	San Andrés	14	1,999	2000-2013
8	Carmelita	16	1,997	1998-2013
9	Cruce a La Colorada	13	2,000	2001-2013
10	Paxban	14		2000-2013
11	La Gloria	14		2000-2013

Fuente: Proyecto CNCG-RA, 2013

Innovation 1: Production = Conservation

Guatemala – Community-driven private joint venture

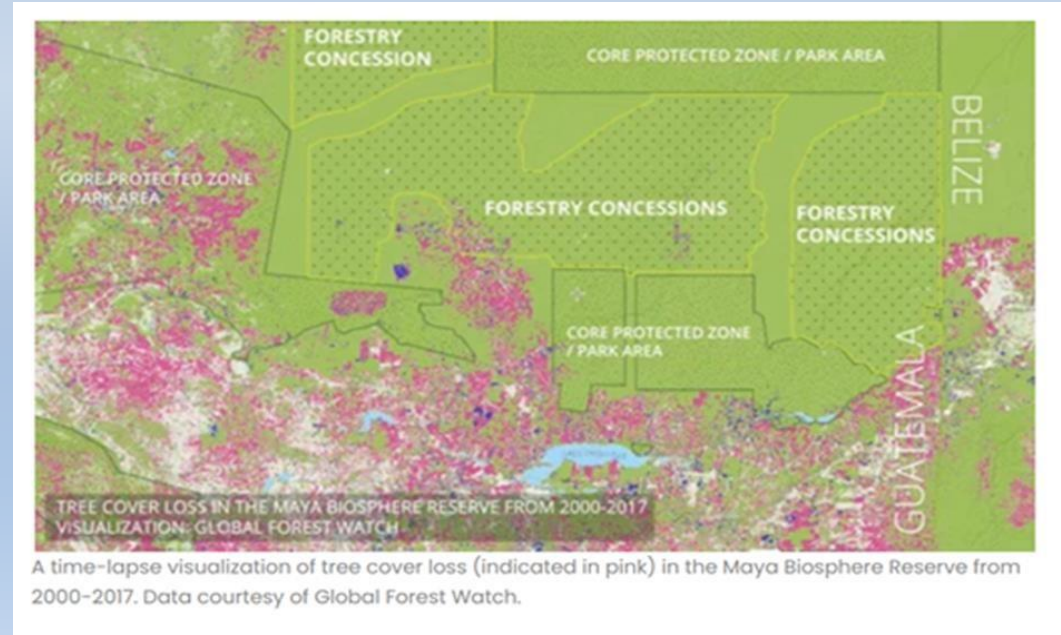
- Consolidation of supply, processing, and sale of products to clients ranging from guitar manufacturers to major retailers
- Provision of working capital via advance log payments
- Interest earned from loans shared with community shareholders



Innovation 1: Production = Conservation

Guatemala – Minimal deforestation w/ active management

- From 2000-2013, deforestation rates in active concessions were 0.4% vs. 1% in core protected areas and 5.5% in buffer zones (Hodgdon et al 2015)
- FSC-certified concessions had virtually no deforestation



Marcedonio Cortave:

“Nobody is going to take care of somebody else’s house, somebody else’s garden...But they will look after and defend their own livelihood.”

