



Bridging the investment gap for Payment for Ecosystem Services in Costa Rica

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1. Broad overview and trends
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 - Background
 - Financing
 - Impacts
3. Road ahead: Challenges



Overview and trends



Exchange of \$\$ for land management practices intended to provide or ensure ecosystem services

Overview and trends

- Rapid growth in two decades: The annual value of PES in the world is between **US\$ 36-42 billion** (Market value) (Salzman et al., 2018).
- **550** active programs (Salzman et al., 2018).
 - **387** in Watersheds: **US\$24.7 billion** in **62 countries** in **2015**
 - 120 in biodiversity
 - 45 in carbon sequestration

Overview and trends

Assessing the effectiveness of PES (Salzman et al., 2018)

- Most are rarely established with a rigorous evaluation of effectiveness in mind.
 - Difficult to evaluate counter-factuals—what would have happened without a PES programme?
- Research has provided very mixed results

PES in Costa Rica

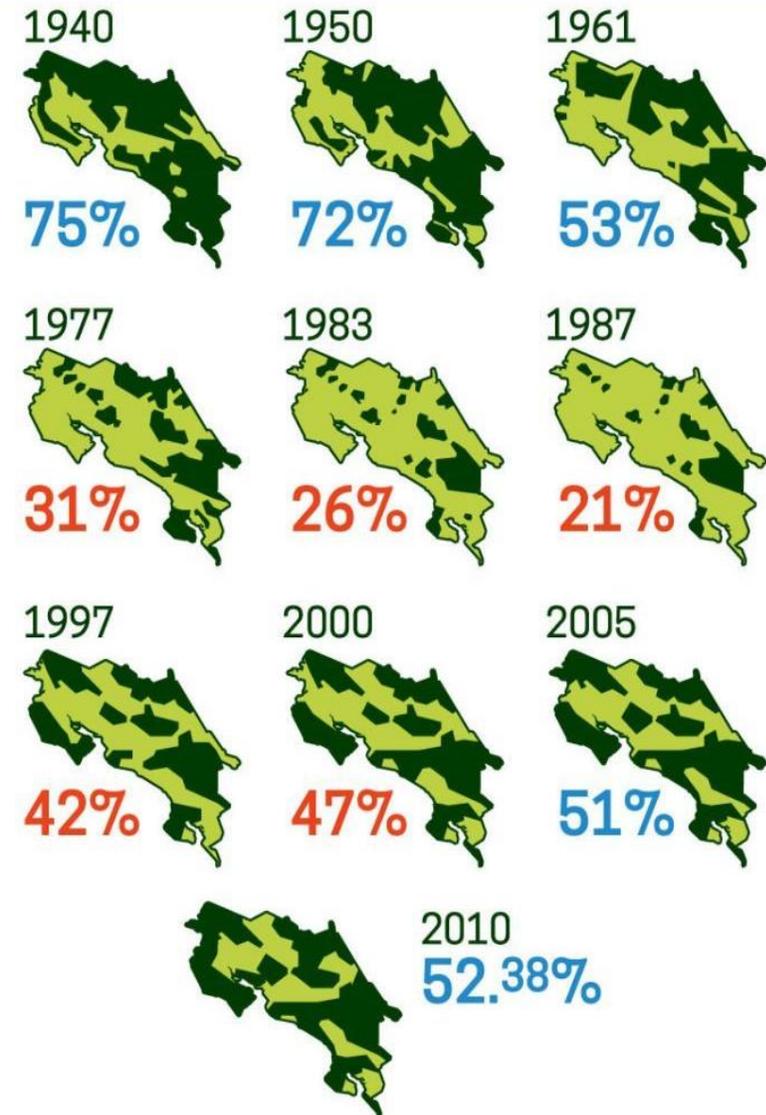
- Costa Rica has been a pioneer in implementing policies to protect ecosystem services since over 40 years.
 - PES 1997



