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Economic and Social Commission for Western Asia

Sustainability-linked bonds – feasibility and impact potential in the Arab world

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CONTENTS

I. EXECUTIVE SUMMARY

Potomac Group LLC was engaged by the United Nations Economic and Social Commission for Western Asia (UNESCWA) to produce this report on the applicability of Sustainability-Linked Bonds (SLBs) to financing climate action in the Arab World.

SLBs are among the most versatile tools available to sovereigns for financing their national and treaty-based responses to the twin crises of climate change and environmental degradation. Dynamic and highly customizable, SLBs offer spending flexibility to the issuer, as well as transparency to investors and the donor community. Although the structure of any sovereign SLB may vary widely between countries based upon their individual needs, the core requirements for issuing one are mainly based on a government's ability to access international capital markets, its debt sustainability, and its institutional capacity. Many countries in the Arab World meet these requirements and are therefore well-positioned to take advantage of this novel instrument. UNESCWA itself can assist its member countries in this effort in a number of ways, including by:

- disseminating information as a platform for knowledge sharing and technical assistance;
- assisting with the design of targets to ensure they are both ambitious and in line with countries' climate goals and development agendas;
- bringing together the necessary international actors, such as conservation organizations, commercial banks, and development partners, that can play key roles in the SLB process;
- participating in the monitoring and evaluation of issuers' progress towards linked sustainability targets;
- and hosting capacity building workshops to improve member countries' abilities to execute transactions and follow through on commitments.

Managing an SLB issuance is a complex undertaking that involves participation at different levels of government and strong coordination between various ministries. Nevertheless, it is generally a worthwhile endeavor for countries that can handle this challenge, as the instrument can be specially tailored to the concerns of the issuer. This report therefore includes two country case studies (Jordan and Oman) to demonstrate how an SLB may be practically applied in different contexts and examine the diverse set of considerations that may advise the unique design of a sovereign SLB.

II. INTRODUCTION: CLIMATE CHANGE AND NATURAL RESOURCE MANAGEMENT IN THE ARAB WORLD

The Arab World, comprised of 22 countries, is a diverse region which can be described as energy rich, water scarce, and food deficient. It is among the most vulnerable regions to the negative impacts of climate change and has often been described as a future climate change hotspot most affected by climate impacts, many of which are becoming visible. It experiences increasing temperatures, expanding desertification, salinization, and droughts among many other challenges.[1]

These challenges are compounded by human-induced factors relating to unsustainable land and water management, including overgrazing and unregulated urbanization.[2] The population is over 400 million and is projected at around 635 million by 2050.[3] The rapidly growing population and accompanying urbanization are exerting pressure on the dwindling natural resources. Additionally, nighttime temperatures are projected to increase by 3°C by 2030.[4] Finally, these adverse impacts also exacerbate existing socio-economic and environmental weaknesses and increase resource insecurity and displacement.

The Arab World still encounters significant challenges in achieving the Sustainable Development Goals (SDGs). The most common relate to SDG 5 (Gender Equality), which remains the biggest challenge, as well as SDG 2 (Zero Hunger) and SDG 8 (Decent Work and Economic Growth).[5] Challenges also remain for other SDGs, including 3 (Good Health and Well-being), 6 (Clean Water and Sanitation), 9 (Industry, Innovation and Infrastructure), 15 (Life on Land) and 16 (Peace, Justice and Strong Institutions).[6,7]

There are positive trends in the region in three important areas: education (SDG 4), clean energy (SDG 7) and climate action (SDG 13). Most countries on a positive trajectory on SDG 7 are high-income or oil-exporters, while progress on SDG 13 is mainly seen in lower income countries, mainly due to their lower consumption.[8]

Six countries have achieved two-thirds of the overall SDG Index score: Jordan, Tunisia, UAE, Algeria, Morocco, and Oman. The Arab region's score is lower, at 58 out of 100.