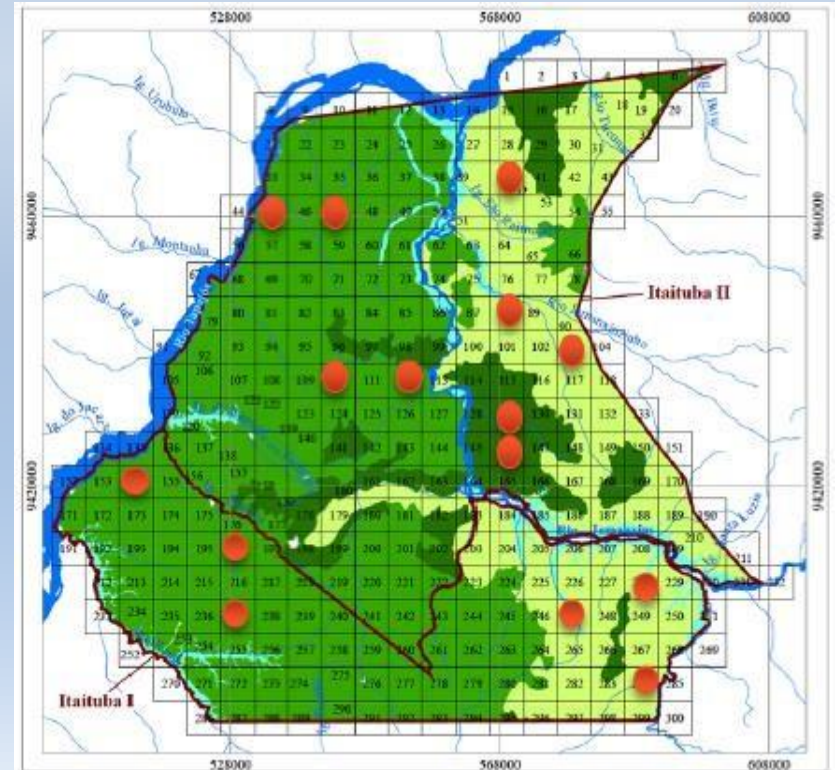
<https://www.nytimes.com/2015/11/26/world/americas>

Innovation 2: Risk reduction

Brazil – Accurate information for bid price

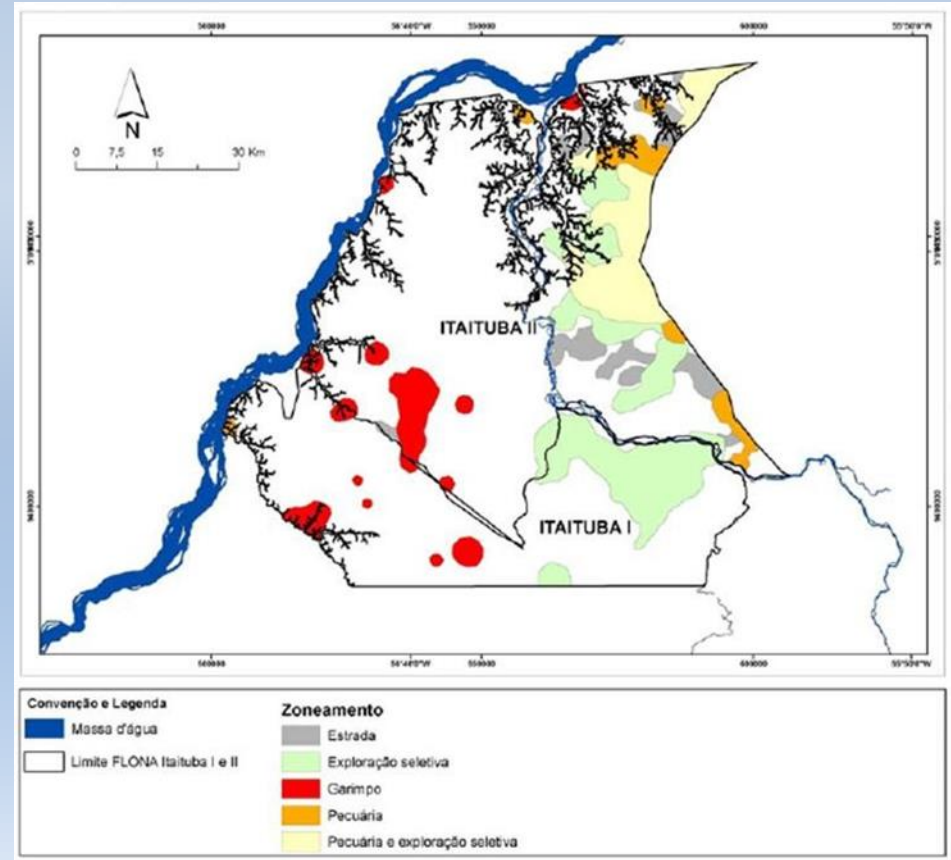
- Inventory by 3rd party with volumes of truly commercial species and independent audit
- 20-30 year cutting cycle dictated by law able to be modified per real data with aggressive allowable volumes of 20-30 m³/ha (and required minimum harvest)
- Minimum bid price based on DCF model fed with site-specific costs (CAPEX and OPEX), and realistic revenues that accurately reflects investor return

