

# PAYMENT

## FOR ENVIRONMENTAL SERVICES IN THE CONTEXT OF SUGARCANE PRODUCTION

NOVEMBER  
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FUNDING PARTNER



COORDINATING PARTNER



KNOWLEDGE PARTNERS



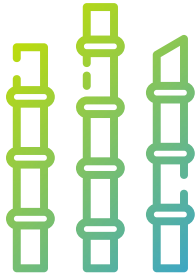
DELIVERY PARTNER



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# 1 Introduction

**E**cosystem Services are defined<sup>1</sup> as the conditions and processes by which ecosystems provide livelihood for human lives. Another definition<sup>2</sup> found is: “Ecosystem services are components of the ecosystem that can be consumed or used to produce human well-being”. In this context, if properly managed, it is fair to say that the soil system is capable of providing several ecosystem services, such as water and air regulation, erosion control and carbon stocks.

Different authors<sup>3</sup> adopt the concept of *Environmental Services* as the human activity that contributes to managing or enhancing the provision of benefits through the environment.

Existent *Environmental Services* can be grouped<sup>4</sup> in at least one of the following four categories: (i) carbon retention/carbon credits; (ii) conservation of biodiversity; (iii) conservation of water resources and (iv) conservation of scenic beauty.

The present report will follow the definition given for *Environmental Services*, in addition to another concept created and referred to as **Payment for Environmental Services (PES)**. PES can be defined as a voluntary transaction between one beneficiary of well-defined environmental service and one party supplying this service, under the condition that the provider will guarantee its continuity<sup>5</sup>.

PES approach has started with the intention to promote conservation and restoration of damaged ecosystems<sup>6</sup>. The number of PES programs has also increased considerably for the public segment as well as for the private initiative<sup>7</sup>.

Therefore, regardless of the nature of the PES (program, project or initiative - this report does not distinguish this terminology), it is possible to infer that the application of PES concept can turn into an interesting tool, since in addition to promoting environmental protection and stimulating the sustainable usage of natural resources, it also recognizes and financially rewards actors that preserve nature. In order to achieve harmony between environmental conservation and agricultural production, it is necessary to work for the multifunctionality of the rural landscape - the proper use of land does bring a number of different benefits. The ecosystem approach is now trending as part of the future of agriculture, however, the agricultural sector, and more emphatically the sugarcane sector, still does not consider the full provision of environmental services as a mechanism for its sustainability.

This context resulted in the research question of the present study: **is it possible to implement PES programs/projects/initiatives within the sugarcane supply chain by recognizing good environmental conservation practices of sugarcane producers as providers of environmental services?**

This is a joint project sponsored by Earth Innovation Institute under its Forests, Farms & Finance Initiative and executed by Bonsucro and its members Orplana (Organization of Associations of Sugarcane Producers of Brazil), Socicana (Association of Sugarcane Growers of Guariba) and Solidaridad Brazil, with technical assistance of Geoflorestas consultancy.

1 Daily (1997); Smil (2002); Wunder (2005); 2 Chomitz et al. (1999); 3 Farley (2012); Odum and Odum (2000); Boyd and Banzhaf (2007); 4 Wunder (2008); 5 Groot et al. (2002); 6 Daily and Farley (2004); 7 SMA/CBRN (2013).

## 2 Objectives



This project aims to:



Understand PES concept and its main projects in place around the world.



Understand PES in the overall context of sugarcane production, with focus on Brazil.



Bring relevant players from the national and international sectors to debate.



Raise opportunities and challenges around the topic to feed the potential creation of a work agenda following this project.

◆◆ The final product of this project is the present insights report. ◆◆

## 3 Methodology



The present project was divided in two phases whose main steps can be summarized in the scheme below.

### PHASE 1

#### Mapping of existent PES initiatives



Exploratory desk research on existent PES initiatives.



Categorization of selected initiatives, production of executive summary tables and georeferenced maps.

### PHASE 2

#### Interviews with experts



Selection of key stakeholders for interviews.



Summarization of raw insights into key insights and classification in opportunities and challenges.

# Phase 1: Mapping of existent PES initiatives



The project started with an exploratory desk research that intended to map existent initiatives in the world and in Brazil that already work with the concept of PES. This was important to establish a baseline of PES initiatives and extract initial learnings that could be helpful for Phase 2, where a deeper analysis was going to be made.

The search was conducted using keywords in public sources of information related to PES, both in English and in Portuguese. The data was then compiled for analysis and selection of projects that might have been of higher interest for the sugarcane context, based on the experience of the researchers. Each selected initiative was then classified in one of the following categories of environmental services.

## Environmental Service

1



### Resources Management

Management of natural resources as a whole, such as water conservation, soil integrity, preservation of vegetation cover throughout the region. The payout is generally through money or tax reductions.

