Summary

The Costa Rican forestry industry has been stagnant in recent years as an unintended result of conservation policies. Forests now cover over half of the country but their contribution to national wealth is undervalued. National forest accounts will show the potential contribution a sustainable timber industry could make to the economy, informing future policy debates.

Background

This briefing is written by Dr Ina Porras and Rosalind Goodrich (IIED) with inputs from the Costa Rica WAVES team.

Growing green wealth: accounting for forests in the national economy

Innovative policies, economic instruments and local capacity have halted the fastest deforestation process in Latin America and steered Costa Rica to its current level of forest cover. The conservation sector, sustainable tourism industry, hydropower generation and civil society emerge as clear winners. But others have lost out. Natural capital accounting will provide a comprehensive way to design and assess economic policy, so that the contribution of Costa Rica's natural wealth to sustainable growth is better realised.

The main messages that emerge are:

- Missing potential: The contribution of the forest sector to national wealth is reported as a bundled statistic of 'agriculture, silviculture and fisheries'. The forestry sector — activities related to the timber industry — represents less than 0.5 per cent of GDP. From a country with 52 per cent of forest cover, this figure suggests an underperforming sector, drives away private investment and adds pressure to public budgets.

- Better accounting: Natural capital accounts will contribute to a clearer picture of the impact of forests on wealth. Preliminary estimates suggest that the forest economy represents close to two per cent of GDP, significantly higher than reported by traditional national accounts. Moreover, the accounts will show how forests contribute to productivity in diverse industries and sectors.

- Well-informed policies: Natural capital accounts will help the government, private sector and NGOs develop viable strategies for sustainable resource use. Linking wealth creation from inputs to users will show the added value that further investments in forestry will have for the economy, and for new jobs and VAT, for example.

Celebrating success

Between the 1940s and 1980s Costa Rica experienced one of the fastest deforestation process in the world to make way for agriculture, ranching and new urban areas. A strong and dynamic environmentalist movement emerged from this; policies and markets responded and this turned the wheel of deforestation around. Today, over half of the country is covered by forest, and approximately 25 per cent is under strict protection in national parks and wildlife refuges. A series of policies and incentives has targeted conservation and forest management in private lands. Early investments in research and development by local institutes have created state-of-the-art technical capacity in sustainable tropical forestry.
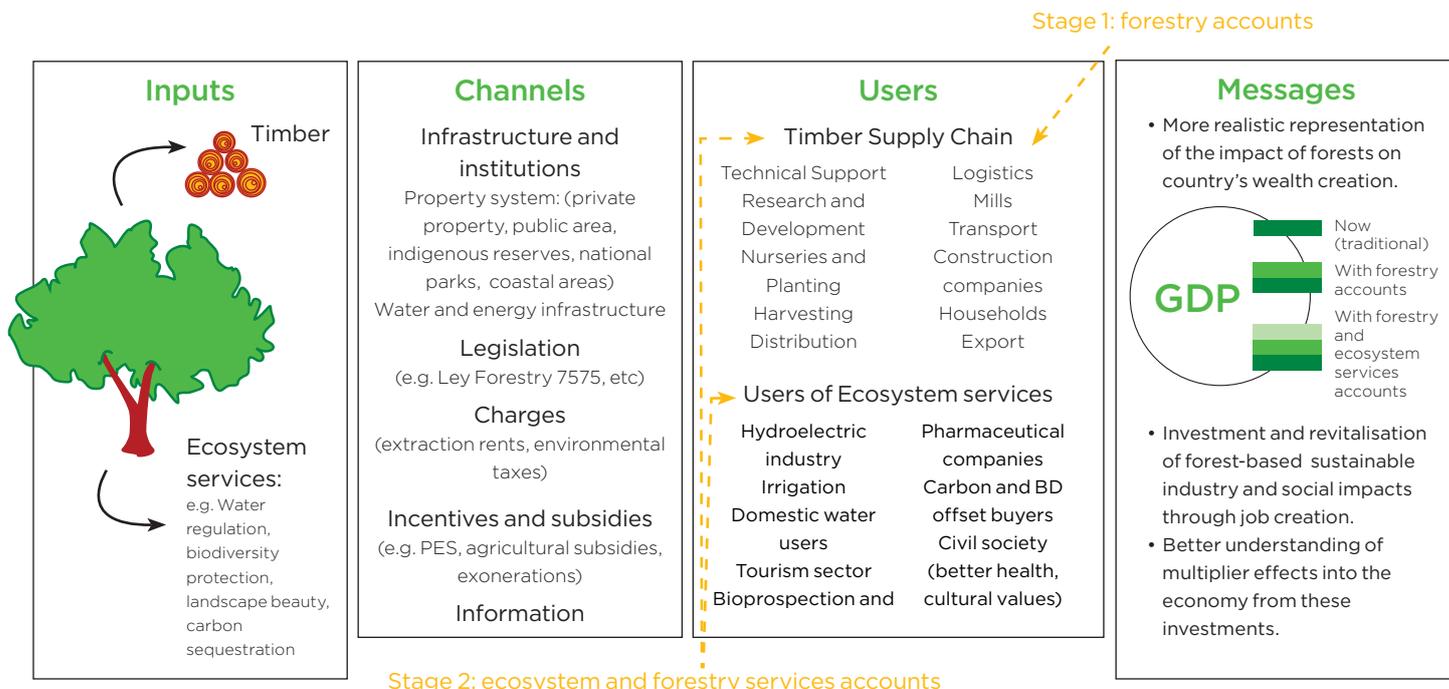
A stagnant forestry sector

