República Oriental del Uruguay

Uruguay's Sovereign Sustainability-Linked Bond Framework (SSLB / BIICC)

For Sustainability-Linked Bonds Focused on Climate and Nature-Based Targets













ICMA Sustainability-Linked Bond Principles 2020



- 1. Selection of Key Performance Indicators (KPIs)
- 2. Calibration of Sustainability Performance Targets (SPTs)
- 3. Bond's Financial Characteristics
- 4. Reporting
- 5. Verification
 - 5.1. Ex-ante
 - 5.2. Ex-post

SUSTAINABILITY-LINKED BOND FRAMEWORK



1. Selection of Key Performance Indicators

ICMA Sustainability-Linked Bond Principles



1. Selection of Key Performance Indicators (KPIs)

- relevant, core and material to the issuer's overall business, and of high strategic significance to the issuer's current and/ or future operations
- measurable or quantifiable on a consistent methodological basis
- externally verifiable
- able to be benchmarked, i.e. as much as possible using an external reference or definitions to facilitate the assessment of the SPT's level of ambition

Selection of KPIs



The first NDC presents three types of climate change objectives:

- Economy-wide objectives for aggregate GHG emissions intensity regarding the evolution of the economy;
- Specific objectives for aggregate GHG emission intensity regarding agricultural production; and
- Specific objectives on conservation of natural capital: forestry and land use.



From the first and third category, the KPIs chosen were:

- KPI-1: Reduction of gross aggregate GHG emissions (in CO₂ equivalent) per real GDP unit with respect to reference year 1990 (in %)
- KPI-2: Maintenance of Native Forest area (in hectares) with respect to reference year 2012 (in %)

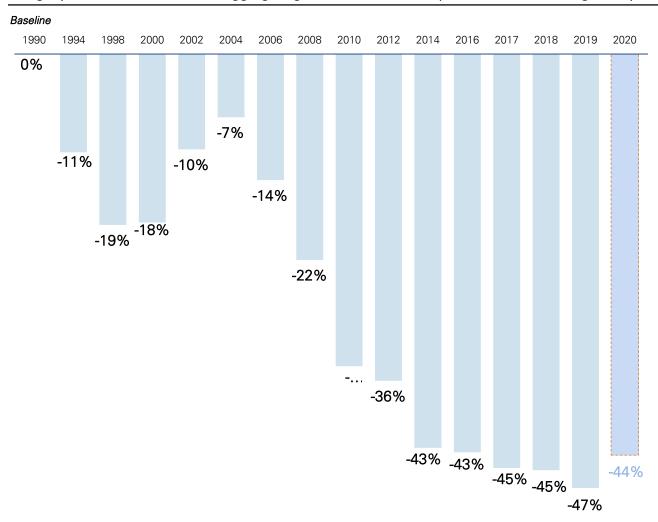


Integrates climate and nature targets aligned with environmental commitments under the Paris Agreement

KPI-1: Reduction of gross aggregate GHG emissions (in CO₂ equivalent) per real GDP unit with respect to reference year (in %)



Uruguay's historical evolution of aggregate gross GHG emissions per GDP unit, % change compared to 19901,2

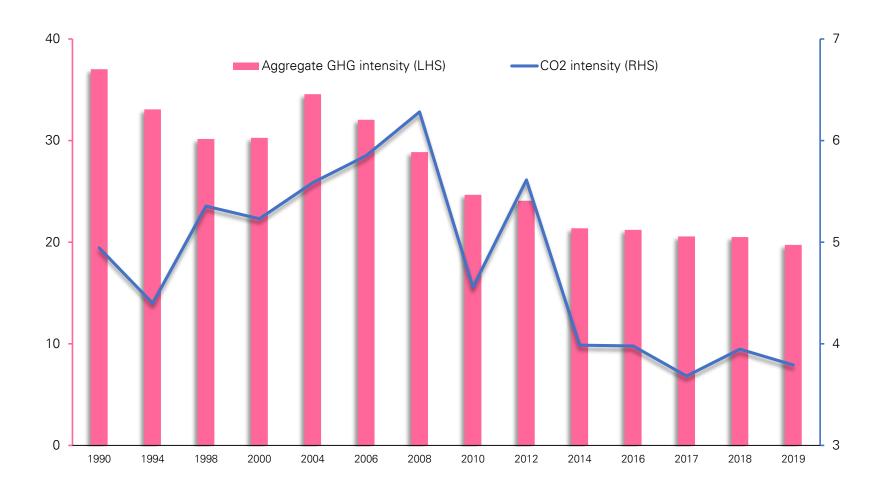


Uruguay has seen significant reduction in the intensity of emissions throughout its economy



Evolution of Uruguay's gross GHG emissions as a share of real GDP; Period 1990-2019¹

Over the last decade and a half, the carbon intensity of the economy has been cut almost in half, even decreasing absolute emissions in some key activities, such as electricity generation



^{1&}quot;Aggregate GHG" refers to the three main GHGs and all sectors contributing emissions of each GHG, except for Land Use and Land Use Change and Forestry (LULUCF) in gross emissions. Gross Emissions refers to the fact that it does not account for CO2 removal by carbon sinks. Expressed in Gg (1000 metric tons) of CO2eq, metric GWP100 AR5. Real GDP measured in billions of pesos in 2016 constant prices.

Years with official NGHGI publication.

Significant improvement in the climate efficiency of livestock and cattle production

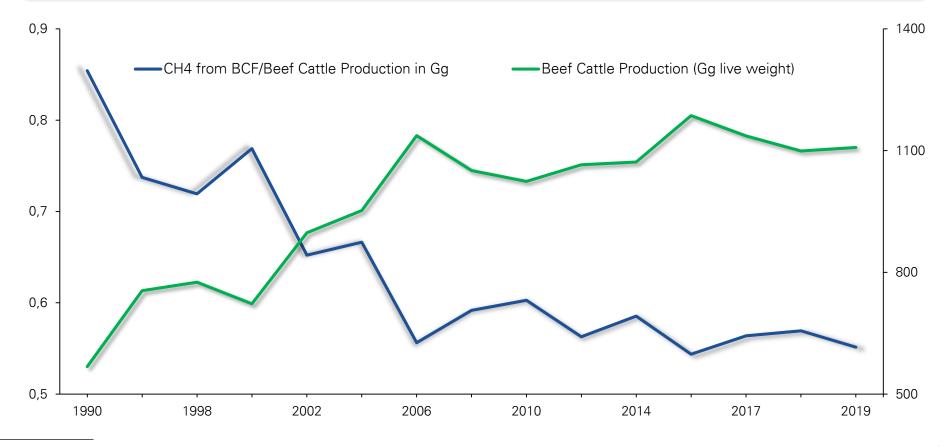


Evolution of beef cattle production and Methane emissions (CH₄) per unit of cattle beef produced; Period 1990-2019 ¹

Over the last 30 years, Uruguay has significantly reduced the intensity of methane emissions in beef production.