Accelerating efforts to achieve the SDGs is becoming increasingly urgent. Countries in the region stand to benefit - individually and collectively - if they succeed in achieving the SDGs. There is an upside for Arab countries in the pursuit of climate mitigation and adaptation, as they can create synergies with national development priorities and the SDGs.[9]

All Arab countries, except Yemen and Libya, have ratified the Paris Agreement and submitted nationally-determined contributions (NDCs), in which they outline national goals and strategies to mitigate and

[1] Moustafa Bayoumi, and others, 2022.

[2] Mona Khechen and Petra Samaha, 2023.

[3] United Nations Development Programme, 2018.

[4] *Ibid*.

[5] Moustafa Bayoumi, and others, 2022.

[6] *Ibid*.

[7] United Nations Economic and Social Commission for Western Asia, 2022.

[8] Moustafa Bayoumi, and others, 2022.

[9] *Ibid*.

adapt to climate change. In 2021 and ahead of COP 26, 16 countries submitted a new or updated NDC. The same year, Bahrain, Saudi Arabia, and the UAE announced a net-zero emissions target by 2050.[10]

Given their unique national circumstances, Arab countries have very different NDCs, with different strategies required to achieve climate targets.[11] Nonetheless, most NDCs in the region prioritize climate-resilience, with plans to tackle vulnerability of food, land and water to climate impacts, investing in capacities for early warning systems (EWS) and community resilience.[12]

Many countries are investing in renewable energy and set up institutions to plan and implement policies to build resilience and become low-carbon societies.[13] As the world's eyes turn to COP 28 in the UAE and the 2023 IMF Meetings in Marrakech, attention given to climate and SDG action and financing is increasing. Additionally, UNESCWA countries (all Arab countries except Comoros and Djibouti) are seeking to accelerate efforts to conserve biodiversity and fight desertification. Key players include the "Council of Arab Ministers Responsible for the Environment (CAMRE) Technical Secretariat, ESCWA and the United Nations Environment Programme/Regional Office for West Asia".[14]

Finally, accelerating change will require Arab countries to invest more resources to generate and make data available in the areas presented above. This will be essential to enable impactful regional and national policies that accelerate developmental actions. Change will also require major efforts, collaboration and financing at the regional and international levels, and poor and conflict-affected countries will require additional help to avoid falling behind.

[10] *Ibid*.

[11] *Ibid*.

[12] United Nations Development Programme, 2018.

[13] Moustafa Bayoumi, and others, 2022.

[14] United Nations Economic and Social Commission for Western Asia, 2022.

III. OVERVIEW OF SUSTAINABILITY-LINKED BONDS AND OTHER KPI-LINKED INSTRUMENTS

Sustainability-Linked Bonds (SLBs) and sustainability-linked loans (SLLs) are flexible, new, and evolving financial instruments that align environmental, social, and governance (ESG) goals with financial incentives. They aim to further develop debt markets' important role in supporting both public and private entities as they pursue sustainability objectives.

Originally an instrument of corporate finance, the SLB was developed as recently as 2019 in response to the issue of greenwashing – the practice of misleadingly labelling a debt instrument or investment as ESG when it actually does very little to support any such initiatives. Given the rising ubiquity of corporate ESG instruments, the issue became so prevalent (or at least was perceived to be so prevalent) that the cost benefits of issuing an ESG bond became largely negligible. Given the traditional use-of-proceeds structure of classic sustainable bonds, greenwashing fears were stoked by the lack of oversight and sheer opacity of issuers' spending practices as they pertain to honoring the stated objectives of a given ESG instrument. In other words, a bond may be issued under the pretense that the proceeds will be spent on greening some aspect of an issuer's production practices, when in fact it supports little more than business as usual (BAU). This concept is particularly relevant for sovereign issuers, for whom there is no regulatory body that can ensure spending fidelity.

The solution, first issued by the Italian energy company, Enel, was a bond that allowed for the free and clear use of proceeds but demanded that certain targets be met over the life of the bond. The issuer's success or failure in meeting these promised targets would then have financial implications for the remainder of the bond repayment schedule. These parameters are pre-determined within the original bond documentation and are therefore as legally binding as the debt obligation itself.