Experimental approach developed in conjunction with the International Finance Corporation and BNDES...under review as we speak with the IADB



Innovation 2: Risk reduction

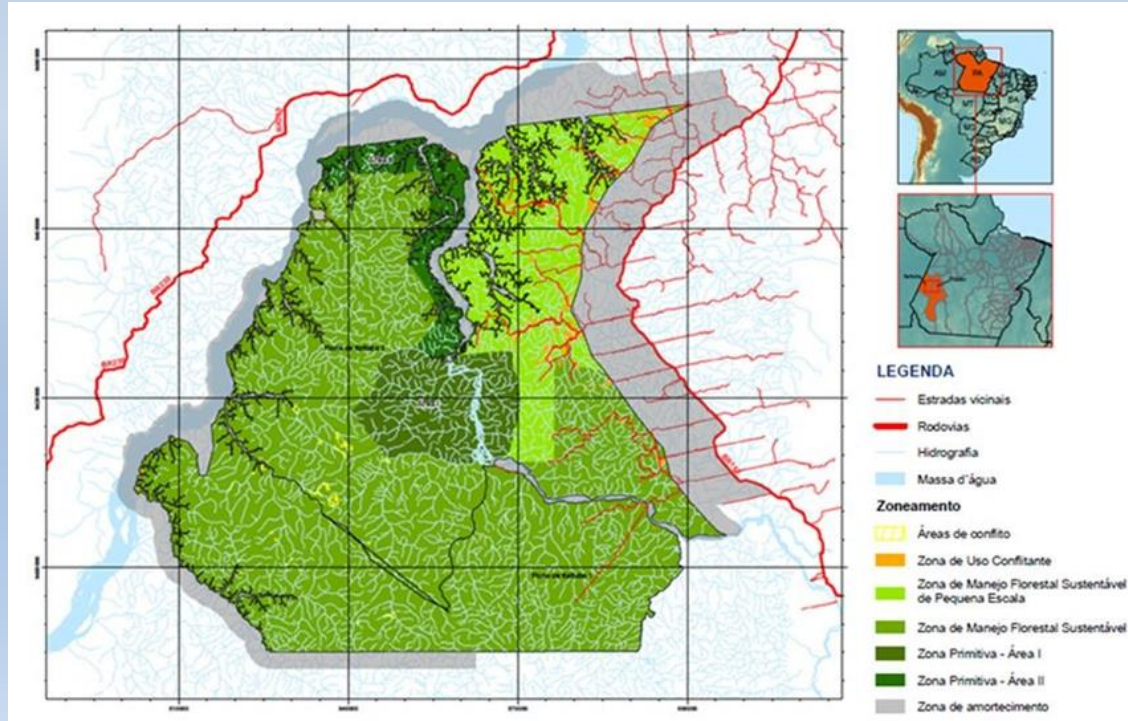
Brazil – Accurate view of threats



Government committed to its role from the beginning to protect concessionaire's investment