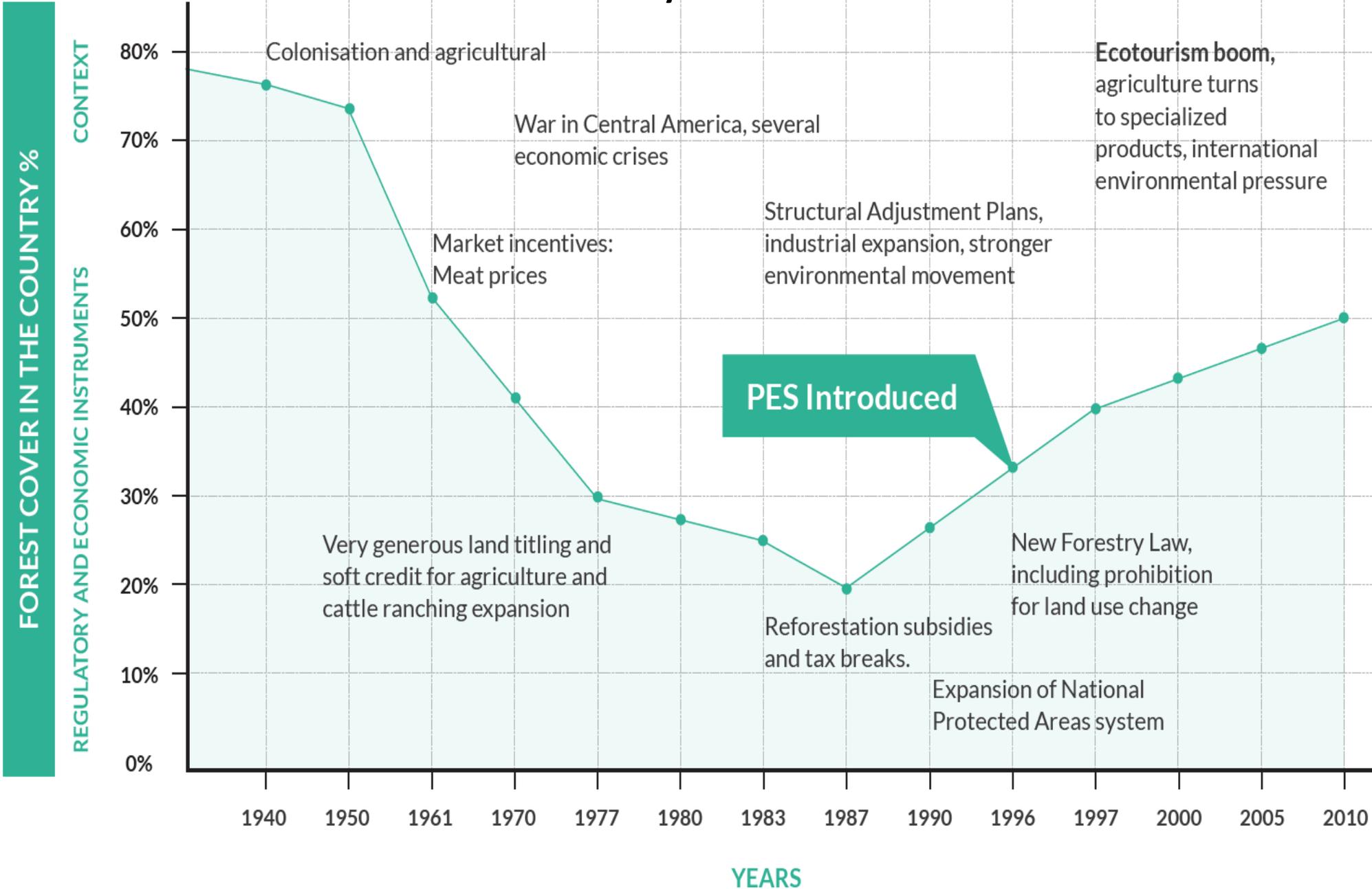
PES in Costa Rica

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