Due to the unique functionality of SLBs in comparison to other ESG instruments, the International Capital Markets Association (ICMA) in 2020 began publishing its Sustainability-Linked Bond Principles (SLBP), which were most recently updated in 2023 and serve as a set of general guidelines and best practices for potential SLB issuers (*see Appendix 5*). These are notably different from the ICMA Sustainability Bond Guidelines (SBG), which, along with the more narrowly focused Green Bond Principles and Social Bond Principles, pertain only to traditional use-of-proceeds bond frameworks. Like the SBG, the SLBP are strictly voluntary guidelines. Nevertheless, SLB issuers, both corporate and sovereign, will commonly choose to design their own SLB framework according to ICMA guidelines. Many even go as far as to request a professional second-party opinion (SPO) to appraise their framework's adherence to the SLBP, since doing so lends credibility to associated bond issuances.

Multiple companies have issued SLBs since Enel's inaugural SLB in 2019, as well as two Sovereigns, Chile and Uruguay, both in 2022. In 2021, the overall SLB market was expected to grow x12-x15 in the near term, compared to about x1.5 for traditional green bonds[15]. This is partly due to the transparency and flexibility that they offer over traditional sustainability bonds (*see below under Economic Advantages of a KPI-Linked Debt Structure*). The ICMA describes an SLB as "a forward-looking performance-based instrument", [16] and through their unique versatility, they stand to fundamentally change the way that sovereigns finance their sustainability agendas.

[15] Abdeldjellil Bouzidi and Denis Papaioannou, 2021.

[16] International Capital Markets Association, 2023.

Mechanics of a Sustainability-Linked Bond

First and foremost, an SLB differs fundamentally from a traditional green or social bond in that it places no restrictions on how the bond proceeds may be used. Although this may seem contrary to the bond's purpose as an effective driver of sustainability, the SLB model is actually far more rigid in its requirements for meaningful action and the achievement of intended goals. Whereas a traditional use-of-proceeds (UoP) bond relies solely on a promise that at least a portion of the funds being raised will be directed towards the achievement of certain objectives, an SLB makes its financial parameters contingent upon the actual completion of those objectives. This achievement must be verified by one or more external auditors in order to trigger any financial bonuses or penalties. In this way, the SLB model counters the greenwashing potential of the traditional UoP model by adding both accountability and transparency to the underlying sustainability objectives. Based upon the unique structure of any given SLB, the financial terms of the bond may become more or less favorable for the issuer depending upon its ability to meet its targets within a preset timeframe.

Table 1. Comparison between SLBs and Traditional UoP Bonds

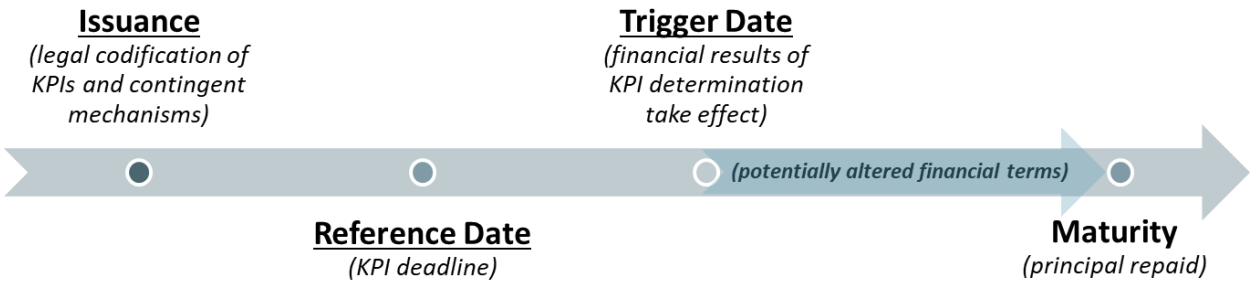
Parameter	SLB	UoP Bonds
Use of Bond Proceeds	Free and clear	Restricted as specified within supporting bond documentation
Sustainability Objectives	Defined as a specific list of measurable targets that must be verifiably achieved by a certain predetermined date	Outlined within bond framework and documentation as according to intended allocation of proceeds
Finance for Sustainability Measures	Allocated as needed through general budget	Sourced from bond proceeds in prespecified amounts
Accountability	Independent auditors provide legally binding second-party opinions on the success or failure of sustainability initiatives	Reliant on government fidelity to the promises made within the bond framework and documentation
Consequences for Underachieving Objectives	Modification to financial structure of bond, potentially including a higher cost of debt service, or at least a missed opportunity for savings or additional funding	None, though future UoP bonds will be much more difficult to issue due to reneging on promises
Requirements for Issuance	Market Access; High institutional capacity to coordinate sustainability action; Credible independent (ideally international) partners to assist with monitoring, reporting, and verification	Market Access; High enough level of governance that the market and other stakeholders view sustainability commitments as credible;