Innovation 2: Risk reduction

Brazil – Realistic view of productive area

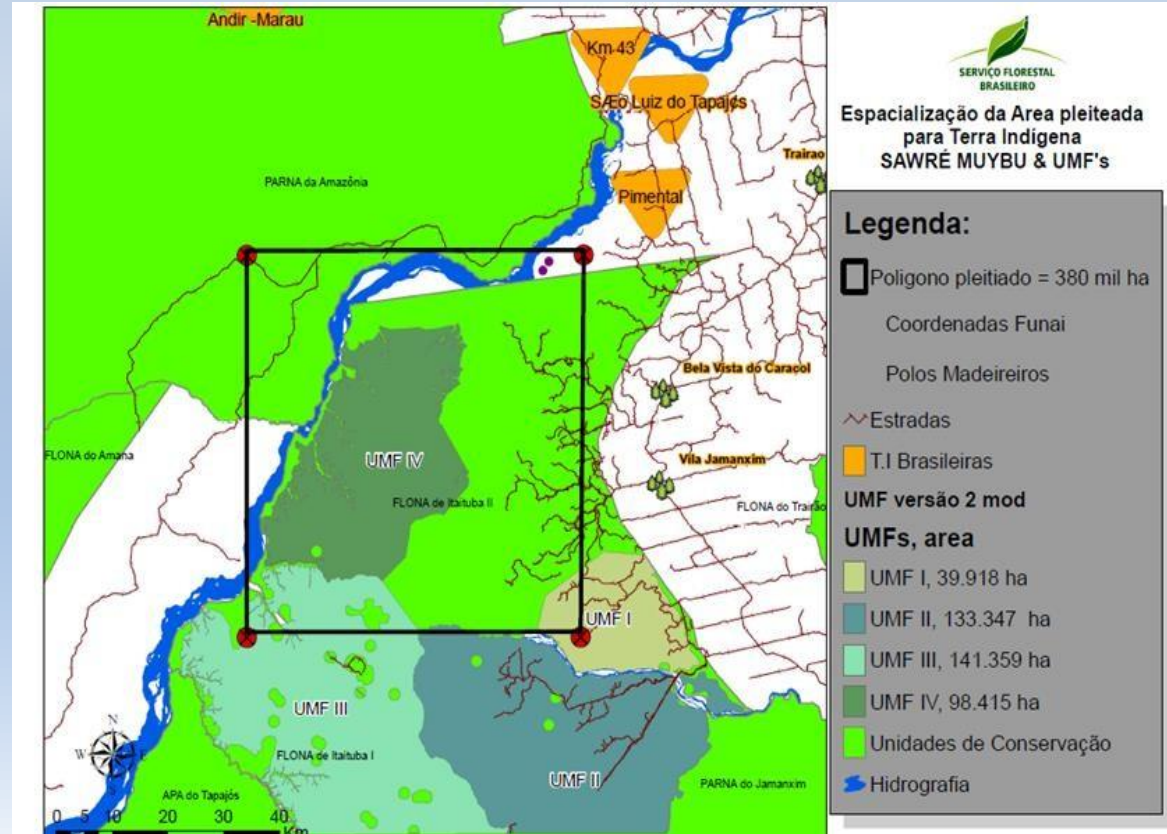


Concessionaire only pays for what produces revenue and keeps government's "toes to the fire"

Innovation 2: Risk reduction

Brazil – Protect indigenous rights

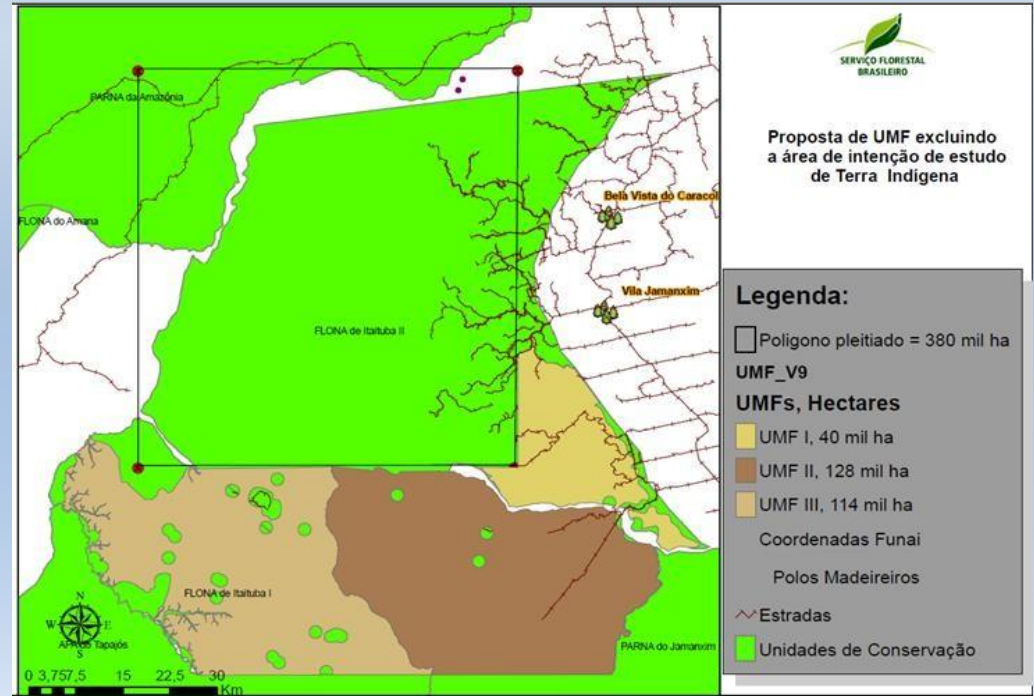
- Original concession area include 4 Management Units (UMFs) covering > 410k ha.
- UMFs I, III and IV had areas within the potential / claimed area for indigenous community
- Purple boxes in the northeast represent the actual location of the indigenous community.