- Since 2010, the implementation of the climate-smart agricultural policies has sought the adoption of technologies for forage management in the phases of:
- ✓ Cattle breeding and raising (based on natural grasslands feeding)
- ✓ Cattle management measures, which improve the efficiency of beef production and prevent carbon losses from soils.

As a result, the increase in productivity has been achieved with virtual stabilization of total emissions in this sector.

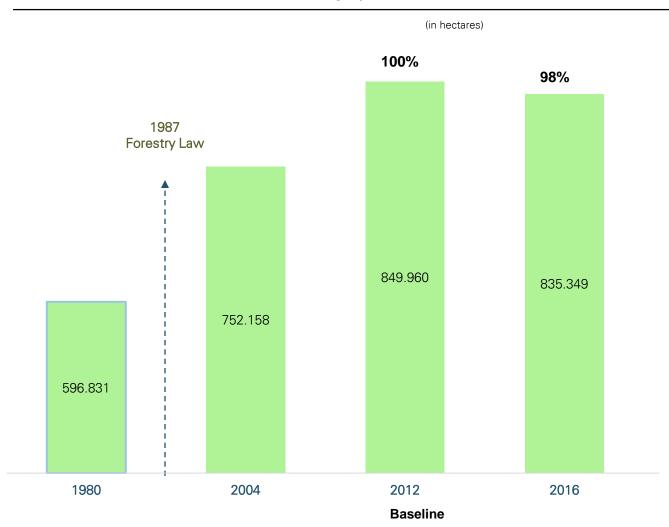


¹CH4 emissions intensity from beef production (LHS) is calculated as CH4 emissions (Gg) from beef production as a share of beef production in Gg live weight. Years with official NGHGI publication.

KPI-2: Maintenance of Native Forest area (in hectares) with respect to reference year 2012 (in %)



Uruguay's historical evolution of Native Forest Area



Afforestation trend diverges strongly from most regional countries. Uruguay's current situation must therefore be viewed in this context, as similar pressures that have led to deforestation regionally exist within Uruguay, and ongoing and additional actions must be taken to preserve or further grow the country's forests.



2. Calibration of Sustainability Performance Targets (SPTs)

ICMA Sustainability-Linked Bond Principles



1. Selection of Key Performance Indicators (KPIs)

2. Calibration of Sustainability Performance Targets (SPTs)

- represent a material improvement in the respective KPIs and be beyond a "Business as Usual" trajectory
- where possible be compared to a benchmark or an external reference
- be consistent with the issuers' overall strategic sustainability / ESG strategy
- be determined on a predefined timeline, set before (or concurrently with) the issuance of the bond.

SPTs for KPI-1



SPT 1.1 NDC commitment

Achieve at least a 50% reduction of gross aggregate GHG emissions intensity by 2025, with respect to 1990



SPT 1.2 Outperform NDC commitment

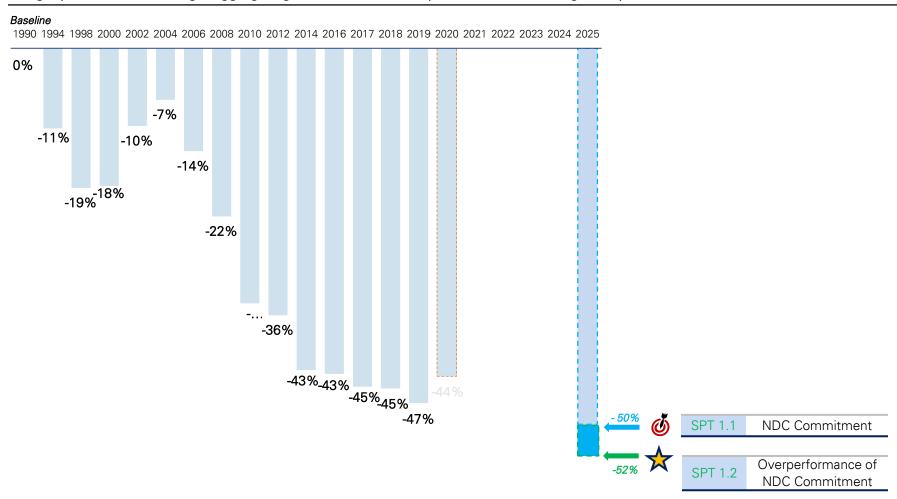
Achieve more than a 52% reduction of gross aggregate GHG emissions intensity by 2025, with respect to 1990



A material effort is required to achieve SPT 1.1 and SPT 1.2



Uruguay's historical and target aggregate gross GHG emissions per GDP unit, % change compared to 19901,2



SPT 1.1 for KPI-1



Common metrics assessed by the IPCC	NGHGI sectors	Non-binding interpretation of 2025 mitigation objection		
the ir cc		Unconditional	Conditional on additional specific means of implementation	
AR2 GWP ₁₀₀	Energy, including Transport; Agriculture, Including Cattle Raising, Waste; and Industrial Processes	49% reduction in CO ₂ equivalent GHG emissions intensity regarding GDP	52% reduction in CO₂ equivalent GHG emissions intensity regarding GDP	
AR5 GTP ₁₀₀	Energy, including Transport; Agriculture, including Cattle Raising; Waste; and Industrial Processes	43% reduction in CO₂ equivalent GHG emissions intensity regarding GDP	47% reduction in CO₂ equivalent GHG emissions intensity regarding GDP	

(Land Use, Land-Use Change and Forestry Sector are not considered)

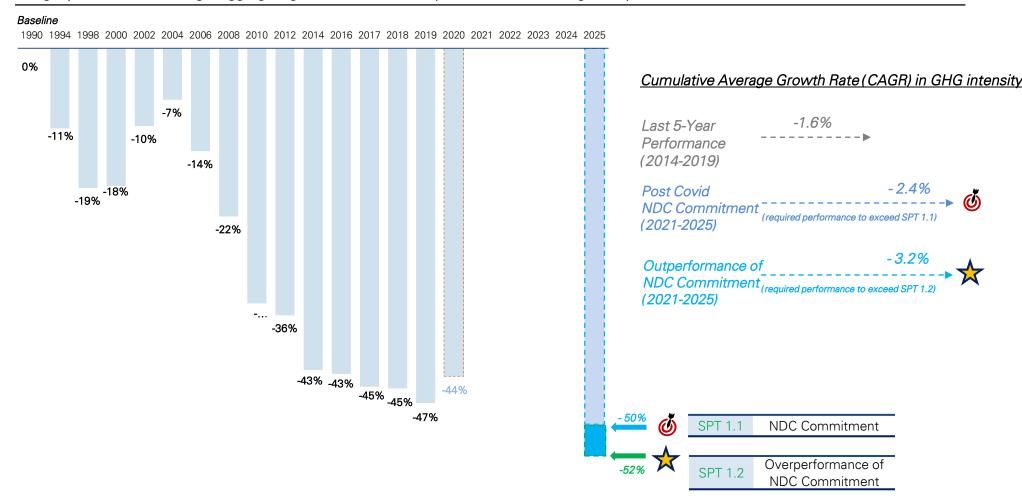
The target value presented in Uruguay's first NDC for this indicator was a reduction of **49 percent** compared to 1990. The value was set using the GWP100 AR2 metric, which was the one applied and accepted by the Intergovernmental Panel on Climate Change back in 2017.