Advantages		
for the issuer	More spending flexibility with no restrictions on use of proceeds; highly customizable in terms of both financial structure and sustainability targets; can be structured so that successful sustainability action facilitates a lower cost of borrowing; greater eligibility for credit enhancement given increased transparency	No risk of financial penalty for failing to achieve sustainability goals; not beholden to same level of external scrutiny and oversight as SLBs
for the market	High level of transparency and accountability reduces fears of greenwashing; if additionally paired with a credit enhancement, can also reduce investment risk	UoP bonds are familiar instruments that can easily be priced and modelled to determine risk and return
Limitations		
for the issuer	Requires high level of coordination and capacity in order to meet ambitious sustainability goals; Depending on structure, SLBs may carry risk of financial penalty upon failure to meet objectives	Only financial benefit is a potential greenium, which tends to be minimal as it is dependent upon investors' will to accept lower returns for green instruments
for the market	Relatively new structure that can be difficult to price, and unique contingency elements make it harder to estimate risk	Higher risk of greenwashing due to lack of independent oversight or extranational regulation on use of bond proceeds

The intended goals of an SLB issuance are embodied within the bond documentation as "sustainability performance targets" (SPTs). Although an SLB can incorporate any number of SPTs, each one must be specific and reasonably achievable, but also decidedly ambitious beyond BAU. The SPTs are measured according to specific metrics known as "key performance indicators" (KPIs), which are also predefined within the bond documentation. The KPIs are each closely tracked by an independent auditor, who will publish periodic, publicly accessible SPOs as to their status throughout the implementation period.

There are two key dates attached to each KPI – a reference date, and a trigger date. A KPI's **reference date** is the deadline for the achievement of the one or more SPTs that it measures (*see Figure 1*). Shortly thereafter, the SPO provider for that KPI will publish a legally binding determination as to whether or not the SPTs that it measures were meaningfully achieved according to the parameters laid out in the original bond documentation. Based upon that determination, a change in the financial structure of the bond may then take effect. This change, if it comes to pass, would come into force upon the KPI's **trigger date**.

Figure 1. Basic Anatomy of a Sustainability-Linked Bond with a Single KPI



Each KPI can measure one or more SPT, and an SLB can incorporate more than one KPI. The reason that the financial alterations and related dates are bound to KPIs, rather than to the SPTs themselves, is that each KPI metric may or may not be evaluated by a different external auditor based upon professional expertise. For example, an SLB may have multiple targets related to forest coverage, all of which may be measured by a KPI, "hectares of forested area". Likewise, other SPTs within the same SLB may relate to greenhouse gas (GHG) emissions, and all of these targets could be measured by a KPI, "metric tons of CO2 equivalent" (mtCO2e). The science of tracking each of these sets of targets resides within a separate discipline and may therefore require two different SPO providers based upon their specific technical expertise. In fact, the first ever sovereign SLB, issued by Chile in 2022, incorporates two KPIs with a different auditor for each one (*see Box 1*).

