Ministerio de Economía y Finanzas | Ministerio de Ambiente | Ministerio de Ganadería Agricultura y Pesca | THE WORLD BANK IBRD · IDA

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URUGUAY

Green and Resilient Growth Development Policy Loan

Interest Rate Step-Down Mechanism to Incentivize Provision of Global Public Goods

On November 16th, 2023, the Board of the World Bank approved a new Development Policy Loan (DPL) for Uruguay for USD 350 million. The loan includes the groundbreaking feature of a step-down in interest payments based on verifiable performance against ambitious climate targets. This note summarizes the instrument's environmental goal-driven design, the innovative financial mechanism, and the reporting and verification framework underpinning it.

I. Objective

1. The objective of the financial mechanism is to reinforce positive incentives for the Government of Uruguay (GoU) to achieve ambitious environmental goals during the IBRD loan repayment period. The loan allows for a reduction in the interest rate paid if Uruguay overperforms beyond its Nationally Determined Contributions (NDC) targets for reducing the intensity of methane gas emissions derived from livestock production, as set by the country under the Paris Agreement.

2. Building on the model of the US$1.5 billion sovereign sustainability linked bond (SSLB) pioneered by Uruguay in October 2022, the proposed mechanism responds to the commitment set out in the World Bank Group's (WBG's) Evolution Roadmap[1] to develop approaches for providing concessionality to incentivize countries to address global public goods (GPGs), through the introduction of long-term performance-based incentive mechanisms, including interest buydowns. The financial mechanism introduces two innovative features to WBG financing modalities by: a) incorporating an interest stepdown provision in the standard WB financing agreement; and b) extending WB capacity to incentivize GPG outcomes beyond project closing. Through its leadership on the IMF/WB Development Committee, the Government of Uruguay has made substantial efforts to advance innovative instruments to encourage the provision of GPGs through positive financial incentives and has been a strong supporter of the objectives of the IBRD Fund for Innovative Global Public Goods Solutions (the GPG Fund).

3. This sovereign sustainability-linked loan (SSLL) from the WB introduces several further innovative features in line with the Evolution Roadmap that: (a) provides financial incentives for overperformance of increasingly ambitious climate targets, based on commitments set by Uruguay in its NDCs under the Paris Agreement; (b) reinforce partnerships between multilateral institutions in supporting the achievement of national environmental goals through robust reporting and credible external verification of climate-related indicators; and (c) focus on providing positive incentives to countries for their provision of GPGs through a step down-only approach.

[1] Evolving the World Bank Group's Mission, Operations, and Resources: A Roadmap. WBG, December 2022

4. This SSLL is the product of a "whole-of-government" approach, jointly undertaken by the Ministry of Economy and Finance, the Ministry of Environment and the Ministry of Agriculture, Livestock and Fisheries of Uruguay. Close collaboration with the WB's technical teams was essential in the development of this loan instrument.

II. Approach

5. The SSLL embeds a Key Performance Indicator (KPI) related to the reduction in the intensity of methane emissions as a share of cattle beef production in Uruguay. Given that livestock production is an integral part of the economic fabric of the country, the selected KPI is core, relevant aligned with the country's sustainability strategies. The KPI targets represent ambitious and demanding commitments, particularly in light of the headwinds from the recent drought in Uruguay (the most severe in one hundred years). It also provides additionality to the SSLB's KPIs, which focus on the reduction of aggregate greenhouse gas emissions intensity and conservation of native forests at a whole-of-economy level.

6. The proposed financial mechanism of the SSLL has the following distinct features, compared with the SSLB:

- it will not include an interest rate increase if KPI targets are not met (as in the case of the SSLB); instead, interest payments would remain at (or revert to) standard IBRD terms.
- the amount of the interest rate reduction was determined such that achievement of the respective KPI targets in each of the ten years of the performance period will lead to a maximum US$12.5 million reduction in the total interest paid over the maturity of the loan.[2] As a result, the interest rate stepdown (of up to 100 bps per year, as described below) exceeds the contingent coupon stepdown established for the SSLB (15bps per year, for each KPI).
- determination of the interest rate stepdown will be made annually during the performance period (rather than only once at the mid-point maturity of the SSLB), to further incentivize continuous achievement of the KPI targets throughout the maturity of the loan.