2



### Water Resources Management

Specific management of water resources, such as the need for reforestation of the buffer area for water production and reducing eutrophication, conservation of water sources for human/animal consumption and/or agricultural uses. The main focus of this type is to invest in farmers or other landowners that need a financial incentive to maintain the vegetation close to the rivers.

3



### Biodiversity Conservation

Conserving endangered species, animal or plant, focusing on developing the area in order to support the presence of related species. The investment is related to enabling farmers or landowners to keep preserving/restoring species' natural habitats.

4



### Forest Conservation

Conservation/restoration of forests and vegetation as the main focus of investment. It enables farmers and landowners to financially manage their forest land without having to deforest.

5



### Carbon Credit

When environmental action is focused on GHG mitigation and the payout given to the farmers/landowners is in the form of Carbon Credit.

The final outcome of Phase 1 consisted of executive summary tables with key information for each one of the selected PES initiatives, as well as global and regional Google Earth maps that geographically positioned the location of each PES initiative.

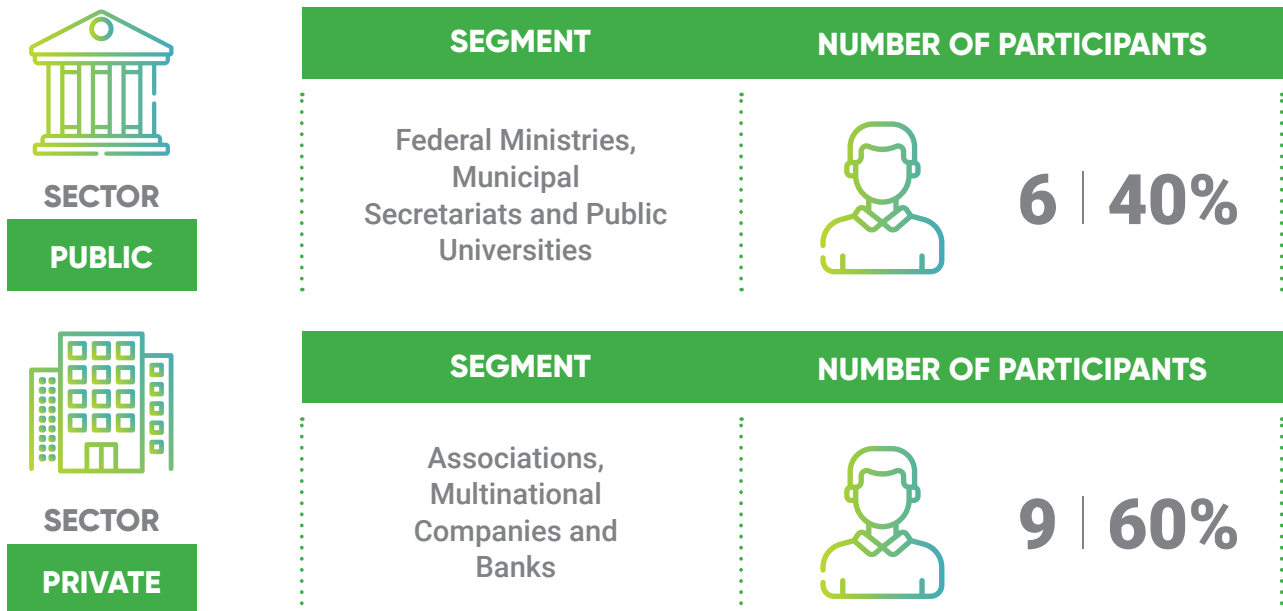
## Phase 2: Interviews with experts



The objective of Phase 2 was to deepen the initial learnings extracted in the mapping phase by consulting with specialists in order to explore opportunities and challenges for the consolidation of the PES concept in the sugarcane context.

Firstly, key stakeholders were selected aiming at covering representatives of diverse segments in areas of interest related to PES, for instance, people acting in the environmental area, representatives of the Academy, public and private sectors. Each stakeholder was then contacted and sent an invitation letter.

There were 15 participants interviewed in total, of which 9 were from the private initiative and 6 were from the public sector. The profile of the participants can be visualized below.



The interviews took place online using videoconferencing platforms and based on a semi-structured questionnaire. Confidentiality was assured regarding names of participants and institutions. Following each meeting, the recording was stored and had its content transcribed.

Each transcription was then carefully analyzed in light of PES concepts and its implementation in the sugarcane context. The analysis included two distinct fronts, being the first a ranking of priorities of environmental services considered by each organization and sector, and the second the collection of insights related to the implementation of PES initiatives within the context of sugarcane production.

The insights were tabulated and identified by number and segment. The interviews resulted in a number of raw insights that were then summarized in key insights and also classified in opportunities and challenges. This content is going to be further discussed in the next section and has supported the conclusions of this study.