Box 1: Chile's Sustainability-Linked Bond Structure

Two KPIs* supporting *Three SPTs

- KPI 1 – gross GHG Emissions per year, measured in MtCO2e
  - SPT1a – 95 MtCO2e per year by 12/31/2030
  - SPT1b – Maximum budget of 1,100 MtCO2e elapsed between 1/1/2020 and 12/31/2030
- KPI 2 - Non-Conventional Renewable Energy, as a percentage of total generation in the National Electric System
  - SPT2 – Non-conventional renewable energy must comprise 60% of all electricity generated in Chile by 12/31/2031

***SPO Providers* (independent auditors)**

- Sustainalytics – external private firm that often provides corporate SPOs
  - Initial SPO on validity of SLB Framework in accordance with ICMA guidelinesSPT1b – Maximum budget of 1,100 MtCO2e elapsed between 1/1/2020 and 12/31/2030
- UNFCCC - external international body
  - Biannual reports assessing KPI1
- National Electric Coordinator - local, but still independent entity
  - Annual reports assessing KPI2

***Financial Component* – Alterations to bond structure upon failed KPIs**

- Coupon Step-up of 12.5bps per failed KPI (total possible step-up of 25bps to 4.465%) SPT1a – 95 MtCO2e per year by 12/31/2030
- Trigger Date: 3/7/2034

Both of the sovereign SLBs currently on the market incorporate one of the most common contingent financial alterations used in corporate SLBs: a coupon adjustment. In the event that a KPI is not met across all

SPTs, the bond documentation for Chile's SLB stipulates a "coupon step-up" of 12.5 basis points (per failed KPI). This means that, should the external auditor for a given KPI publish an SPO stating that the SPTs for that KPI were not met according to the specified targets, the government's interest payments on the bond will increase by 0.125 percentage points for the duration of the bond tenor, effective as of the KPI's trigger date. Should both KPIs be declared a failure by their respective auditors, then the bond's coupon rate at maturity will be 0.250 percentage points higher than it was at issuance.

Uruguay's SLB utilizes a similar, though slightly more complex structure (*see Box 2*). Each KPI has two SPTs – a lower threshold and a higher one. In the event that Uruguay cannot achieve the lower target, the repayment terms of its bond will suffer a similar coupon step-up. Likewise, meeting this target will negate that alteration. If, however, the country is able to go above and beyond by meeting the higher, more difficult target by the same prespecified reference date, then it will enjoy a "coupon step-down", meaning that it will enjoy a lower interest rate for the duration of the bond's lifetime. This means that, as the coupon adjustment is 15 basis points in either direction for both KPIs, Uruguay may fail one and overachieve the other with the result of maintaining its initial coupon rate throughout the life of the bond.

Box 2: Uruguay's Sustainability-Linked Bond Structure

Two KPIs* supporting *Four SPTs

- KPI 1 – GHG Emissions (measured in CO_2e) per real GDP unit, ruling indicator - percent (reference year: 1990)
  - SPT 1.1 – SPT 1.1 – 50% reduction by 2025
  - SPT 1.2 – 52% reduction by 2025
- KPI 2 - Maintenance percentage of native forest area (measured in hectares), ruling indicator - percent (reference year: 2012)
  - SPT2.1 – Maintain 100% of native forest area by 2025
  - SPT 2.2 - Maintain 103% of native forest area by 2025

***SPO Providers* (independent auditors)**

- Sustainalytics – external private firm that often provides corporate SPOs
  - Initial SPO on validity of SLB Framework in accordance with ICMA guidelines
- UNDP - external international body
  - KPI 1 to be measured annually
  - KPI 2 to be cartographically measured quadrennially using satellites