III. Proposed Indicator and Targets

7. The use of the indicator of methane intensity of beef cattle production: (i) highlights the breadth of Uruguay's commitments to climate action by employing a macroeconomically significant KPI in addition to the ones used for the SSLB; and (ii) strengthens the case for use of concessional resources from the World Bank's (WB's) GPG Fund, by providing additionality beyond the expected impact of the SSLB. Taken together, the KPIs embedded in both the market-based and multilateral sustainable finance instruments demonstrate Uruguay's determination to pursue a sustainable development path that combines higher growth and productivity in the beef sector with its commitment to zero deforestation. Uruguay's Livestock and Climate pilot project (Ganadería y Clima)[3] has worked with farmers to generate innovative proof-of-

[2] It should be noted that the WB and GoU have agreed to consider the possibility of applying for additional financing for the buydown as an incentive for early achievement of the KPI targets, if new financing becomes available from one or more countries from Annex I of the United Nations Framework Convention on Climate Change.

[3] *Ganadería y Clima* is a pilot project with funding of US$1.2 million from a partnership between the UNEP-convened Climate and Clean Air Coalition (CCAC), GEF, FAO, and Ministry of Livestock, Agriculture and Fisheries.

concept solutions based on science for improved livestock management practices that reduce the methane emission intensity of meat production and increase productivity and profitability, supporting achievement of the ambitious targets of the proposed interest buy-down.[4] Potential interest savings on the SSLL will be channelled to climate-smart agricultural projects in Uruguay to advance sustainable livestock production practices, among other climate action measures.

8. The KPI regarding the reduction of methane intensity is established as a measure for action on mitigation of greenhouse gas emissions in Uruguay's NDC1 (with targets set for 2025) and NDC2 (with targets set for 2030), with increasing levels of ambition. The targets for this KPI will reflect Uruguay's NDC commitments as follows:

- KPI**:** reduction of the intensity of emissions of methane from bovine cattle per unit of live weight beef, with respect to the reference value for the observation year 1990.[5]
- Achievement of targets during the 2028-2032 performance period. The unconditional target on methane intensity reduction set in the NDC1 is 32 percent, to be met by 2025. The interest buydown would apply if the more ambitious target of 33 percent reduction in the intensity of methane emissions with respect to the reference value is met or exceeded. Given the lags associated with the calculation, estimation and verification of the KPI, years 1-5 of the performance period will span from 2028 to 2032 (referring to observation years 2025-2029).
- Achievement of targets during the 2033-2037 performance period. The unconditional target for methane intensity reduction set in Uruguay's NDC2 is 35 percent, to be met by 2030. A higher level of interest rate buydown will apply in this second half of the performance period if the reduction of methane intensity is 36 percent or more, reflecting overperformance of the higher level of ambition established under NDC2 (which is significantly more demanding than NDC1). In turn, the smaller amount of interest buydown corresponding to the first half of the performance period will apply in these latter years if the reduction is below 36 percent, but at or above 33 percent. Given the lags associated with the calculation, estimation and verification of this indicator, years 6-10 of the performance period will span from 2033 to 2037 (referring to observation years 2030-2034).
- Buffer year 2038. If a target is missed in an earlier year, the foregone nominal dollar amount of the interest payment reduction may be applied if the same target is achieved in this buffer year, subject to (i) the interest payment cannot become negative, and (ii) the total amount of the buydown may not exceed US$12.5 million.[6] This flexibility will only apply for a single year of the overall performance period in which a target is missed.
- Latest official value[7]: 28 percent reduction (corresponding to 2018). The next updated value (corresponding to 2021) will become available by May 2024.

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[4] It also builds on the WB's engagement in the livestock sector over the years through lending operations such as the ongoing Uruguay Agro-Ecological and Climate Resilient Systems project (P176232).
[5] The reference value is calculated as the average of the intensity of emissions of methane per unit of product (live weight beef) over the period 1987 to 1991, excluding the maximum and minimum intensity values (i.e., the truncated average of three annual values).
[6] Noting that the WB and GoU have agreed to consider the possibility of applying for additional financing for the buydown as an incentive for early achievement of the KPI targets if new financing becomes available from one or more countries from Annex I of the United Nations Framework Convention on Climate Change.
[7] As of the Board date (November 2023).

- Calculation of the indicator and frequency. Truncated five-year rolling average annual data, reported and externally verified two years and five months after the corresponding observation date. For the calculation of the KPI value, and its assessment compared to the respective targets, the result of the formula will be rounded up or down to the nearest integer, consistent with the way the numerical goals were set under Uruguay's NDC1 and NDC2, as well as in the SSLB Framework.

IV. KPI Methodology and Reporting

9. The KPI calculates the intensity of methane emissions derived from enteric fermentation and manure management of non-dairy beef cattle (excluding sheep and lamb), per unit of live weight beef product.