However, along the way, much of the productive forestry sector has been

Natural capital accounting: better data for better policy

The forest accounts compiled by the Central Bank follow SEEA 2012, the international statistical standard approved by the United Nations for natural capital accounting (NCA). The NCA process follows strict protocols for the collection and generation of data through three key steps:

- Accounting for those physical inputs underpinning the economy (like forests, or precipitation)
- Accounting for how these inputs are transformed by people and industry into intermediate and final products – like electricity or food – represented traditionally for a time period through the Gross Domestic Product (GDP)
- Accounting for the flows that are not used, or are left after the process, and merge back into the environment
- NCA helps countries generate a transparent picture of how stocks and flows of natural resources interact with the economy and generate wealth. This in turn allows the resource managers, public and private, to design policy based on facts. Furthermore, the information generated is consistent with existing national accounts, most notably GDP, which underpins governments' policies and budget allocations.

Inputs

Timber

Ecosystem services:
e.g. Water regulation, biodiversity protection, landscape beauty, carbon sequestration

Channels

Infrastructure and institutions
Property system: (private property, public area, indigenous reserves, national parks, coastal areas)
Water and energy infrastructure

Legislation
(e.g. Ley Forestry 7575, etc)

Charges
(extraction rents, environmental taxes)

Incentives and subsidies
(e.g. PES, agricultural subsidies, exonerations)

Information

Users

Timber Supply Chain

Technical Support	Logistics
Research and Development	Mills
Nurseries and Planting	Transport
Harvesting	Construction companies
Distribution	Households
	Export

Users of Ecosystem services

Hydroelectric industry	Pharmaceutical companies
Irrigation	Carbon and BD offset buyers
Domestic water users	Civil society (better health, cultural values)
Tourism sector	
Bioprospection and	

Messages

- More realistic representation of the impact of forests on country's wealth creation.

GDP
- Now (traditional)
- With forestry accounts
- With forestry and ecosystem services accounts

- Investment and revitalisation of forest-based sustainable industry and social impacts through job creation.
- Better understanding of multiplier effects into the economy from these investments.

Figure 1. The forest accounts process in Costa Rica

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lost or is in serious decline. Strict regulation introduced in the 1990s, combined with incentives for conservation and a civil society antipathy for logging effectively halted the local production of timber. Conservation was linked with strict preservation rather than sustainable use. Investment in the sector decelined, and jobs were lost.