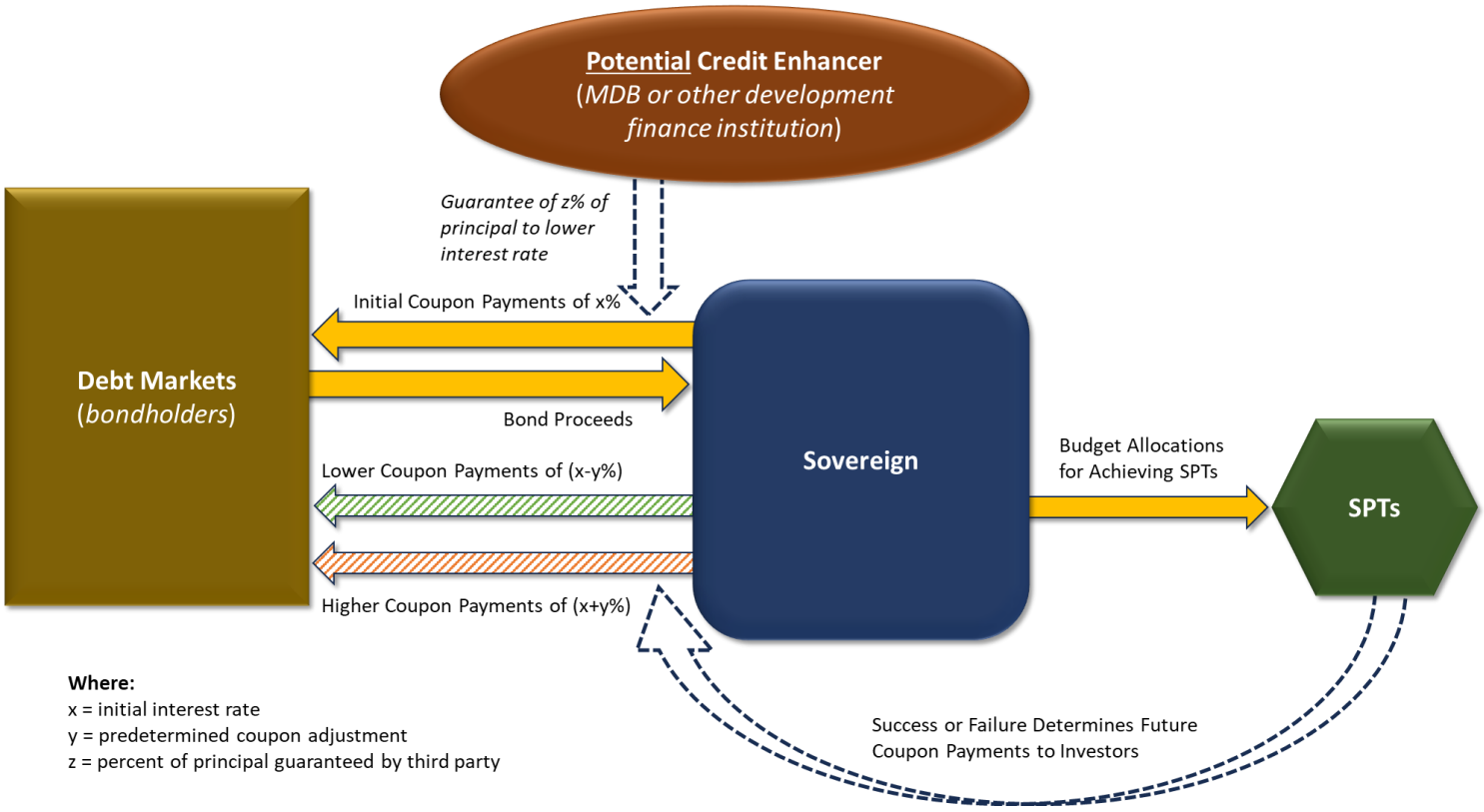
***Financial Component* – Alterations to bond structure upon failed KPIs**

- Coupon Step-up of 15bps for each of SPT 1.1 and SPT 2.1 that are not achieved by 2025
- Coupon Step-down of 15bps for each of SPT 1.2 and SPT 2.2 that are achieved by 2025

The innovation of Uruguay's bond on Chile's inaugural model is testament to the versatility of the SLB structure, though its capacity for customization is much greater even than that. For instance, some corporate models forego the coupon adjustment mechanism in favor of a simple premium payment at maturity. A sovereign, however, is a fundamentally different issuer than a private company, with different considerations to account for as it ponders such an ambitious undertaking.