Innovation 2: Risk reduction

Brazil – Protect indigenous rights

- Government was comfortable with 1st concession area because indigenous community was not originally in National Forest and recent settlements were from other regions that do not traditionally use forest
- Per IFC principles, excluded entire potential conflict area (square) from area to be leased
- Total area reduced to 280,000 ha (~ 40% reduction)



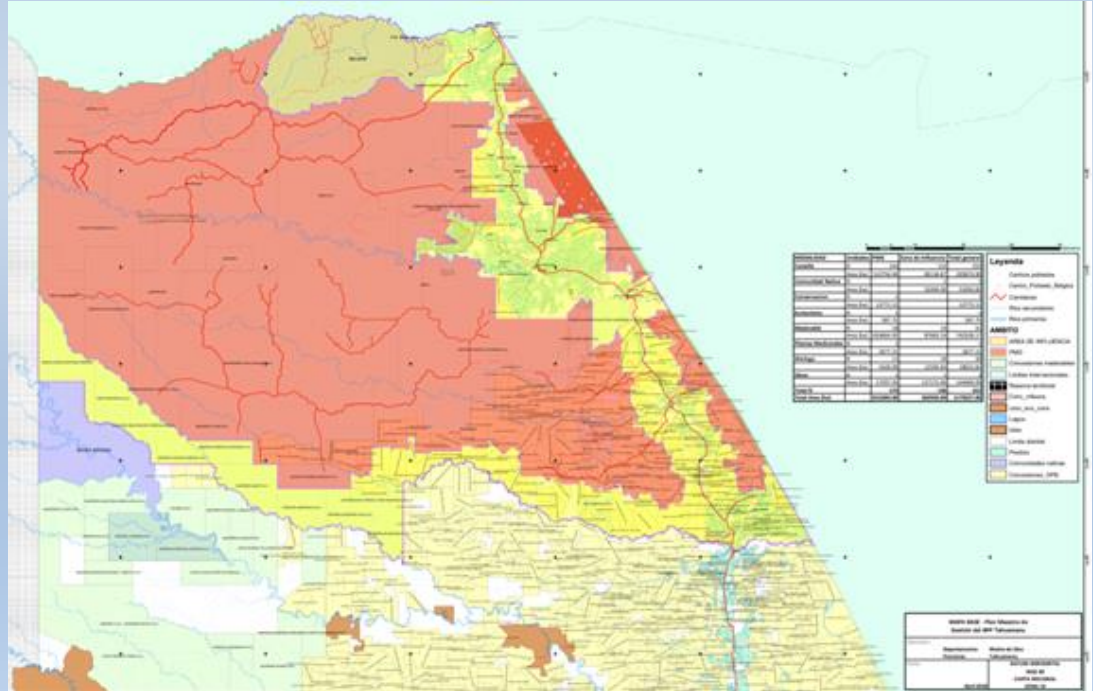
Innovation 3: Integration

Peru – Landscape planning

The vision for Tahuamanu's Permanent Production Forests:

“Productive and competitive conservation of the goods and services provided by forests to guarantee a supply of the same to generate economic and social well-being for the populace and function as a protective buffer for the Territorial lands of Communities in Isolation and contribute to GHG emission reductions”.