# 4 Results and analysis



In the following sections the results of both phases 1 (mapping) and 2 (interviews) will be presented along with a brief discussion.

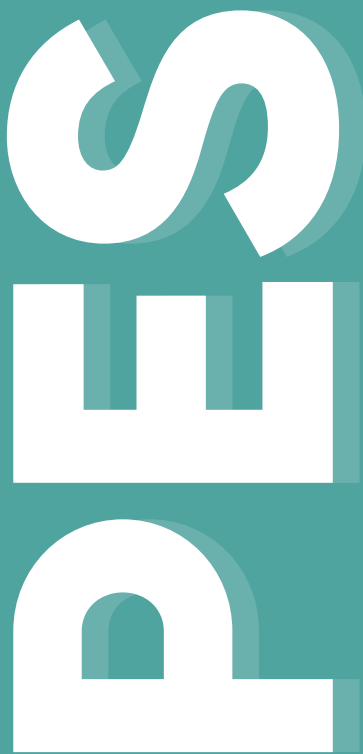
## 4.1

### Phase 1: Mapping of existent PES initiatives



This [document](#) contains the summary tables and maps of initiatives around the world that already approach the topic of Payment for Environmental Services. The overall research found 76 initiatives worldwide, but only the 50 most relevant for the sugarcane context were included in the summary tables and maps.

These 50 initiatives were categorized in the five types of environmental services and shown in the maps per region based on the country/region where it is applied as scope of work. As an example, if there is an initiative placed at a certain country, it means that the environmental service provided comes from that country, regardless of where the financial resources are coming from.

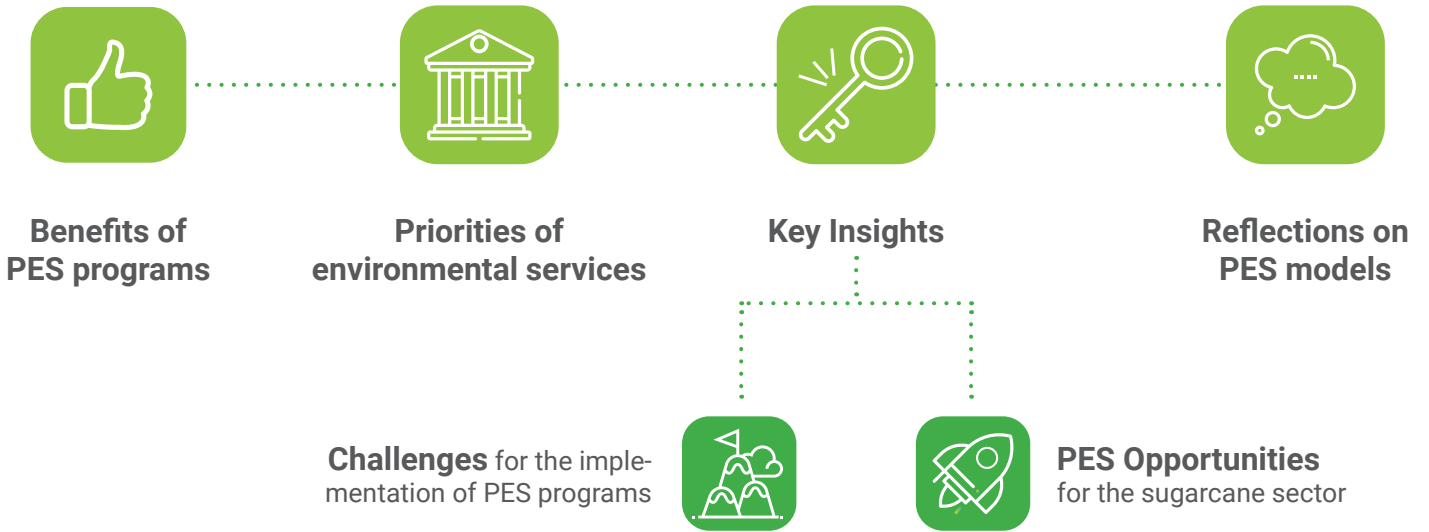


- This initial phase showed that there are many initiatives in place all around the world that work with Payment for Environmental Services and that could generate learnings for the sugarcane production context.
- Both public and private sectors are investing in PES models, many times together, as most initiatives found were public-private partnerships (48%), followed by public-only (22%), NGO (16%) and international funds or private-only (14%).
- In terms of geography, these 50 selected initiatives come from 16 countries from all continents, which shows a wide dissemination of the PES practice around the world.
- Most projects aim to provide the environmental service of Forest Conservation (68%) followed by Carbon Credits (20%). The other categories accounted together for 12%.
- As for the related biomes, most initiatives are focused on preserving atlantic forests (36%), followed by the Amazon forest (18%). 30% of mapped projects have no specific biome as scope, and the other 16% are spread in fragmented biomes such as savannah and also specific rivers.