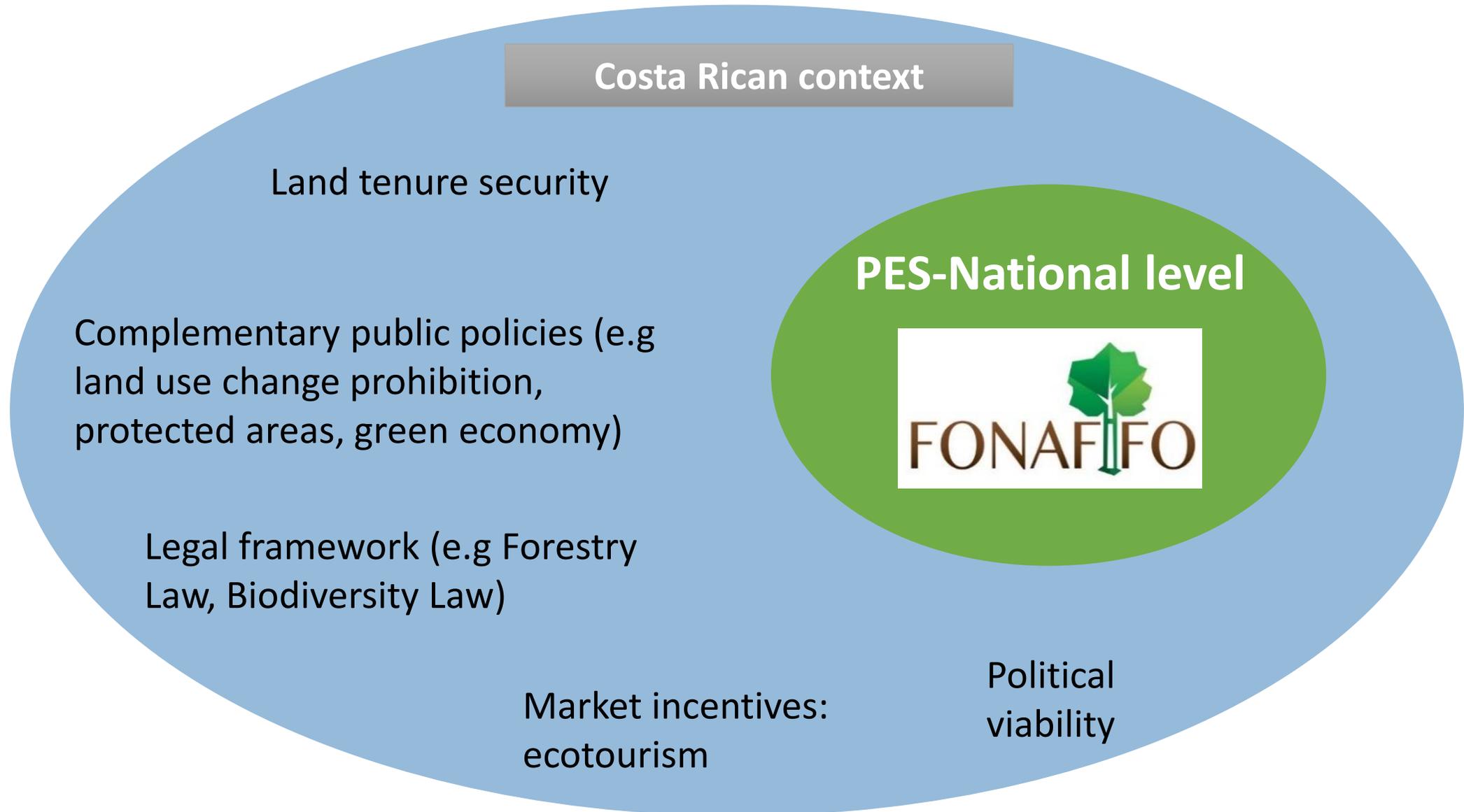
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Policy milestones