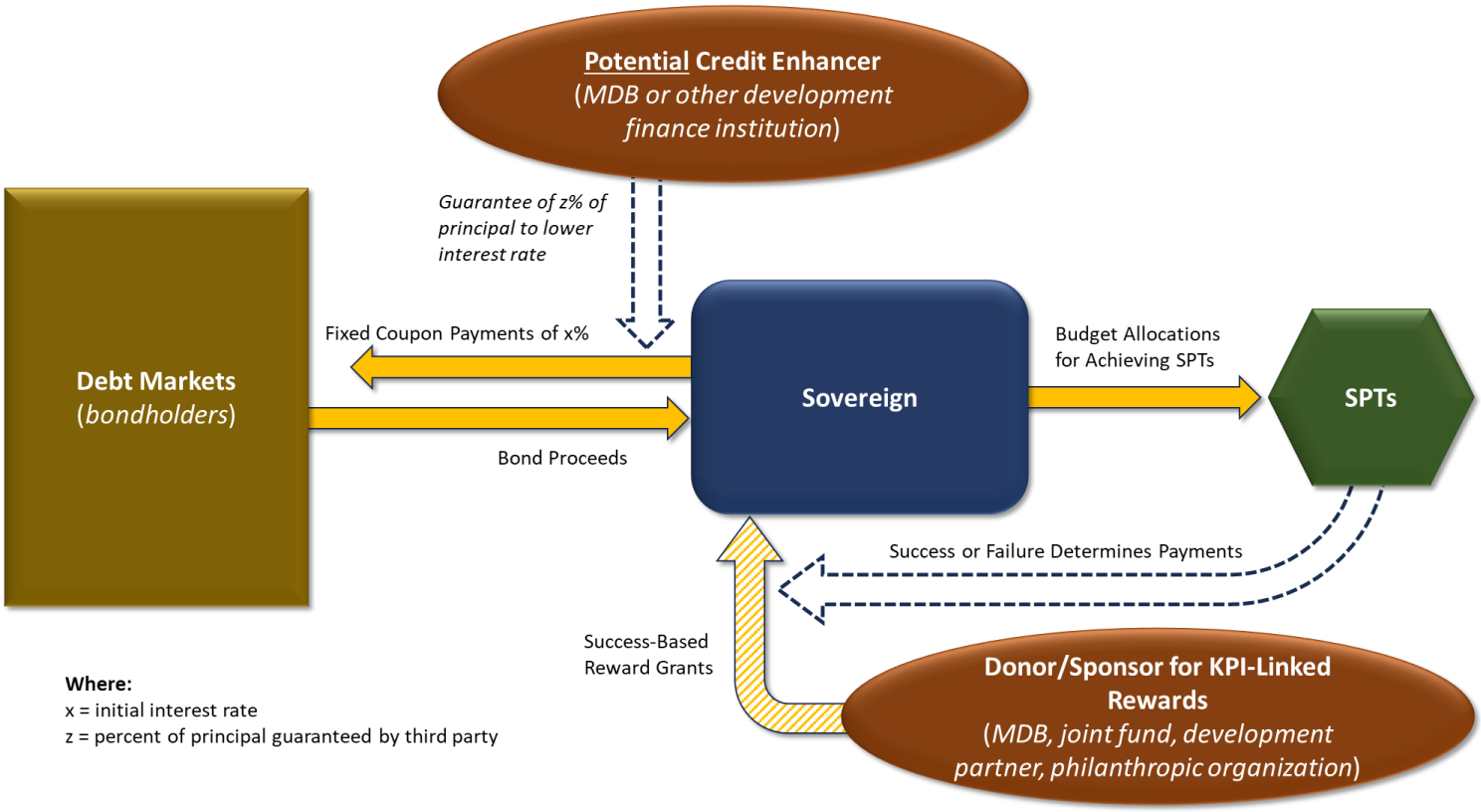
An SLB can be designed according to the idiosyncratic needs of its issuer, and sovereigns have the unique ability to request support from large international donors such as multilateral and regional development banks. If such entities were willing to make additional grant payments contingent upon KPI success (*see Figure 2b*), it could greatly bolster an initiative's survivability through changes in the political landscape. For example – an incoming government with fundamentally different views than the previous administration that issued the SLB may not consider a simple coupon adjustment (*see Figure* 2a) on just one of its sovereign bonds to be reason enough to continue pursuing highly ambitious and potentially resource-intensive sustainability targets.

Figure 2a: Basic Model of an SLB Using a Coupon Adjustment Mechanism



The promise of unlocking previously inaccessible grant money, however, may provide more compelling motivation to see projects through to completion. It may also circumvent the awkward political development wherein debt service is very suddenly a more expensive strain on the national budget. To clarify, this concept does not refer to an SLB's additional potential to benefit from credit enhancement (*see below under Economic Advantages of a KPI-Linked Debt* Structure), but rather to the possibility of a rewards-based KPI structure (*see Figure 2b*), as opposed to one that incorporates a coupon adjustment (*see Figure 2a*).