Draft General Management Plan, December 2020



Tahuamanu covers 1,179,327 ha including 829,476 ha of forests under permanent production (“BPPs”)

Innovation 3: Integration

Peru – Economic “forestry” context

- High proportion of commercial species with strong demand (despite low volume per hectare)
- Excellent road infrastructure connecting distant region to ports on Pacific Coast
- Culture of commercializing both timber and non-timber products (Brazil Nut)
- Consolidated block of intact forest surrounded by buffer where range of activities reduce deforestation drivers on timber concessions

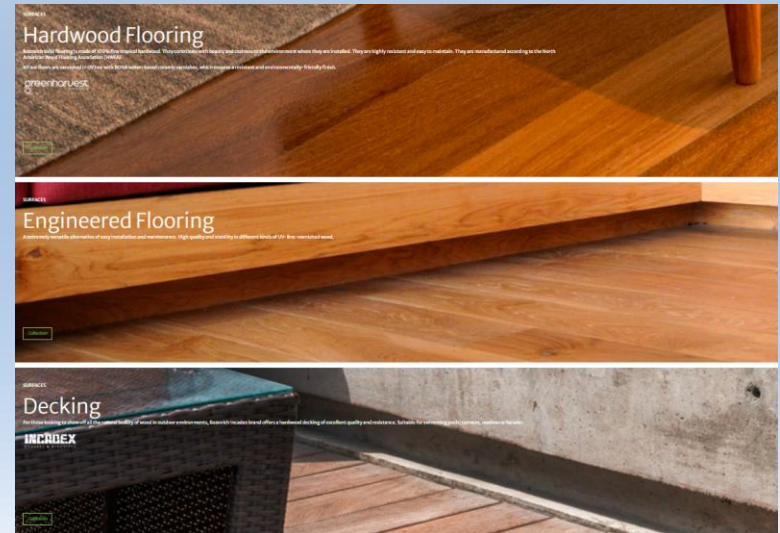
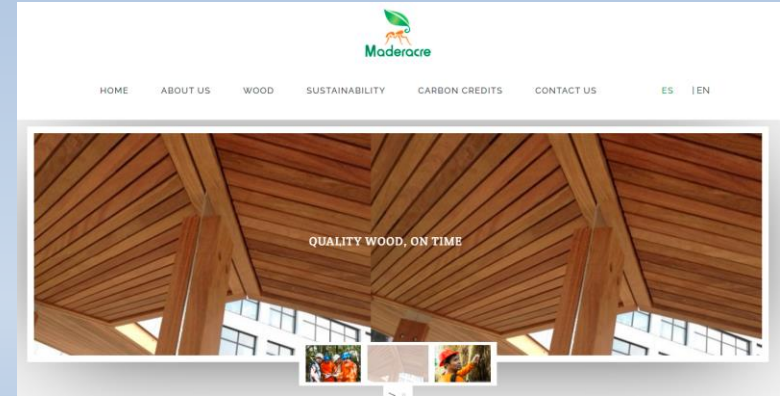


Estimating and Improving Timber Legality in Peru, 2020

Innovation 3: Integration

Peru – Strong private actors

- Experienced managers consolidated smaller concessions into larger holdings with economies of scale
- Large operations with foreign capital invested in primary & secondary processing to sell high quality final products to discerning export markets
- Due to success in changing baseline conditions that would have resulted in forest conversion, concessions have sold carbon credits in the voluntary market
- 547,399 ha of private concessions and 53,394 ha of indigenous lands with FSC certification



Innovation 3: Integration

Peru – Strong economic impacts

- Despite low average of volume harvested (3.63 m³/ha) concessions inject USD 1,042/ha into local economy
- In 2018, functioning timber concessions generated USD 33.7 million.
- If all concessions were operating at average capacity, an additional 15% would be added to the local economy thus allowing BPPs to generate USD 49.6 million



Innovation 3: Integration

Peru – Diverse & robust socio-economic impacts

Economic & employment impacts of forestry and wood products from timber concessions in Peru

Product	Volumen (m3r)	Value (U\$)	Jobs	Value per job (U\$/m3)	Jobs per harvested area (#/ha)	Jobs per harvested vol (#/m3r)	Location of Impact
<i>Log at mill</i>	2,105,879	\$ 247,000,000	174,369	\$ 1,417	0.4	0.08	Forest / Rural communities
<i>Lumber at mill</i>	1,095,057	\$ 589,000,000	61,132	\$ 9,635	0.2	0.03	Amazonian cities
<i>Final product at port</i>	951,373	\$ 1,372,000,000	260,643	\$ 5,264	0.6	0.12	Coastal cities
Total/Average		\$ 2,208,000,000	496,144	\$ 4,465	1.2	0.24	

Innovation 4: Progressive capital

New investors with congruent objectives

CUPERTINO, CALIFORNIA Apple today announced a first-of-its-kind carbon removal initiative — called the Restore Fund — that will make investments in forestry projects to remove carbon from the atmosphere while generating a financial return for investors. Launched with Conservation International and Goldman Sachs, Apple's \$200 million fund aims to remove at least 1 million metric tons of carbon dioxide annually from the atmosphere...while demonstrating a viable financial model that can help scale up investment in forest restoration.