Since then, the international standard has evolved, and the target value presented for the purpose of this SPT (a more stringent reduction of 50 percent) corresponds to the mathematical equivalent in AR5 of the one originally presented in AR2 terms.

Achieving the SPTs by 2025 will require accelerating the rate of reduction compared to recent years



Uruguay's historical and target aggregate gross GHG emissions per GDP unit, % change compared to 19901,2



2 percentage points outperformance of Uruguay's NDC Commitment equates to a reduction of 1,475.01 Gg in $\rm CO_2$ eq (equivalent to 52.68 Gg of $\rm CH_4$ or 5.57 Gg of $\rm N_2O$)

SPTs for KPI-2



SPT 2.1

NDC commitment

Maintenance of 100% of Native Forest area with respect to 2012, by 2025



SPT 2.2

Outperform NDC commitment

Achieve a 103% of Native Forest area with respect to 2012, by 2025



SPT 2.1 for KPI-2

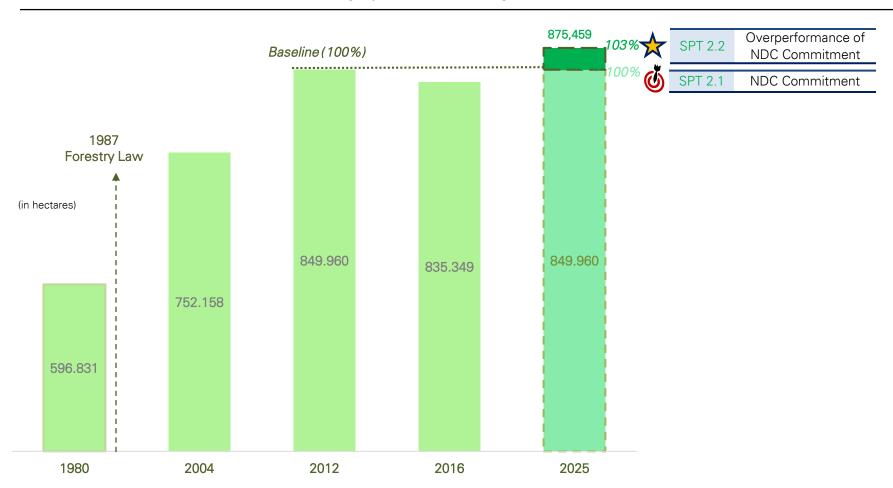


	Carbon pools/ Land use categories	2025 Mitigation Objectives		
GHG		Conservation of Unconditional	conditional on additional specific means of implementation	
CO₂	Living Biomass in Forest Lands	Maintenance of 100% of the native forest area of year 2012 (849.960 ha)	5% increase in the native forest area of year 2012 (892.458 ha)	
		At least maintenance of 100% of the amount of forest plantations effective area under management of year 2015 (763.070 ha)		
		Maintenance of 100% of the shade and shelter forest plantations area of year 2012 (77.790 ha)	25% increase in the shade and shelter forest plantations area of year 2012, including silvopastoral systems (97.338 ha)	
	Soil Organic Carbon (SOC) in Grasslands, Peatlands and Croplands	Avoid CO ₂ emissions from SOC in 10% of the grasslands area (1.000.000 ha)	Avoid CO ₂ emissions from SOC in 30% of the grasslands area (3.000.000 ha)	
		Avoid CO ₂ emissions from SOC in 50% of the peatlands area of year 2016 (4.183 ha)	Avoid CO ₂ emissions from SOC in 100% of the peatlands area of year 2016 (8.366 ha)	
		Avoid CO ₂ emissions from SOC in 75% of the cropland area under Plans of Soil Use and Management of year 2016 (1.147.000 ha), as well as CO ₂ sequestration in the remaining 25% of the area (383.000 ha)		

Uruguay is a country with almost no net deforestation of its native forest, a rare attribute among developing countries



Uruguay's historical and target Native Forest Area



Afforestation trend diverges strongly from most regional countries. Uruguay's current situation must therefore be viewed in this context, as similar pressures that have led to deforestation regionally exist within Uruguay, and ongoing and additional actions must be taken to preserve or further grow the country's forests.



3. Bond Characteristics

ICMA Sustainability-Linked Bond Principles



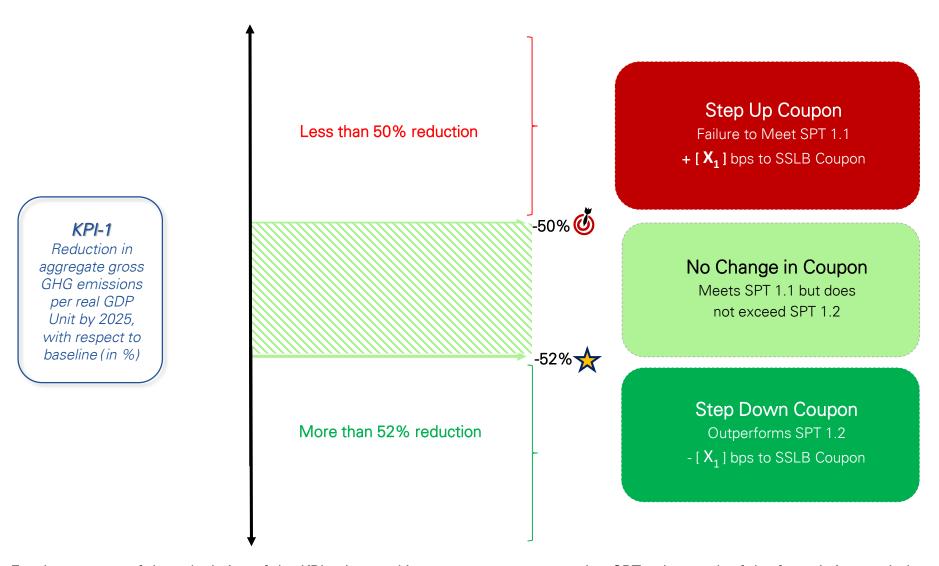
- 1. Selection of Key Performance Indicators (KPIs)
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3. Bond's Financial Characteristics

- Financial and/or structural characteristics may vary depending on whether or not the issuer meets certain predefined ESG or sustainability goals.