The use of timber for construction, for example, shrank from 30 per cent of new houses in 1984 to 10 per cent in 2000 and the trend continues downwards.[1] Craftsmanship is disappearing due to lack of demand and increasing competition from Chile, Nicaragua and China.

The forestry sector urgently requires revision. Maintaining the hard-won growth in forest cover will only be possible if it becomes a productive asset. Understanding the contribution of forests to the country's economy could change the perception of using forests from being seen as a problem to becoming an opportunity.

Where we are now

In 2012 Costa Rica embarked on a natural capital accounting program as part of the of the World Bank WAVES partnership and following a Rio+20 endorsement by more than 65 countries for stronger implementation of the approach. The partnership provides feedback and support to teams in eight countries for testing and fine tuning approved protocols for natural capital accounting in a way that responds to local needs and provides comparable information at the international level. Results from the process will inform a wider community of practice at local and international level.

A local team has been developing two sets of forest accounts in Costa Rica, fully integrated into the Central Bank national accounting process. Background studies make sure that the information is developed with a clear understanding of the components that link resources to users — the institutions, legislation and policies, for example (see Figure 1). An intense engagement process between a variety of actors from the government, NGOs and the private sector is supporting protocols for

How forest accounts could be used to monitor housing policy

Costa Rica's goal to achieve carbon neutrality by 2021 will require mitigation actions from energy-intensive sectors with high CO_2 emissions, such as the construction industry.[2] New houses in Costa Rica are nearly all built from cement and metal. Demand for new houses is increasing, with an approximate accumulated housing deficit of 190,000 units, so the pressure on emissions is high.[3]

In response, the National Technological Institute (TEC) has been working for several years on the design of an environmentally-friendly timber house, designed to reduce the use of steel, cement and water. These houses have many benefits compared to cement-based housing: they reduce CO_2 emissions, take on average 40–60 per cent less construction time; the materials are easier to transport; and the final houses create a more pleasant family environment. Importantly, they can become a motor to revitalise the country's forestry industry if promoted on a large scale.[4]

This promotion could take place through engaging the construction sector in testing new systems, the banking sector facilitating loans, and the government by allocating part of their budget for social housing. Forest accounts in turn will be able to measure the multiplying impacts of the programme along the various stages of the value chain, helping shape the perceptions of the private sector and civil society around the value of the country's natural resources.

ensuring data transparency and reliable results. A wider engagement process is also underway, bringing overall legitimacy to the process and making it more likely that creation of information is driven by demand.

The NCA steering committee is reviewing results from the first modules of forest accounts, and will make them publicly available in 2016. Figure 1 also illustrates some of the expected policy impacts:

- A more realistic representation of the impact of forests on the country's wealth creation process.

- This clearer picture will provide the information to guide new investments for the revitalisation of a forest-based sustainable industry, with clear impacts on the economy through the creation of new jobs. The accounts will provide a better understanding of the multiplier effects into the economy from these investments.

- Policies can be better evaluated and feedback mechanisms incorporated to fine-tune the impact of the policy because the accounts are regularly produced in a consistent way.

Notes

1. Gobierno de Costa Rica, Propuesta para la Preparación de Readiness R-PP Costa Rica, 2010, Ministerio de Ambiente, Energía y Telecomunicaciones. Gobierno de Costa Rica: San José
2. Gustavsson, L and R Sathre, Energy and CO_2 analysis of wood substitution in construction. Climatic Change, 2011. 105(1-2): p. 129-153
3. MIVAH, Atención del déficit habitacional con el Bono Familiar de Vivienda (BFV) y con crédito del Sistema Financiero Nacional (SFN) 2000-2012: Estimaciones 2013-2015, 2013, Ministerio de Vivienda y Asentamientos Humanos: San José.
4. Camacho, D, La construcción con madera alternativa para la mitigación del efecto de fenómeno del cambio climático, 2015, Instituto Tecnologico de Costa Rica: Cartago.

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