# Phase 2: Interviews with experts



In the following sections the content of the interviews will be broken down and summarized as:



## Benefits of PES programs



**P**ES programs were recognized by all respondents as **an important stimulus for environmental conservation practices**. While they are not the only possibility, they can be very effective if their criteria are clear.

They can mobilize farmers/land-owners to understand the real value of standing forest, even if not directly “productive”, by incentivizing them to conserve their forested areas, as well as promoting the restoration of the ones impacted.

As one of the municipal secretariats’ respondent mentioned: *“PES is a powerful instrument. It has a unique aspect as an economic instrument - it fosters innovation considering the components of the ecosystems. But for this to work,*

*there must be an initial incentive – and PES programs make this possible”.*  
 From a private association: *“In the end, PES programs have many positive externalities. The more obvious ones: CO2 sequestration, improvement of thermal comfort, increase on biodiversity variety”.*

Multinational Companies and Banks explained that *“there are a myriad of benefits throughout the supply chain, but helping the farmer itself is the biggest benefit that environmental services provide – making it a win-win scenario for all parties involved”.*



Based on all interviews, it is possible to summarize the **3 main benefits** identified for PES initiatives:

**Adding financial value to farmers while ensuring environmental preservation.**

**Offering guidance on how (practices) and how much to preserve.**

**Enhancing livelihoods within the region it is developed.**

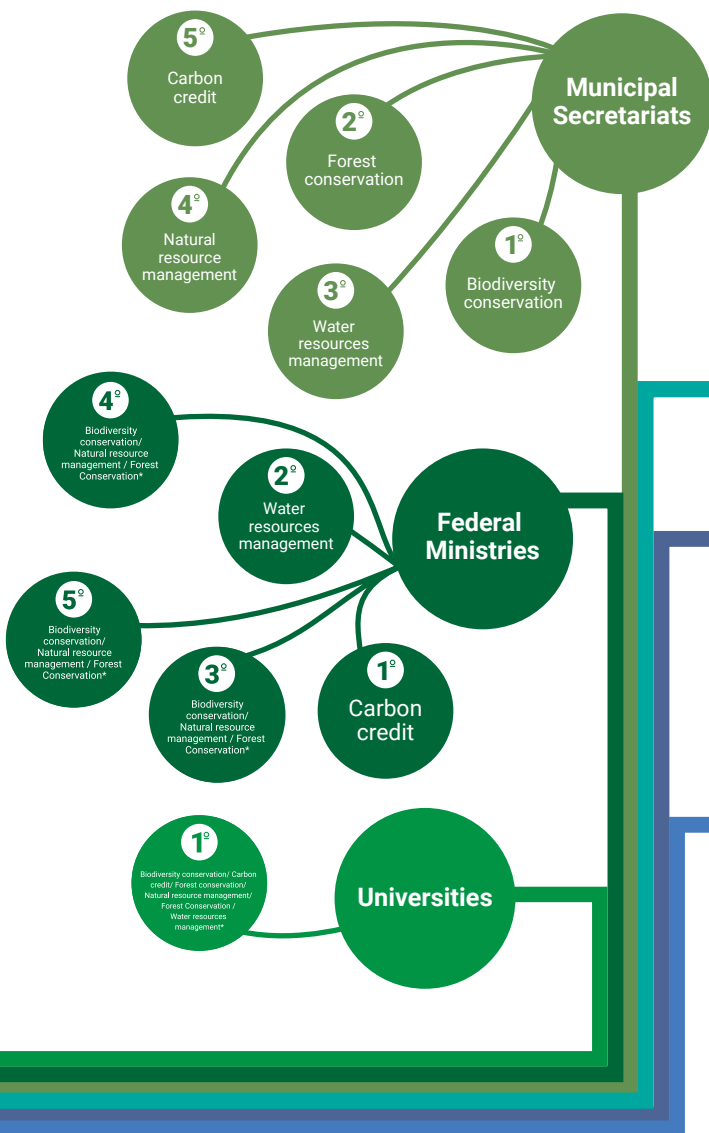


# Priorities of environmental services

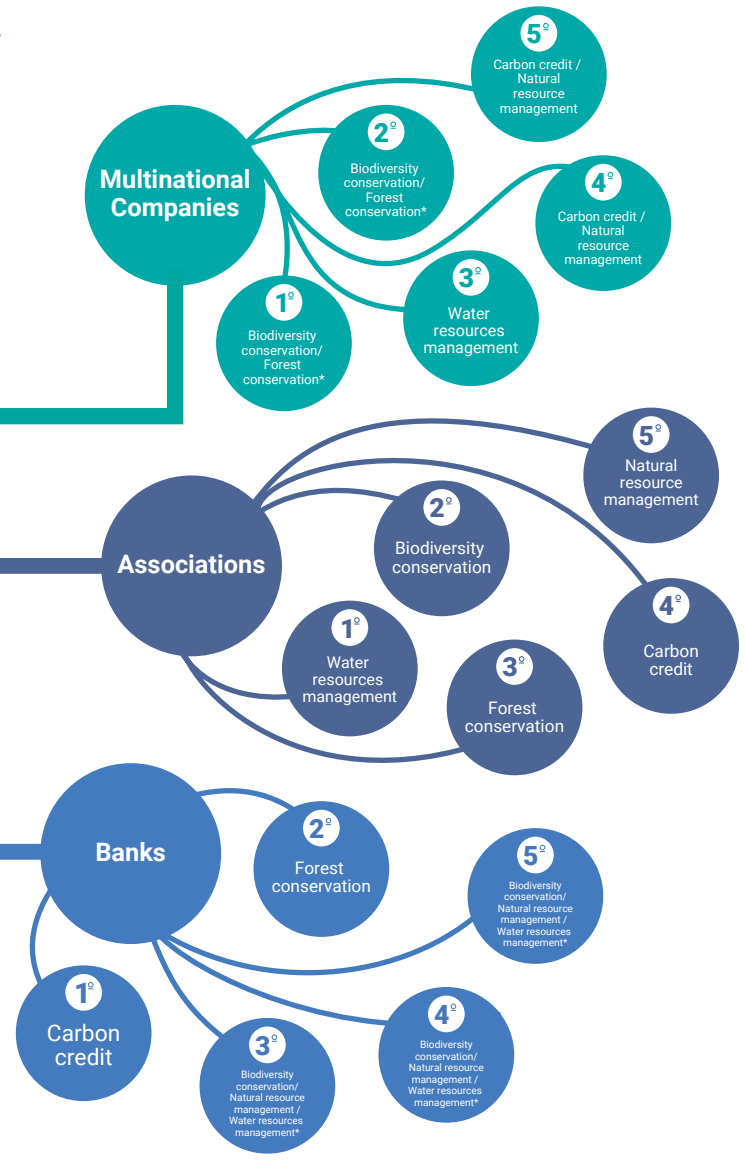