Contingent Payoff Structure that is Incentive Compatible: Step-Up / Neutral / Step-Down Mechanism

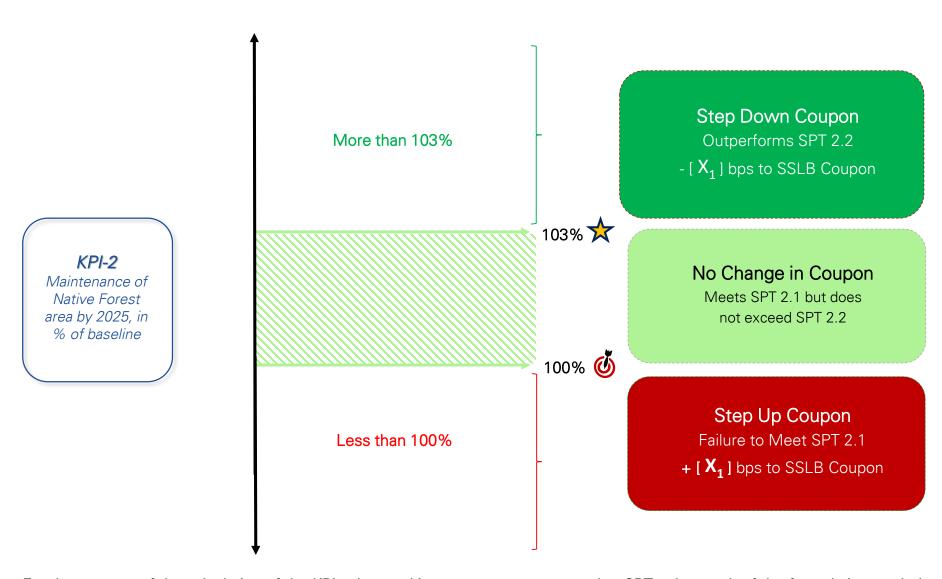




For the purpose of the calculation of the KPI value, and its assessment compared to SPTs, the result of the formula is rounded up or down to the nearest integer, consistent with the way the numerical goals were set under Uruguay's 2017 NDC

Contingent Payoff Structure that is Incentive Compatible: Step-Up / Neutral / Step-Down Mechanism





For the purpose of the calculation of the KPI value, and its assessment compared to SPTs, the result of the formula is rounded up or down to the nearest integer, consistent with the way the numerical goals were set under Uruguay's 2017 NDC

Summary of possible coupon changing outcomes for new SSLB



The financial characteristics of the sustainability-linked instruments issued under this Framework will be individually linked to each of the KPIs. In other words, the effects of satisfying, or failing to satisfy, their respective SPT are independent of each other.

For each KPI:

- A one-time **coupon step-up** of *X1 bps* will occur if Uruguay fails to achieve its NDC commitment (SPTs 1.1 for KPI-1, 2.1 for KPI-2), by 2025.
- A one-time coupon step-down of X1 bps will occur if Uruguay over performs on its NDC commitment (SPTs 1.2 for KPI-1, 2.2 for KPI-2) by 2025.
- No change in coupon if Uruguay meets its NDC commitment (SPTs 1.1 for KPI-1, 2.1 for KPI-2) by 2025 but falls short of exceeding the respective outperformance target (SPTs 1.2 for KPI-1, 2.2 for KPI-2).

Symmetry:

The magnitudes (X1 bps) of the Coupon Step-Up and Coupon Step-Down will be the same, and will apply equally to each KPI.

Summary of possible coupon changing outcomes for new SSLB



		KPI-2 Maintenance of Native Forest area by 2025 with respect to baseline		
		Less than 100%	Between 100% and 103%	More than 103%
KPI-1	Less Than 50%	+(2*[X ₁]) bps	+[X ₁] bps	No change
Reduction in aggregate gross GHG emissions per real GDP Unit by 2025 with respect to baseline	Between 50% to 52%	+[X ₁] bps	No change	-[X ₁] bps
	More than 52%	No change	-[X ₁] bps	-(2*[X ₁]) bps



4. Reporting

ICMA Sustainability-Linked Bond Principles



- 1. Selection of Key Performance Indicators (KPIs)
- 2. Calibration of Sustainability Performance Targets (SPTs)
- 3. Bond's Financial Characteristics

4. Reporting

Issuer should publish:

- Annual report verifying the results of the KPIs related to the SPTs, describing performance and its impact.
- Information that allows investors to monitor the level of ambition of the SPTs

Reporting will go over and beyond UNFCCC requirements and Open-Source Data



The methodologies used to calculate the performance of the KPIs will be the same as those employed by Uruguay to report Nationally Determined Contributions (NDCs) progress data to the United Nations.

KPI-1

The reporting of KPI-1 will move from a biennial to an annual frequency, with one year lag.

✓ Uruguay will be the only non-Annex I country to start reporting GHG emissions on annual frequency and with a shorter time lag, on par with industrialized countries.

KPI-2

Uruguay will carry out a satelliteimaging mapping of the native forest area every four years, with one-year lag.

✓ For the years in which the cartography is not carried out (i.e., when KPI-2 is not calculated), Uruguay will provide intermediate updates on any actions, policies, regulations, and/or changes in the normative framework for conserving native forest.

Institutional Arrangements for Reporting

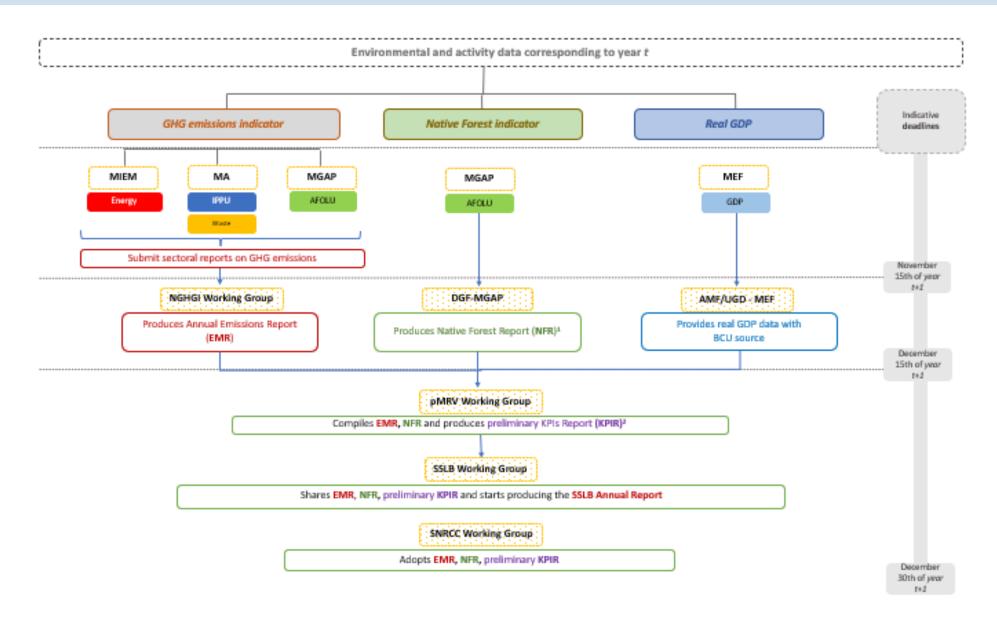


Uruguay is making great institutional and technical efforts to articulate and match the requirements established under the UNFCCC with those of the ICMA principles. This implies enhanced ambition and giving a higher priority to climate change issues, measures and policies.