PRESS RELEASE
April 15, 2021

Apple and partners launch first-ever \$200 million Restore Fund to accelerate natural solutions to climate change

Investment builds on the company's forestry and responsible packaging innovations to deliver new financial and climate returns

Innovation 4: Progressive capital

New investors with congruent objectives



- 25 years focused on natural forest management, climate change mitigation, conservation and successful investments (U.S. and Central America)
- Since 2009, TFG has sold more than 15.6 MM+ tons of forest carbon offsets for \$148.6 MM in revenue for investors from 13 projects
- 41 TFG transactions led to permanent forest conservation across 999,198 acres
- Since 2005, TFG maintained an average of 99.77% of area under sustainable certification

U.S. Timberland Investment Management Organizations (TIMOs) are stable, serious and large financial institutions with > \$ 50 billion invested globally with capital largely from pension funds

Innovation 4: Progressive capital

New investors with congruent objectives



Investing in Frontier and Emerging Markets since before they were “Frontier” or “Emerging”.

We are 100% focused on Frontier and Emerging Markets.

We are 100% employee-owned.

We are 100% research driven, team based, & client focused.

Innovation 4: Progressive capital

New investors with congruent objectives

HOME » WHERE WE WORK » LATIN AMERICA AND THE CARIBBEAN » PERU » WHY DO WE PARTNER WITH THE PRIVATE SECTOR

WHY DO WE PARTNER WITH THE PRIVATE SECTOR

Private sources now represent nearly 90 percent of financial flows to developing countries. The private sector creates nine out of ten jobs in the developing world and provides an important pathway for partner countries to achieve self-reliance. It is also the driving force behind many new innovations that help solve development problems.



USAID Peru

NEWS

Lanzamiento del Programa de Capacitación en Prevención de la Corrupción de Empresas para Empresas

U.S. Agency for International Development Administrator Mark Green's Remarks at The Summit of Americas' Youth Forum

USAID Administrator Mark Green Travels to The Summit of the



FOREST, programa de cooperación técnica de USAID y el Servicio Forestal de los EEUU

Lessons learned

Myth-busting

Private companies and rural communities are:

- Profitably managing complex forests on public lands under challenging conditions,
- Reducing deforestation,
- Reducing illicit activities, and
- Protecting intangible environmental services per internationally accepted certification systems



Lessons learned

New role of concessions as a “Sleeping Giant”

- Concessions are not just “contractual arrangements to 3rd parties to utilize forest resources and services” but rather...
- A pragmatic and effective tool for conserving forests by building a forest-based economic constituency of private companies and rural communities by...
- Creating quality jobs in underserved areas that provide salary, benefits and career advancement, as well as tax revenues for governmental services



Ingredients for success

Despite good progress, let us not forget the challenge

Competing against agriculture and illegal forest conversion by investing scarce capital and sweat equity in natural forest management on public lands is very challenging and costly



Ingredients for success

What can you do despite challenges?

- Build political support

Based on clear understanding of tangible and real economic benefits from large-scale implementation of forest management and value-added production

- Develop production-based conservation strategy

Governmental planning based on reality of forest, infrastructure and user groups to build consolidated block of concessionaires as part of landscape

- Foster integration

Coordinated collaboration between different economic interests (timber, non-timber forest products, carbon, and manufacturing) to increase scale, optimize advantages, maximize value of forest, and share costs

Ingredients for success

What can you do despite challenges?

- Reduce risk to investment

Site-specific business-oriented information to define true management costs, accurately document threats, and protect community rights...all incorporated into definition of productive concession area and price

- Search out progressive investors

By mixing the above four ingredients into the pot, your country will be better prepared to access the expanding universe of investors now willing to engage in natural forest concessions for complementary reasons

Thank you



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