10. The methodology used to calculate the performance of the KPI will be the same as that employed by Uruguay to report NDCs progress data to the United Nations and is consistent with the SSLB Framework. The estimate of emissions will apply the IPCC 2006 Guidelines, or subsequent versions or refinements as agreed by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), and nationally appropriate methods consistent with that guidance.

11. Starting in 2024, reporting of methane emissions from the beef cattle sector per unit of live weight beef product will be done at annual frequency, in line with the standards of the most developed economies (and beyond Uruguay's requirements under the Paris Agreement).

12. Consistent with the NDC1 and NDC2 presented by Uruguay, the KPI statistic on methane intensity is calculated on a truncated five-year rolling average to smooth inter-annual (primarily weather-based) variation, with the average for the observation year incorporating data from the three preceding years and the following year, with the maximum and minimum values excluded.[8]

V. External Verification and Publication

13. Building on the external verification services already contracted for the SSLB, and thereby strengthening collaboration between development partners, the World Bank and the United Nations Development Program (UNDP) will agree on contractual terms for UNDP to be the independent verification agency for the additional KPI being considered in this SSLL.

14. The verification process will assess the beef cattle methane emissions data collected annually as part of the GHG emissions intensity KPI of the SSLB, as well as annual beef production data to calculate the methane emissions intensity per unit of live weight beef. The World Bank and UNDP will agree on contractual terms to verify the calculation of the methane emissions intensity statistic.

[8] For example, the KPI value corresponding to year 2025 (NDC1 target year), is calculated as the truncated average (i.e., excluding min and max) of intensity values for years 2022, 2023, 2024, 2025 and 2026. Thus, this observation will be calculated in 2027 (when the 2026 data is reported with a one-year lag) and verified by May 2028 (that is, five months after the observation is officially calculated).

15. The external review by UNDP will be conducted according to the methodology contained in the UNFCCC's Guide for Peer Review of National Greenhouse Gas Inventories.[9] In addition, the review will contain a conclusion on the inventory quality, assessed primarily through the examination of the inventory indicators and principles related to Transparency, Accuracy, Consistency, Comparability and Completeness (TACCC principles), established for reporting in the IPCC 2000 and 2003 Good Practice Guidance and also incorporated in the 2006 IPCC Guidelines. Considering the methodology used by Uruguay to prepare the inventory, its adherence to the indications provided in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and any subsequent version or refinement approved by the CMA, will also be examined.

16. Given the formula to calculate the KPI values, allowing for an additional year and five months to report and externally verify the data, the statistic at the start of the performance period in 2028 will relate to 2025 (the target date for NDC1), the statistic at the start of the second half of the performance period in 2033 will relate to 2030 (the target date for NDC2), while the statistic at the end of the performance period in 2037 will relate to 2034.

17. UNDP will provide Verification Reports annually starting in 2024 and through the maturity of the loan, no later than May 31st of the year following the relevant reporting year for the KPIs. It will provide verification of the KPI level reported by the GoU at the observation year against each KPI target. It will also contain additional quantitative and/or qualitative information to facilitate monitoring of progress towards targets.[10]

VI. Built-in Incentives for Early Achievement and One-off Flexibility for a Missed Target

18. To incentivize early achievement of the more ambitious target of 36 percent reduction, the incremental level of interest rate stepdown will be made available a year ahead of the NDC2 target date (i.e., in 2032, corresponding to data for 2029), with corresponding reductions in the buydown amount available for the final two years of the performance period, if applicable. In addition, flexibility will be provided such that if a KPI target is missed during the performance period, at the request of GoU the nominal value of the foregone interest buydown amount for a single year in which a KPI target is missed may be applied as a reduction of interest in year 11 (“buffer year”) of the repayment period, provided the missed KPI target is achieved in that year. These reductions in interest payments will be provided subject to the conditions that: (i) in no year may interest repayments become negative; and (ii) the total value of the interest repayments cannot exceed US$12.5 million. If no target is missed in previous years, the interest payment in year 11 will revert to standard IBRD terms (see Table 1).

[9] https://unfccc.int/files/national_reports/non-annex_i_natcom/application/pdf/final_guide_for_peer_review_report_final_webupload.pdf

[10] The verification report will be delivered to the Bank once a year, four months in advance of one of the payment dates selected by the Government, since the Bank issues the invoice two months in advance of the payment date and requires two additional months to review the report and apply the interest buydown, if applicable, to the next period. For purposes of verifying achievement of the KPI targets, GoU will provide to the Bank and UNDP the information, data, and other evidence supporting the achievement, or lack thereof, of the KPI targets at least five months prior to the KPI’s respective Target Verification Date.