- A new inter-ministerial task force was created, named **Grupo de Trabajo para Bono Indexado a Indicadores de Cambio Climatico** (BIICC, for its Spanish acronym), or Working Group for Bond Linked to Climate Change Indicators.
- The coordinated action of all involved ministries and national agencies will support delivering on the bond's targets and provide investors with the required transparency, confirming the country's commitments to the rule of law as well as the strength of its public institutions.
- Work-streams with key milestones, interim reports and responsible teams for the development and annual publication of the SSLB Report

Institutional Arrangements for Reporting







5. Verification

ICMA Sustainability-Linked Bond Principles



- 1. Selection of Key Performance Indicators (KPIs)
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 - 5.1. Ex-ante
 - **5.2. Ex-post:** Obtain an annual independent external verification of the level of performance against each SPT for each KPI, which must be publicly available

5.1 Ex-ante verification: Second Party Opinion



- Uruguay has obtained a Second Party Opinion (SPO) by Sustainalytics who has provided an opinion on the sustainability benefits of Uruguay's SSLB Framework as well as its alignment with the five core components of ICMA's 2020 Sustainability-Linked Bond Principles.
- The SPO is accessible on the SSLB/MEF and on Sustainalytics' website



Summary of Sustainalytics' Second Party Opinion



<u>KPI 1</u>	<u>KPI 2</u>
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Strength of KPIs	Strong	Strong	
KPI Characteristics	✓ KPI is recognized by the World Bank Group for Sovereign Sustainability Linked Bonds and it is also used by the International Energy Agency	✓ Viewed to be a direct measure of Uruguay's performance on the material issue of native forest area preservation	
KPI Overall Assessment	✓ Clear and consistent externally benchmarkable methodology	✓ Direct relationship to performance	
	✓ High relevance to a material issue	✓ High relevance to a material environmental issue	

SPT 1.1 SPT 1.2 SPT 2.1 SPT 2.2

Ambitiousness of SPTs	Ambitious	Ambitious	Ambitious	Very Ambitious	
Ambition Assessment	✓ Represent trajectories that exceed Uruguay's historical performance		✓ Ambitious versus Historical Performance and versus Peer Performance		
Reporting		t with the requirements of the Jruguay's commitment to go ards in data reporting frequency &	✓ KPI 2 reporting is in alignment with the periodicity of the elaboration of the official cartography of native forests in Uruguay and therefore in alignment with the requirements of the SLBP		
Verification	✓ Shorten data reporting 'lags' and the external verification period for GHG emissions to approximately 17 months will enhance transparency, data availability and accountability to monitor the progress in achieving SPTs				

✓ The issuance of SSLBs will provide financing for projects that

Impact of SPTs

are expected to help to reduce national GHG emissions,

achieving Uruguay's emissions reduction targets and further

facilitate the transition to a decarbonized economy

✓ Sustainalytics is of the opinion that the Framework is

expected to contribute to the country's preservation,

regeneration and reforestation efforts for its native forests

5.2 Ex-post verification: External and Independent revision by United Nations Development Program, on an accelerated timetable



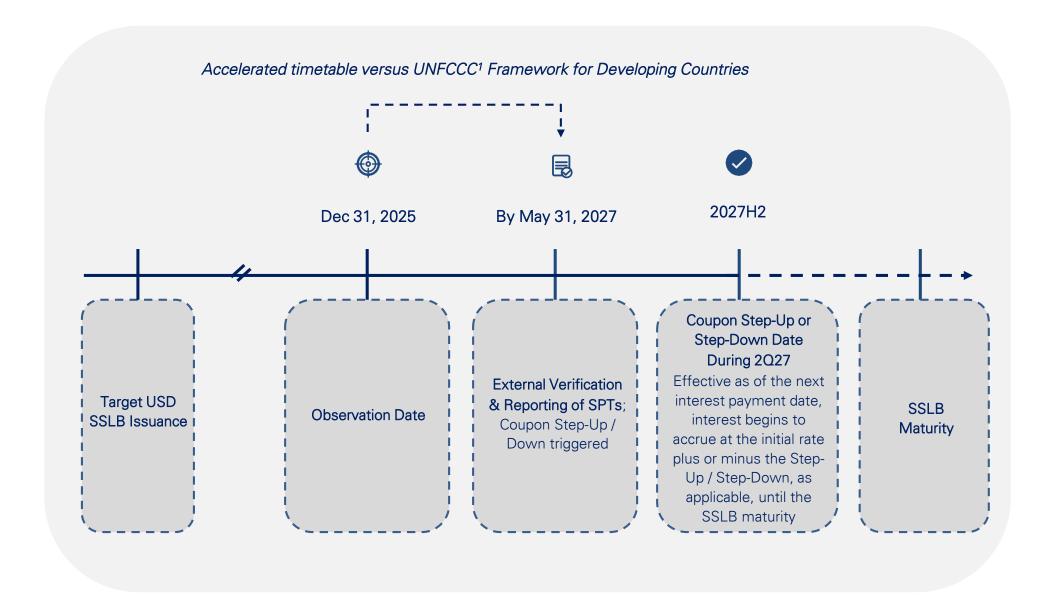
UNDP will provide an independent external verification of both KPIs

✓ Uruguay and UNDP will innovate together, setting up an accelerated timetable of an external review of estimated GHG emissions and other relevant stock/flow variables tied to the KPIs

Accurate reporting, timely availability, transparent disclosure, and credible external verification of the KPIs are critical components of the Framework and the efforts in achieving these environmental goals.