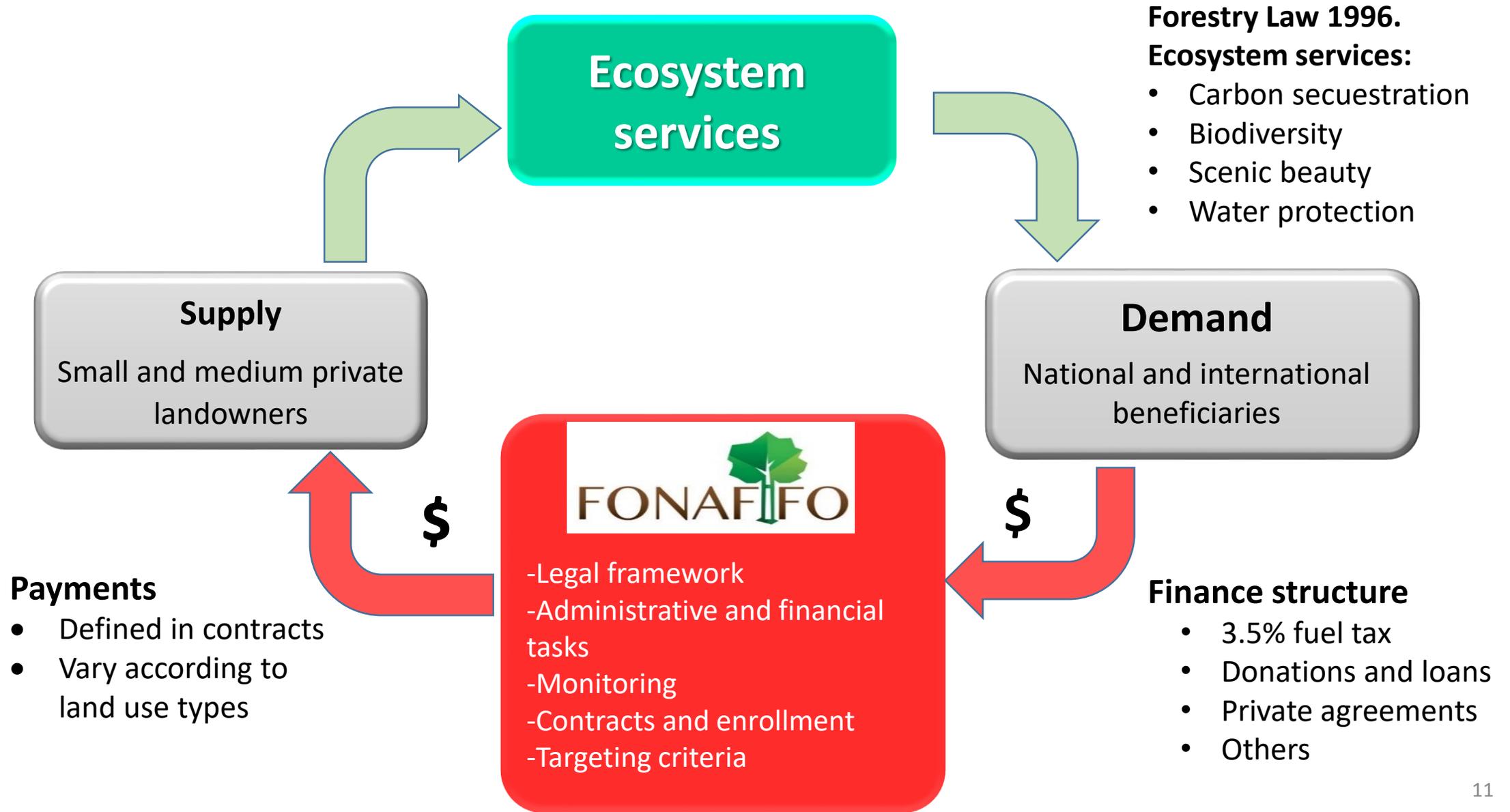
PES success: a blend of enabling conditions





Program Description

Government-funded PES



Financing

Tax on fossil fuel

Most important source of income

- US\$ 20 to US\$ 35 millions per year
- In 2017, the tax represented 92% of the program's income

Diversification strategy

\$\$



\$\$



**Voluntary agreements with
hydroelectric companies &
other private companies**

Other products



But, there's one problem...

SUPPLY - \$\$ < DEMAND - \$\$\$

The budget accommodates only ~50% of program applicants

Evaluation matrix

<i>Prioritization criteria</i>		<i>Qualifying points</i>
<input checked="" type="checkbox"/>	Forests located in areas defined within Conservation Gaps. Forests within the Indigenous Territories of the country.	85
<input type="checkbox"/>	Forests located within the Biological Corridors officially established. Forests that protect water resources.	80
<input type="checkbox"/>	Forests located within the Protected Areas and which have not been bought or expropriated by the state.	75
<input type="checkbox"/>	Forests out of any of the above priorities.	55
<input type="checkbox"/>	Forests for forest protection complying with the provisions of the above, where contracts have been signed for PES in previous years.	10 additional points
<input checked="" type="checkbox"/>	Forests on farms located in districts with Social Development Index (SDI) of less than 40% as determined by the Ministry of Planning MIDEPLAN.	10 additional points
<input type="checkbox"/>	Forests in any of the above priorities, with an application to enter PES in areas less than 50 hectares. These points apply only if the area of the property is equal to or less than 50 hectares.	25 additional points
<input type="checkbox"/>	Forest protection projects handled by organizations with existing agreement with FONAFIFO.	10 additional points