All interviewees were invited to share their views on their environmental priorities based on the 5 categories of environmental services shown in section 3.1. The complete list of environmental services priorities identified through the interviews, per sector and segment, can be seen below.

## Public Sector



## Private Initiative



Priority evaluation of environmental services by sector and segment. (\*) When environmental services are stacked on the same ranking, the related participants considered them equally important.

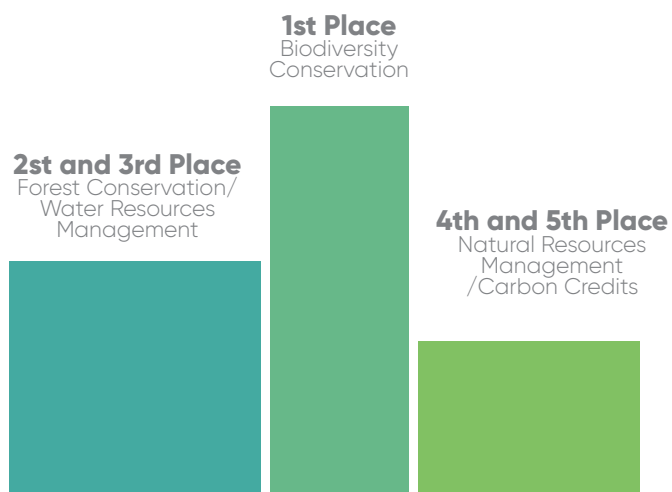
It was possible to observe that throughout both sectors, the priority that appears most as first place is **Biodiversity Conservation**, followed both by **Forest Conservation** and **Water Resources Management** on the same level (both 2nd and 3rd places). Specific sectors mentioned the importance of **Natural Resources Management** and **Carbon Credits**, but these categories were generally classified on the lower end of the importance scale (4th and 5th places).

In summary, it is possible to see a relative synergy between the public and private sectors when it comes to what the priorities are around environmental services, predominantly *Biodiversity, Forest and Water conservations*.

Some participants based on the premise that, **by preserving forests, all the other environmental services would be also positively impacted**, triggering a chain-reaction.

**Carbon credits** were the first priority for Federal Ministries and Banks due to their increasing role as a sustainability tool within the financial market, with successful examples of programs already implemented.

**Water resources** were also taken within the top 3 priorities by most participants because of their relevance in the sugarcane supply chain as an important resource widely utilized in the agricultural and industrial phases.



## Key Insights

### 4.2.3

The 15 interviews of Phase 2 resulted in 236 raw insights, that were grouped based on similarity and resulted in 7 key-insights, classified as 2 challenges and 5 opportunities.