Summary of Key Transaction Dates and Reporting and Verification Commitments





Summary of Key Transaction Dates and Reporting and Verification Commitments



Each year until the SSLB's maturity, by the 31st of May at the latest, Uruguay will publish and keep readily available and accessible on the SSLB/MEF website a Sustainability- Linked Bond Report, which will include:

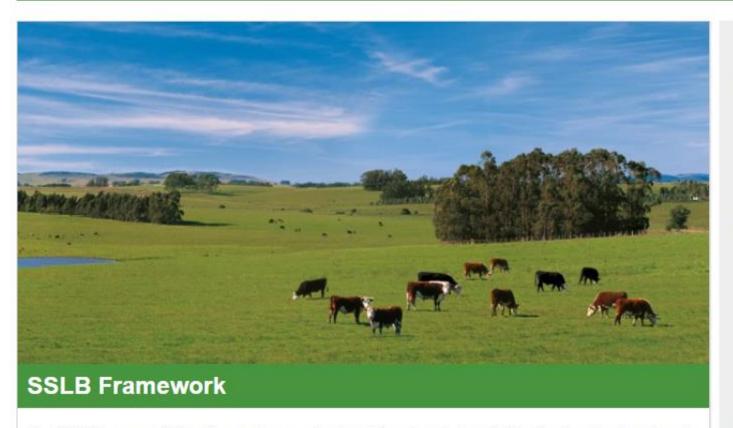
- 1. The KPIs level at the end of the previous year (when applicable), with updated information on the performance of the selected KPI, including baselines;
- 2. Any additional information that allows investors to monitor progress towards the SPTs;
- 3. An External Verification Report¹ by UNDP of the consistency with international methodologies and standards for calculating the KPIs.

³⁶

Uruguay's Sustainability-Linked Bonds/MEF website



Uruguay's Sovereign Sustainability-Linked Bonds (SSLB)



The SSLB Framework links Uruguay's sovereign bond financing strategy to its climate and nature targets as established under the Paris Agreement. The Framework describes Uruguay's sustainable strategic priorities and sets out goals with respect to two Key Performance Indicators (KPIs), tied to the evolution of the intensity of Greenhouse Gas (GHG) emissions and the area of native forests in the country. The

- - SSLB Framework
- A L
 - Second Party Opinion
- 4
- KPI Definitions and SPT Values
- Reporting Methodology and SSLB Annual Report
- - **External Verification**
- Inter-Ministerial SSLB Governance
- Native Forest Website

Environmental Links of Interest



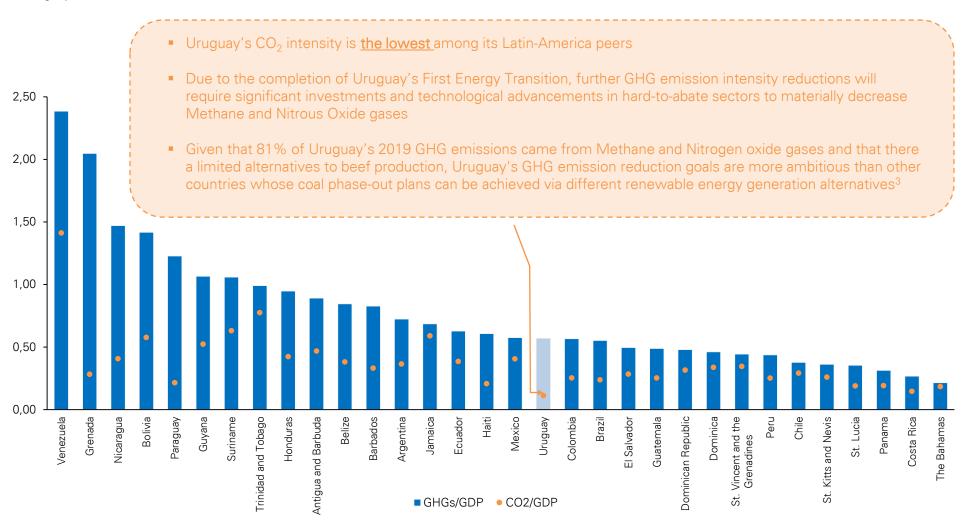
Annex I: Benchmarking and Policies

Uruguay's low CO2 intensities demonstrate the country's ongoing efforts to a more sustainable country and economy...



... and exemplifies the high degree of ambition required for each marginal intensity reduction versus its regional peers

Uruguay's relative GHG reduction as a share of GDP relative to other Latin-American countries in 2018^{1,2}



¹GHG in ton of CO₂ eq (excluding land use)

² GDP in current dollars

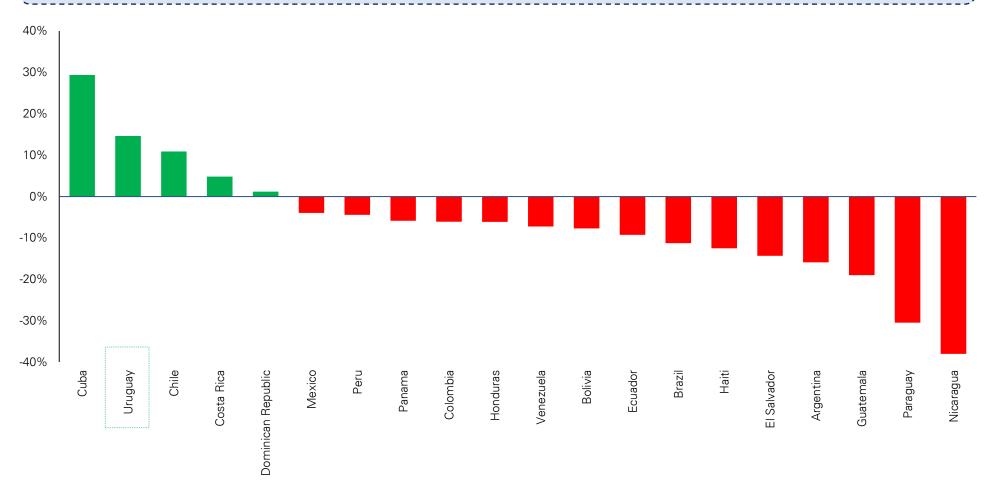
³ GHG expressed in Gg of CO₂ eq (Mt), Metric GWP100 AR5. Considers the three global GHGs and the main sectors contributing emissions of each GHG as set out in the 2017 NDC. IN 2019 CH₄ accounted for 62% of gross GHG emissions, followed by 19% from N₂O and then the remaining 19% from CO₂. Source: International Monetary Fund. World Economic Outlook Database. October 2021

During the 2000-2020 period, Uruguay achieved approximately a 15% increase in its native forest area



Uruguay stands in the top 2 out of 20 Latin-American countries in terms of cumulative increase in Naturally Regenerating Forest Area during 2000-2020

Maintaining 100% of Uruguay's native forests is an outstanding effort, as other countries in the region have had cumulative decreases in Native Forest Area, ranging from -5% to -30%, and the average naturally regenerating forest area has decreased an average of 6.4% during 2000 - 2020