Examples of types of payments



Forest protection

- US\$ 277.5 per Ha
- Contract duration: 5 years



Protection of the water resource

- US\$ 347 per Ha
- Contract duration: 5 years



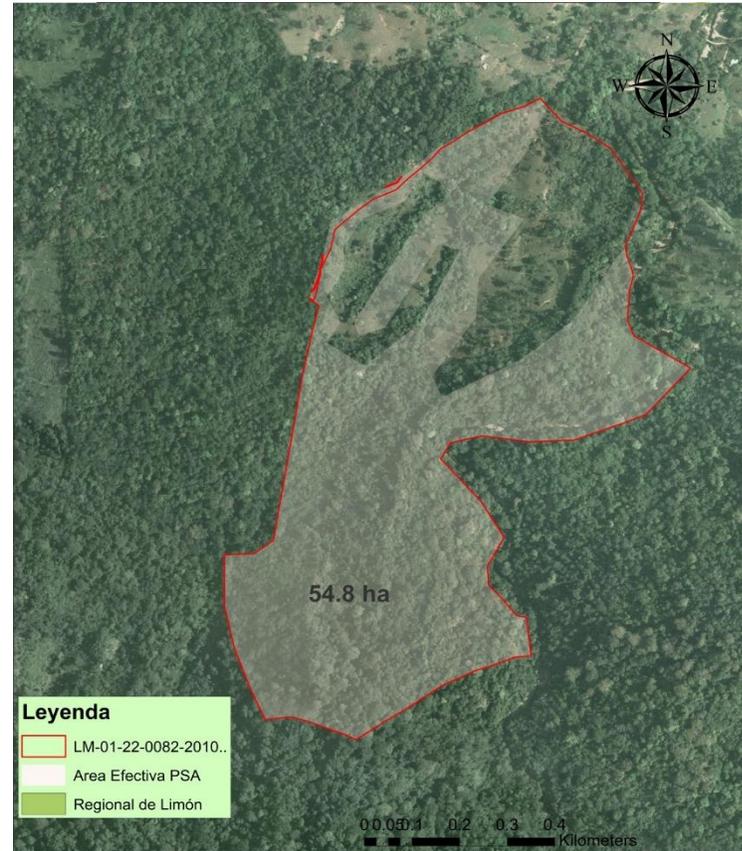
Natural regeneration

- US\$ 178 per Ha
- Contract duration: 5 years

Control Mechanisms - Conditionality



Visits on field



GIS systems

FONAFIFO

Solicitudes de Ingreso al PSA

ID	Urb	REP	Org. PSA	Ubicacion	Actividad	Sub Actividad	Fecha Registro	Financiar	Nombre Usuario	Organizacion	Con Carta	Estado
1							24/01/2018 08:02:03 a.m.	8-403-2017-00008	SUBSISTEMAS S.A.S.			ARCHIVADA LEGAL
2							24/01/2018 08:02:03 a.m.	8-403-2017-00008	ADMINISTRACION JAPURA HERRERA SOCIEDAD ANONIMA			SELECCION SIN ESTADISTICA
3							30/01/2018 08:02:07 a.m.	8-403-2017-00008	CLAUDIO HERRERA GONZALEZ			OPERA METRICA PROYECTO
4							30/01/2018 08:02:05 a.m.	8-403-2017-00008	GILBERTO RAMIRO QUINONES			OPERA METRICA ASESORIA DE DISEÑO
5							30/01/2018 08:02:07 a.m.	8-403-2017-00008	SCULLERANQUE ENTRE LOS ARBOLES SOCIEDAD ANONIMA			NOTIFICACION A REVISOR
6							30/01/2018 08:47:38 a.m.	8-403-2017-00008	JOSE DIMITEL HERRERA	FUNDECOR		ARCHIVADA RESERVA
7							30/01/2018 08:46:17 a.m.	8-403-2017-00008	ECO EN SOCIEDAD ANONIMA			ARCHIVADA LEGAL
8							30/01/2018 08:56:02 a.m.	8-403-2017-00008	COMUNIDAD AGROPECUARIA RINCON GRANDE TULLIO HERRERA SOCIEDAD ANONIMA			CALIFICACION NOTIFICA
9							30/01/2018 09:06:10 a.m.	8-403-2017-00008	ARIBOLLA CALDERON SOCIEDAD ANONIMA	CAC-OUTA		CALIFICACION NOTIFICA
10							30/01/2018 09:27:01 a.m.	8-403-2017-00008	CARLOS SANCHEZ PALLO			CALIFICACION NOTIFICA
11							30/01/2018 09:22:06 a.m.	8-403-2017-00008	VILMAR HERRERA ROJAS			OPERA METRICA PROYECTO
12							30/01/2018 09:40:59 a.m.	8-403-2017-00008	AGROPECUARIA SAN BUENO SOCIEDAD ANONIMA			ARCHIVADA LEGAL