Opportunity



Challenge

- 1 Agriculture and environmental conservation are not excluding, but complimentary.
- 2 The market has been increasingly recognizing good agricultural practices that preserve natural resources, and this is being driven by different models and actors
- 3 There is lack of common understanding of PES fundamentals and more standardization and education is needed.
- 4 PES models have a huge potential to generate environmental positive impact and there is a growing appetite for them.
- 5 There is no ideal PES model, and each program needs to be structured considering local particularities, a clear definition of assets and KPIs, traceability requirements, environmental long-term benefits and financial counterparts.
- 6 Certification can be understood as one PES model that enables environmental services provided by farmers to be credibly quantified and offered to the market, although still not entirely accepted as such.
- 7 Sugarcane farmers are essentially providers of different environmental services and should be eligible to access PES programs, such as RenovaBio, but need to better communicate with the market.



## Challenges for the implementation of PES programs



**Key Insight 3 (Challenge): There is lack of common understanding of PES fundamentals and more standardization and education is needed.**

Most respondents wondered what exactly was meant by PES when they were first asked. That showed that this concept is still challenging to be comprehended and not widely known. Despite still seen as an academic concept by many, all participants recognized the importance of setting clearer definitions and guidelines for PES and a wish to see more dissemination of it across different supply chains. It was also highlighted by many about the necessity of educating the production side of the chain on the risks for agriculture when the environment is not preserved.

**Key Insight 5 (Challenge): There is no ideal PES model, and each program needs to be structured considering local particularities, a clear definition of assets and KPIs, traceability requirements, environmental long-term benefits and financial counterparts.**

Although mainly multinational companies are very interested in supporting more sustainable practices – and a PES program was

put as one format – they assume it is hard to define the frameworks of those programs. By framework they mean aspects like geography, KPIs, size of farmers, environmental outcomes, among others. It was said that many existent practices that are contributing to the environment could be fundamentally labeled as environmental services, although many are not. In addition of not being a widely known concept (see key insight 3), participants shared that it would be challenging to scope PES programs and its many perspectives, for instance, business, societal and moral ones. Many brought that they see local actions, such as water reduction, as easier to define for a PES program, but also recognized that there are global services, such as carbon sequestration, that have the potential to become cross-regional markets. It was also mentioned that existent PES programs are seen many times as welfare programs and this can keep interested parties away. This is one of the reasons why it is essential to define why and who should pay within the framework of a PES program.

## PES opportunities for the sugarcane sector



### **Key Insight 1 (Opportunity): Agriculture and environmental conservation are not excluding, but complimentary.**

According to interviewees, agriculture and environmental conservation practices are still widely seen as excluding, despite increase of the awareness that both are actually complimentary. Data and facts that support this thesis should also be better communicated among all actors. The logic should be that forests standing allow agriculture to thrive, and not the opposite. Many still do not realize the risks that climate change can bring to agriculture and, according to participants, they are huge and there is a big opportunity here to further disseminate these concepts in the sugarcane value chain.

### **Key Insight 2: The market has been increasingly recognizing good agricultural practices that preserve natural resources, and this is being driven by different models and actors.**

It was widely recognized that different actors have been incentivizing more the adoption of agriculture best practices, such as financial institutions and brands. Most Brazilian farmers are also keen to engage with environmental preservation, even more when, at the same time, they need to comply with a strict national environmental law, such as the Forestry Code. Both legislation and voluntary initiatives were recognized as important drivers of environmental improvements. However, there seems to be a slightly higher preference for market initiatives and its huge potential to generate positive impact, rather than relying only on public funding.

### **Key Insight 4: PES models have a huge potential to generate environmental positive impact and there is a growing appetite for them.**

The many benefits of existent PES programs were acknowledged, such as the potential to change behaviors, prevent deforestation, improve the economic situation of a region and combat climate change. There seems to have a more prominent interest in creating PES programs related to carbon mitigation due to climate urgency, however, as previously mentioned at section 4.2.2, keeping forests standing can trigger multiple environmental benefits.

Organizational commitments and targets also welcome PES programs, as well as Brazil's new agribusiness law and Central Bank's sustainability agenda.

### **Key Insight 6: Certification can be understood as one PES model that enables environmental services provided by farmers to be credibly quantified and offered to the market, although still not entirely accepted as such.**

There is good agreement with the idea of certification playing the role of being a PES framework, offering clear criteria and market options to "pack" environmental services and put them for sale. A potential premium paid for a certified volume is also mostly understood as PES. There is a need to increase awareness at the consumer level regarding sustainable certifications, though. Certification is also taken as a reliable mechanism to assure traceability, although some mentioned that there are more modern ways of doing so, such as block chain. A punctual interview showed that a certain segment within the public sector still sees certification as a commercial barrier.