Factors that support the achievement of SPT 1.1 and SPT 1.2



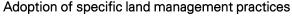


Sustainable Livestock Farming and Production

A series of policies and activities have been prioritized to meet Uruguay's mitigation objectives, such as:

Improved practices and technologies like:

- Better pasture management
- Strategic supplementary feeding
- Substitution of high fiber forages
- Genetic improvement of animals that can improve livestock productivity and reduce emission intensity



Identification of potential new avenues to reduce GHG emissions in the agricultural sector Tax incentives for imports of organic fertilizers and organo-mineral fertilizers Reduce methane intensity by improving:

- Diet in natural grasslands by enhancing grazing management
- Efficiency of the her, such as higher pregnancy and weaning, younger slaughter, etc.
- Efficiency of conversion (genetics) like breeding for animals with higher efficiency
- Using feed supplements to reduce CH4 emissions



Decarbonization of the transportation sector

- In prioritizing the transportation sector, Uruguay is supporting the development of energy efficiency and renewable energy projects.
- Not only has an inter-institutional group on energy efficiency in transport been established but also a working group on sustainable urban mobility
- Additionally, a second energy transition is currently underway. This transition will enable the country to further mitigate and reduce CO2 emissions.



Improving use of surplus energy

Uruguay continues to test new energy sources and technologies, such as:

- The execution of strategies to improve the use of surplus energy¹ including storage
- "Power-to-X" technologies, and
- Demand management solutions enabled by smart grid technologies that maximize the use of energy produced from renewable sources

¹Mainly derived from non-dispatchable wind electricity produced outside peak consumption hours

Factors that support the achievement of SPT 2.1 and SPT 2.2





Forestry policy support

Safeguarding ecosystems through:

- Regulation and strong monitoring and enforcement
- Commitment to support the forestry policy with the needed resources
- The development of new methodologies for georeferenced mapping that will enable monitoring at higher frequencies



Incentivize landowners

New norms to foster the incentives of landowners to conserve native forests such as:

■ The most recent Budget Law submitted to Congress in June 2022 which provides further tax incentives and budgetary resources to promote reforestation



Maintain steady progress

- Reforestation efforts and incentives to expand the protection of primary growth woodlands in coordination with NGOs and civil society
- Measures to support climate adaptation in Uruguay's forest and land use sectors, for example to address the risk of wildfire in the face of climate change-driven meteorological anomalies



Enhance native forest carbon stock and promote native forest management on a landscape scale

Uruguay will support these initiatives by strengthening and adapting the :

- Forest reference level (FRL)
- The measurement, reporting, and verification system (MRV)
- Safeguards information system (SIS)

Other measures include:

- Implementing actions to increase the area of native forest, in line with the NDC
- Including native forest management in urban contexts in line with the National REDD+ Strategy and in synergy with other national and local plans and programs



Promote carbon sequestration in agricultural and land-use

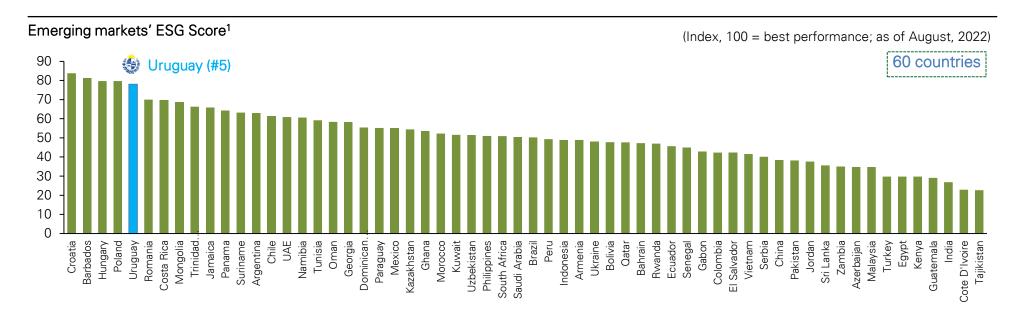
To support the de-carbonization of CO₂ emitting sectors, this strategy focuses mainly on maintaining the coverage of native forests, shelter and shade forests for livestock, and forest plantations for sawmill timber and other industrial uses



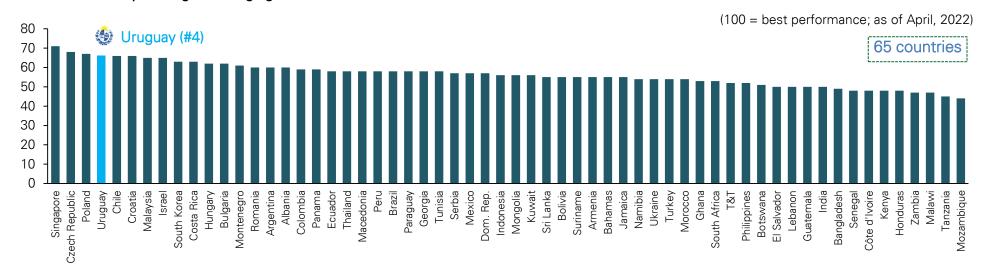
Annex II: Uruguay's Environmental Performance

Uruguay is among the top global performers on ESG fundamentals





Sustainable country ranking of Emerging Markets countries ²



⁽¹⁾ Source: J.P. Morgan Chase & Co. using data from RepRisk, Sustainalytics and Climate Bonds Initiative

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Uruguay placed first in the Capacity to Combat Corruption Index for the second year in a row among Latin America & Carribbean countries





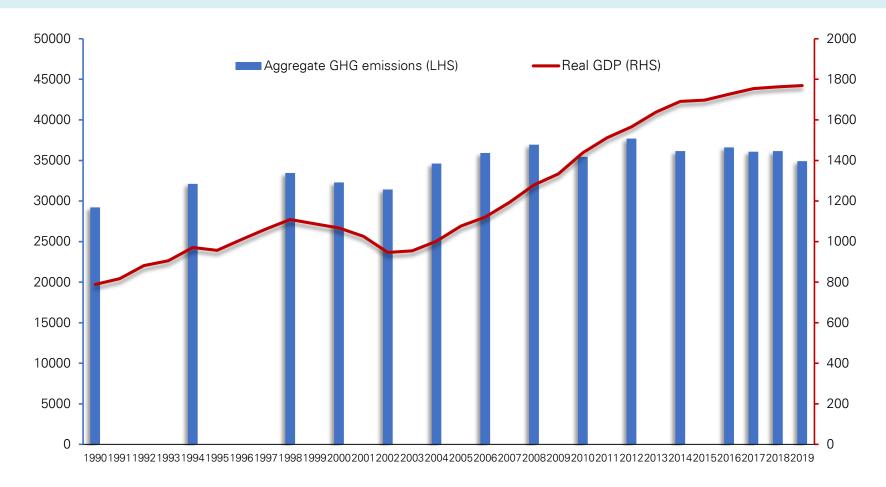
The Capacity to Combat
Corruption Index
evaluates and ranks
countries based on how
effectively they can
combat corruption, based
on three pillars: legal
capacity, democracy and
political institutions and
civil society and media.