Data management

Fact sheet

- More than **1.1 million ha** have been enrolled in the program to date, of which about 90% are associated with forest protection
- **7,090,357 trees** in agroforestry systems
- **17,000** PES contracts
- The **enrollment** numbers of smallholders, indigenous communities, and women in the program have improved over time.

Impact Evaluation: Deforestation

- Little impact of PES program to reduce deforestation (Robalino & Pfaff, 2013).
- Lessons:
 - FONAFIFO needs to explicitly target areas with deforestation pressure
 - Necessity to adjust payments to actual opportunity costs

Impact Evaluation: Poverty & Labor

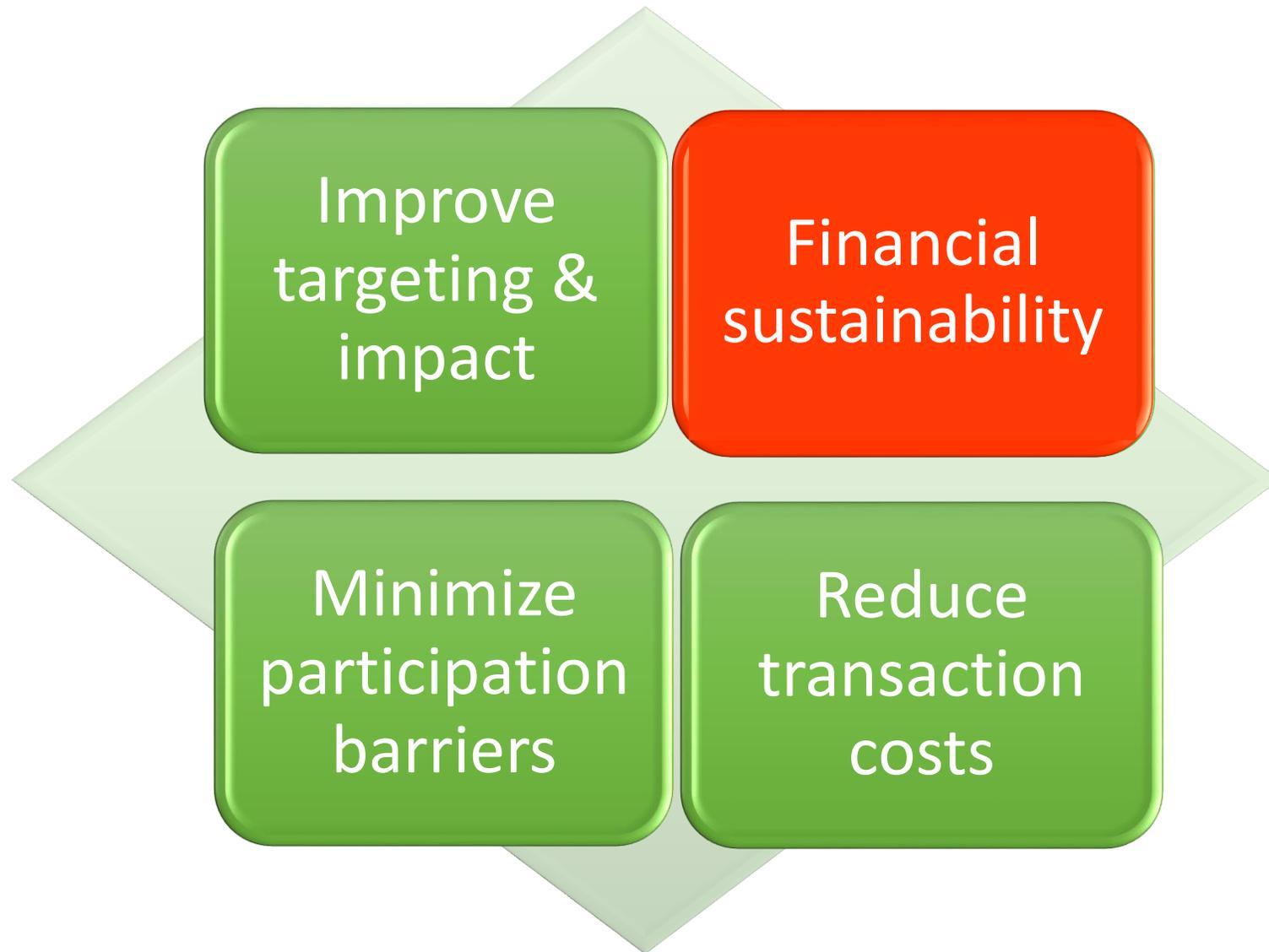
- PES program has affected poverty substantially between 2007-2009 (Alpizar, Robalino, Sandoval & Villalobos, 2014).
- How to increase the impact on poverty?
 - Change actual criteria of selection based on location of farm to a criteria based on socioeconomic characteristics of applicant