### **Key Insight 7: Sugarcane farmers are essentially providers of different environmental services and should be eligible to access PES programs, such as RenovaBio, but need to better communicate with the market.**

There was no doubt that sugarcane farmers are providers of various environmental services, from carbon sequestration to biodiversity conservation. RenovaBio is the most adopted PES program in Brazil nowadays for sugarcane sector, although sugarcane farmers are still not yet officially contemplated. Some mentioned there is an opportunity to expand the scope of environmental services being offered other than carbon, and this could be done by integrating RenovaBio with other programs or creating new and more complete ones. Despite the wide recognition, Brazilian farmers in general are still criticized by the media for generating impacts, which brought many participants to say that farmers need to better communicate their achievements based on credible data and KPIs, and not only just for the sake of saying it.

## Reflections on PES models



Throughout the interviews a few existing models were mentioned as PES models:

### Certification

As a framework with defined criteria and a tool for market access, certification is viewed as a possible PES model, since it allows farmers to quantify their environmental services and offer them for sale.

### Carbon credit markets

A rapidly growing market, projects of carbon sequestration and mitigation are seen as PES models for farmers, that could be implemented by both public and private sectors.

### Government programs (e.g., taxes)

Converting taxes into PES investment funds that will be used to promote good agriculture environmental practices was mentioned as a way of making PES a reality.

### Sustainable finance products

Accessing green financial products can be a model for PES for farmers, according to many experts interviewed. Loans, bonds, insurances - the nature of a candidate project can generate environmental services and be recognized with lower rates.

### Co-shared program between brands and their suppliers

It is common nowadays to have clients creating programs to reward their best-rated suppliers based on environmental criteria. When these criteria include measuring and keeping environmental services active, farmers can be fairly recognized for their good practices.

For all of the possible models above, it is essential to define who is eligible to take part, who is the payer and why. There is a general view that the payers should be the ones that use or are benefited by the environmental service, or the ones that cause negative externalities. The “who should pay” topic is still not a common ground and needs further thinking.

Brazil is moving in the direction of all of the above PES models. There are many initiatives in place in addition to RenovaBio, such as national program Floresta+ of Ministry of Environment, without mentioning the Bonsucro certification that has Brazil as its main origin. All types of sustainable bonds and other green financial instruments are also becoming more and more adopted.

# 5 Conclusion: recommendations for future action



Based on the content generated by the present study, the following 5 recommendations for future action can be listed. The idea is to address the challenges and explore the opportunities by a set of actions to advance with PES agenda in Brazil, specifically for the sugarcane production context, although most of these suggestions could be also taken by farmers as a whole, regardless of crop and geography.



**1** Coordinate discussions to mature the concept of Payment for Environmental Services (PES) within the sector.



**2** Get familiar with and contribute to disseminating existing PES programs ([see here](#)) among sugarcane farmers.



**3** Improve knowledge level on methodologies and frameworks used to measure and quantify different environmental services.



**4** Articulate with public and private initiatives through sector associations and multi-stakeholder platforms in order to foster adoption of existing PES models (section 4.2.4) and the creation of new ones.



**5** Prepare more attractive business materials for sugarcane farms based on credible data, measurable KPIs and a robust story, as well as sharing these with the media.



# 6 About the partner organizations



## EARTH INNOVATION INSTITUTE

As world demand for food, fiber, feed and fuel outpaces supply, increases in production are urgently needed. Increased production must be achieved while maintaining and rebuilding forests and fisheries and slowing the release of greenhouse gases to the atmosphere. Tropical nations hold the greatest potential to produce more food for the planet. By increasing the productivity of already-cleared land and building on recent successes in slowing deforestation, we can feed more people while ending deforestation and mitigating climate change. The Earth Innovation Institute fosters this transition to low-emission rural development – a shift to economic growth that keeps forests and fisheries intact and rewards farmers, ranchers, and fishermen for using sustainable practices.

**Website:** <https://www.earthinnovation.org/>

## FORESTS, FARMS & FINANCE INITIATIVE

The Forests, Farms and Finance Initiative seeks to address the major challenges facing developing nation societies such as the destruction of tropical forests and other native ecosystems and resulting emissions of CO<sub>2</sub> and other greenhouse gases to the atmosphere, the erosion and loss of soils, the degradation and depletion of freshwater delivery systems, and the disruption and displacement of indigenous, traditional and smallholder communities that occur as agricultural and livestock production systems expand “horizontally” through forest conversion and resulting land conflicts by linking incentives for more environmentally and socially responsible agricultural commodities production with initiatives to reduce deforestation and other environmental degradation. Each regionally tailored strategy seeks consensus on specific targets for reducing deforestation, increasing agricultural productivity and improving small-

holder livelihoods in each target jurisdiction, or territory as it designs incentive systems and monitoring platforms for achieving these targets. These strategies are driven by a diverse consortium that includes non-governmental organizations, major commodity roundtables (the Round Table for Responsible Soy, the Roundtable on Sustainable Palm Oil, Bonsucro, and the Global Roundtable for Sustainable Beef), private companies and sub-national governments. Each partner in the consortium brings a unique set of skills and network to contribute to engaging farm sectors, finance institutions, traders, commodity buyers, governments, and civil society in a consensus-building process using a “bottom-up” approach.