Economic growth has decoupled from carbon emissions



Uruguay's historical aggregate gross GHG emissions evolution compared to real GDP evolution ¹

Going forward, the Republic is focused on inclusive economic growth while mitigating the impacts of climate change and remaining a steward of its natural resources and protecting biodiversity.

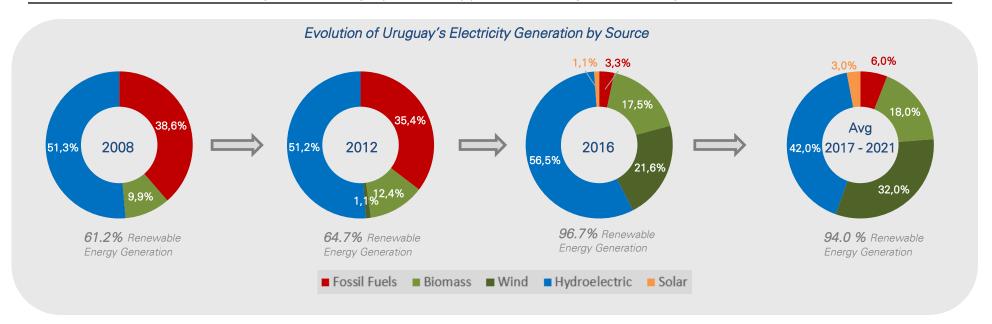


^{1 &}quot;Aggregate GHG" refers to the three main GHGs and all sectors contributing emissions of each GHG, except for Land Use and Land Use Change and Forestry (LULUCF) in gross emissions. Gross Emissions refers to the fact that it does not account for CO2 removal by carbon sinks. Expressed in Gg (1000 metric tons) of CO2eq, metric GWP100 AR5. Real GDP measured in billions of pesos in 2016 constant prices. Years with official NGHGI publication.

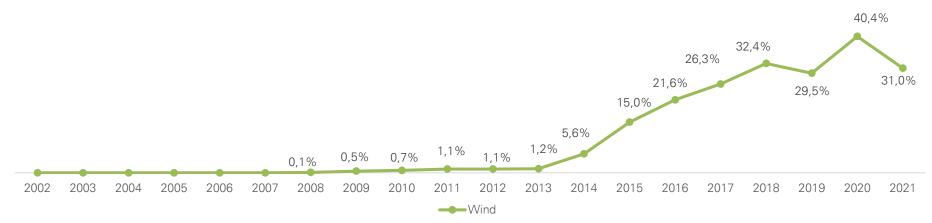
Uruguay has undertaken a remarkable energy transition, propelling the country as a world leader in renewable electricity generation



Between 2017 and 2021, on average 94% of Uruguay's electricity production was generated using diverse renewable sources



Wind-powered generation of electricity (% of total)

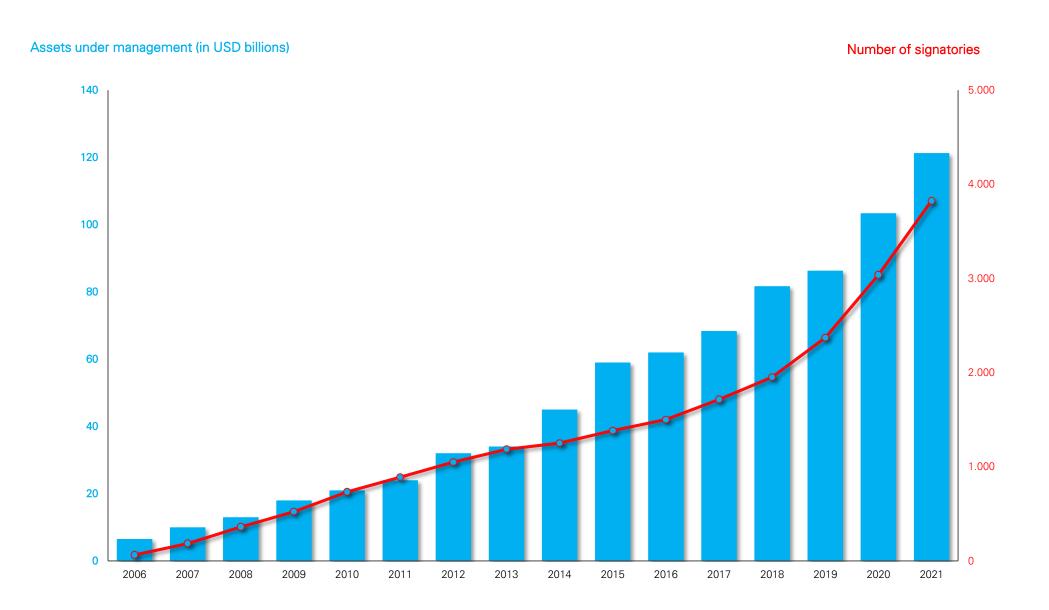


Source: National Energetic Balance, 2021



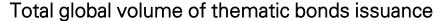
Annex III: Thematic Bond Issuance

Assets of international investment funds that follow the Principle of Responsible Investment (PRI) have been steadily increasing

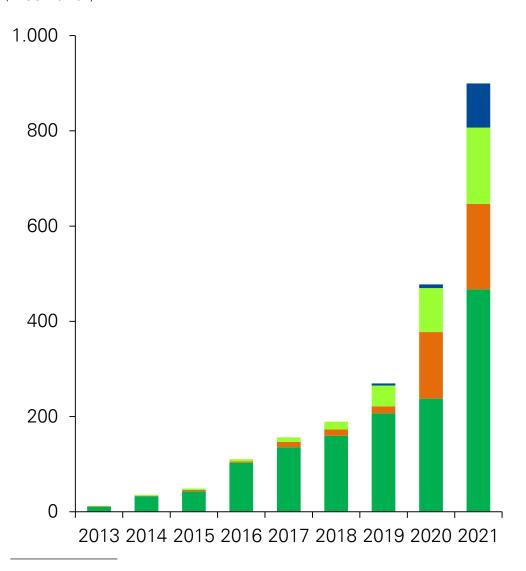


Strong increase in thematic bonds issuances, with recent uptick of SLB instruments





(In USD billion)



- 1. Specific use of funds (Use of Proceeds model)
- Green Bonds
- Social Bonds
- Sustainable Bonds

- 2. General purposes use of funds (Sustainability-Linked Bonds)
- Sustainability-linked bonds