Challenges



Some challenges

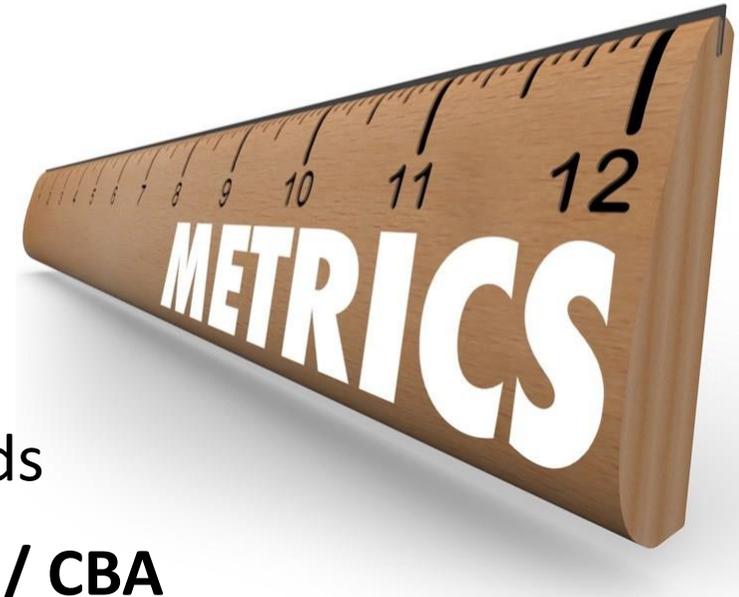


Dependency on fuel tax

- Increase size of tax: not politically viable
- Vulnerability to macroeconomic and political changes.
- In the context of *decarbonization*, tax revenues would decrease substantially ... **what can be done?**