VII. Interest Rate Step-Downs for the Proposed Mechanism

19. The potential interest rate reductions (in basis points) over the performance period were calibrated such that: (i) the annual potential step-down will be the same within each sub-period; (ii) the interest rate stepdown will be higher for years 6-10, compared to years 1-5, to reflect increasingly demanding targets for methane intensity reductions associated to the NDC2, compared to NDC1; and (iii) achievement of the lower KPI target in every year 1 to 5 of the performance period, followed by achievement of the higher target in every year 6 to 10, will lead to a maximum US$12.5 million reduction in the total interest paid over the life of the loan. It should be noted that the dollar amount of the buy-down in any given period cannot exceed the amount of the interest payment (i.e., a negative interest rate will not be possible) and there will be no reduction of the loan principal.

Table 1: Performance Period - KPI Targets, Observation, Reporting and Verification Years

Performance Year	Verification Year	Reporting Year	Observation Year	Higher Target (%)	Lower Target (%)
1	2028	2027	2025	-	33
2	2029	2028	2026	-	33
3	2030	2029	2027	-	33
4	2031	2030	2028	-	33
5	2032	2031	2029	-	33
6	2033	2032	2030	36	33
7	2034	2033	2031	36	33
8	2035	2034	2032	36	33
9	2036	2035	2033	36	33
10	2037	2036	2034	36	33
Buffer Year: 11	2038	2037	2035	36	33

Note: consistent with the NDC1 and NDC2 presented by Uruguay, the KPI value is calculated on a five-year rolling truncated average, with the central year incorporating data from the three preceding and the following year. Allowing for an additional year and five months to report and externally verify the data, the statistic at the start of the performance period in 2028 will relate to 2025 (the target year for NDC1), the statistic at the start of the second half of the performance period in 2033 will relate to 2030 (the target year for NDC2), while the statistic at the end of the performance period (2037) will relate to 2034.

Financial Terms

20. The financial terms of the approved IBRD loan with provision for performance-based interest reductions as described above, are summarized in Table 2:

Table 2: Financial Terms of the IBRD Loan with Performance-Based Interest Rate Reduction

Loan with 15.5yr maturity and 4yr grace period	
Average Repayment Maturity (ARM, in years)	9.89
Payment dates	April and October
First amortization payment	April, 2028
Last amortization payment	April, 2039
Semi-annual principal repayment	$ 15.2MM
Performance period	2028 – 2037
Buffer year	2038
Interest rate reduction tied to lower KPI Target and maximum total nominal interest payment reduction through first performance period	50 bps ($ 6.7MM)
Interest rate reduction tied to higher KPI Target and maximum total nominal interest payment reduction through second performance period	100 bps ($ 5.8MM)

21. During each of the first five years of the performance period, Uruguay may receive an annual interest rate reduction of 50bps if it achieves the lower target (33 percent or more reduction in the KPI) in a given year, or regular IBRD terms (no stepdown) if the lower target is not achieved. During the last five years of the performance period, when the more ambitious target kicks in, Uruguay may receive annually a higher interest rate stepdown (100 bps) if it achieves the highest target (36 percent reduction or more) in a given year, the same stepdown as in the first five years (50bps) if it only achieves the lower target (33 percent or more reduction, but less than 36 percent), or regular IBRD terms (no stepdown) if the lower target is not achieved. During the performance period, the KPI will be checked in the first semester of a given year and if the target is achieved, the corresponding basis point interest reduction will be applied in the following two semester payment dates.

22. The terms of the SSLL compare with the standard terms for an IBRD loan as follows: assuming the same loan structure (4-year grace, 15.5-year final maturity)[11], Uruguay would pay SOFR plus a variable spread[12] (which is 109 bps as of the date of this Note) for the life of the loan. In both cases, the regular fees would apply.[13] In summary, the buydown offers Uruguay the same regular financial terms as a baseline, with the potential to receive a discount of up to $12.5 million over the maturity of the loan, if the corresponding KPI targets are achieved every year.

[11] IBRD's variable spread depends on the average repayment maturity (ARM) of the loan. Uruguay typically chooses loan structures with the ARM up to 10 years.

[12] IBRD's variable spread is calculated and published every quarter. See https://treasury.worldbank.org/en/about/unit/treasury/ibrd-financial-products/lending-rates-and-fees .

[13] Upfront fee of 0.25 percent of the loan's total amount and commitment fee of 0.25 percent per year. applied to undisbursed balances.