**Website:** <https://earthinnovation.org/our-work/global/forests-farms-finance-initiative/>



**BONSUCRO**

Bonsucro is a global multi-stakeholder non-profit organization that exists to promote sustainable sugarcane production, processing and trade around the world. Bonsucro supports a community of over 280 members in over 50 countries, from all elements of the sugarcane supply chain, including, farmers, millers, traders, buyers and support organizations. Bonsucro’s vision is a sugarcane sector with thriving, sustainable producer communities and resilient, assured supply chains. Our mission is to ensure that responsible sugarcane production creates lasting value for the people, communities, businesses, economies and eco-systems in all cane-growing origins. Bonsucro’s strategy builds a platform to accelerate change for the largest agricultural commodity in the world – sugarcane.

**Website:** <https://www.bonsucro.com/>

# Solidaridad

## SOLIDARIDAD NETWORK

Solidaridad is an international civil society organization with more than 50 years of experience that operates in over 40 countries with the goal of promoting the development of value chains that are socially inclusive, environmentally responsible, and profitable in the fields of agribusiness and artisanal mining. It forms partnerships and generates innovative solutions for both sectors with businesses, governments, and commerce organizations to help farmers to increase and improve their production, thus promoting the transition to agricultural production that respects the planet. In Brazil, Solidaridad works with focus on the sustainability of eight commodity value chains - cotton, cocoa, coffee, sugar cane, yerba mate, orange, livestock, and soy - contributing to food and climate security.

Website: <https://www.solidaridadsouthamerica.org/brasil>



## ORPLANA (ORGANIZAÇÃO DE ASSOCIAÇÕES DE PRODUTORES DE CANA DO BRASIL)

ORPLANA - Organization of Cane Producers Associations in Brazil - was founded on June 29, 1976, with the purpose of organize the class of producers and increasing their representation in Brazil and abroad. Our Mission is to ensure a secure and profitable future for sugarcane producers seeking excellence in agricultural production and coordination of the sugar-energy chain. With headquarters in Ribeirão Preto / SP, it currently has 32 associations of sugarcane suppliers, of which 24 are in the state of São Paulo, 1 in Mato Grosso, 1 in Mato Grosso do Sul, 3 in Minas Gerais and 3 in Goiás. ORPLANA represents approximately 11,000 suppliers of sugarcane in the entire Central-South Region of Brazil. From September of 2019, ORPLANA will have national coverage, assuming a strategic commitment to serve all Brazilian sugarcane producers.

Website: <http://www.orplana.com.br>



## SOCICANA (ASSOCIAÇÃO DOS FORNECEDORES DE CANA DE GUARIBA)

Socicana (Association of Sugar Cane suppliers of Guariba) is an association formed by agricultural sug-

arcane growers in the Guariba region in the state of São Paulo - Brazil. The association was founded in 1951, it constitutes an organ representing the sugarcane producing class. Socicana is headquartered in Guariba-SP. Its activities are concentrated within a radius of 100 kilometers from the headquarters and represents 1,220 members, an approximate production of 6.1 million tons of sugarcane and an area of 72 thousand hectares. Socicana's vision is to be a reference in providing services to the associate, recognized as a leader in the articulation and management of initiatives that offer competitiveness to sugarcane growers. Socicana mission is to promote competitiveness and sustainable development of sugarcane growers, through services to the member, acting in defense of their rights and strengthening of associativism.

Website: <http://socicana.com.br/>



## GEOFLORESTAS SOLUÇÕES AMBIENTAIS

Geoflorestas – Soluções Ambientais Ltda, is a company which corporate purpose is the provision of technical consulting and services specialized in environmental and geoprocessing areas. The company's goal is to provide environmental services of excellence based on GIS technology. The company uses the latest tech for its services and we turn efforts to ensure the Sustainability and good value between our customers and the environment. In order to do so, we have a highly qualified technical team. The expertise of our staff enables customers to achieve the best environmental solutions and products tailored to their business. We work in accordance with ethical principles and meeting the current legislation, being always aware to the efficiency and quality of our services, seeking to achieve excellence and client's satisfaction. Geoflorestas, is a young and fast-growing company. Founded in 2010, became one of the selected companies in Latin America, to be Esri partner in 2011 (Esri Partner Network - EPN Silver). The partnership is based on developing and implementing solutions and services in environmental, conservation, agribusiness and GIS.

Website: <https://www.geoflorestas.com.br/en/>



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