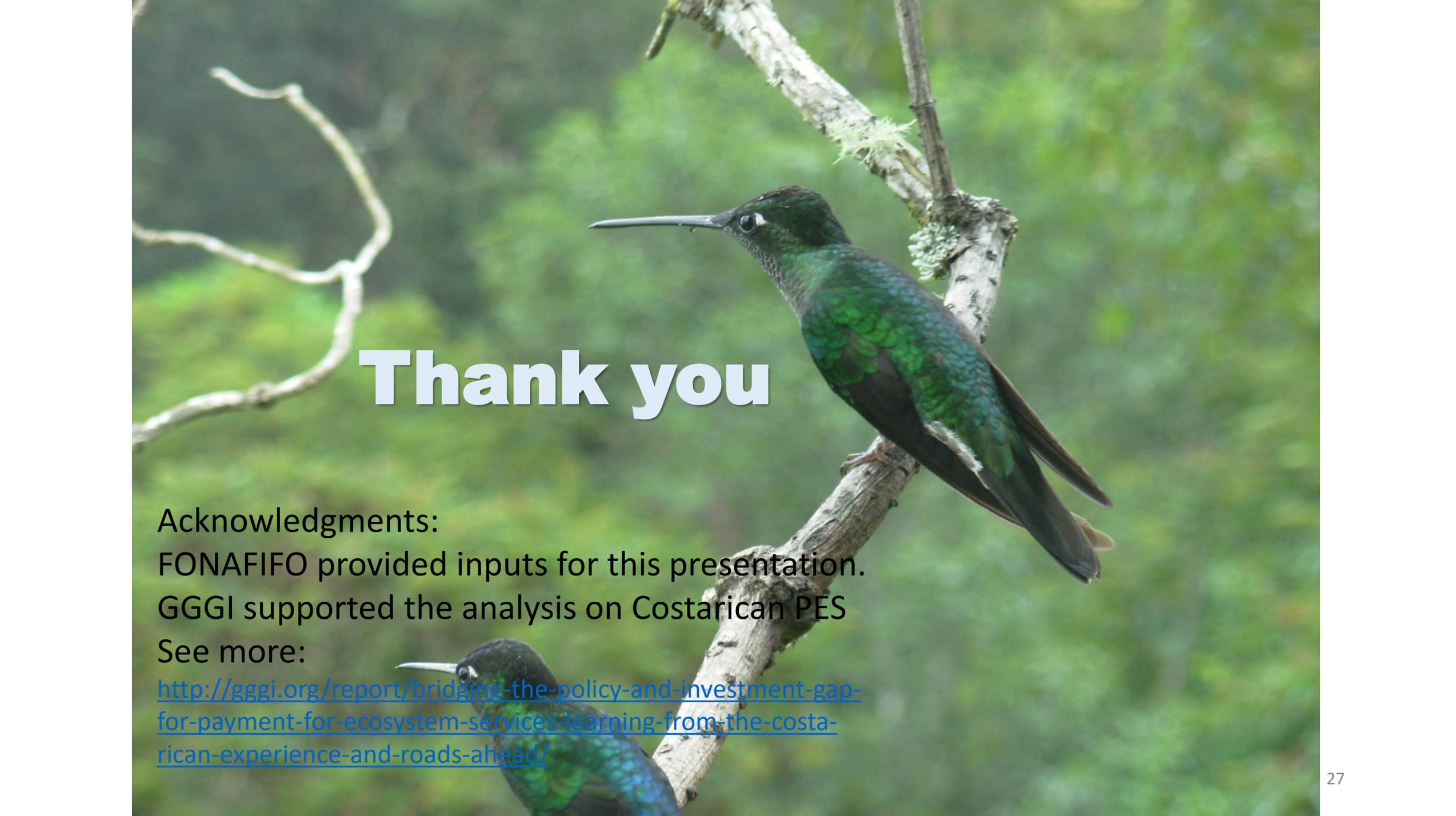
Increasing private participation further

- **Stronger scientific evidence on benefits provided**
 - Moving from donor-based to investor-based approach
- **What is being sold? → value for the money**
 - Rigorous investment decision tools (e.g Rios/INVEST)
 - Develop standardized metrics and verification methods
 - Sound economic valuation methods → **Business case / CBA**
 - Strong institutions for credibility and low transactions costs



Take-home messages

- PES success does not emerge in vacuum
 - ✓ PES as part of a policy mix
- Adaptive approach is key
- Private sector participation:
 - ✓ Necessity but requires better science and institutions

A photograph of two green hummingbirds perched on a branch in a forest. The background is a soft-focus green forest. The text 'Thank you' is overlaid in white on the left side of the image.

Thank you

Acknowledgments:

FONAFIFO provided inputs for this presentation.

GGGI supported the analysis on Costarican PES

See more:

<http://gggi.org/report/bridging-the-policy-and-investment-gap-for-payment-for-ecosystem-services-learning-from-the-costarican-experience-and-roads-ahead/>