Figure 2b: Basic Model of an SLB Using a Donor-Backed Reward Mechanism



Finally, this sort of donor-funded rewards-based SLB structure may additionally be more appealing to impact investors. Despite the SLB's heightened level of accountability over traditional use-of-proceeds bonds, most existing SLB frameworks, including the two sovereign examples described above, create a scenario wherein the investor will receive a higher return if the issuer fails to meet its targets. This undesirable moral hazard could be avoided if KPI success were instead linked to third-party donor funding, rather than advising the bond's repayment schedule (*see Figure 2b*).

This arrangement would be separate from any donor-sponsored credit enhancement and would likely involve a different development partner than the former, as each plays a distinct role within the same transaction structure. It is also important to note here that this rewards-based arrangement, while solely dependent on KPI success, may still be voided in the event of default, particularly if the debt is subsequently restructured into an entirely new instrument. If planned in advance, however, it could theoretically be possible to include a provision within the bond documentation wherein this KPI rewards program would survive the termination of the overall lending arrangement, allowing incentivized sustainability measures to continue despite the onset of debt distress.

Ideally though, this success-based grant funding should hopefully make it easier for the sovereign to avoid default, as it offers free, additional financing that can be directed towards debt service. Overall, such a model would be highly contingent on the willingness of international donors and/or development partners, but in any event, the concept alone helps to illustrate the immense potential and customizability of a KPI-linked debt instrument, be it a bond or a direct loan.

Table 2. Comparison of Various SLB Financial Structures

SLB Financial Structure	Basic Mechanics	Market Example
Simple Coupon Step-Up	If issuer fails to meet targets under single KPI by the reference date, coupon payments increase for remaining tenor.	Enel, 2.65% 10sep2024 (*corporate*) **Amount**: USD 1.5 billion **Issued**: September 2019
Multi-KPI Coupon Step-Up	Structure includes multiple KPIs, each with its own reference date. Each KPI carries an equally sized coupon increase as penalty for failing to meet related SPTs.	Chile, 4.34% 7mar2042 (*sovereign*) **Amount**: USD 2 billion **Issued**: February 2022
Weighted Coupon Step-Up	Each of multiple KPIs is weighted according to priority/importance. Each one carries a coupon increase proportional to its assigned weight as penalty for failing to meet related SPTs.	H&M, 0.25% 25aug2029 (*corporate*) **Amount**: EUR 500 million **Issued**: January 2021
Tiered Coupon Step-Up/Step-Down	Each equally weighted KPI has its own reference date and carries an equally sized coupon increase for failing to meet related SPTs. If, however, the issuer exceeds an SPT by a certain, predetermined threshold by the reference date, coupon payments decrease.	Uruguay, 5.75% 28oct2034 (*sovereign*) **Amount**: USD 1.5 billion **Issued**: October 2022
Premium Payment	Failing to meet SPTs by each KPI's reference date will not affect coupon payments, but instead result in an additional, predetermined lump sum payment to bondholders at maturity.	Chanel Ceres, 0.5% 31jul2026 (*corporate*) **Amount**: EUR 300 million (*First half of 2-tranche SLB. Equally sized second tranche with different KPI and 1.0% coupon matures 31jul2031*) **Issued**: September 2020
Donor-Backed Success Payments	Each KPI carries a predetermined lump sum bonus payment, to be provided by a willing sponsor, such as an MDB or other development partner, if the issuer successfully meets related SPTs.	Currently Theoretical

Sources: Cbonds;[17] Norton Rose Fulbright;[18] H&M Group;[19] Chanel;[20] Government of Chile;[21] Government of Uruguay[22]

Economic Advantages of a KPI-Linked Debt Structure

KPI-Linked debt instruments can have a positive impact on the economy, society, and institutions of a country, strengthening the nation as a whole and enabling GDP growth and job creation. In fact, the most effective KPIs and SPTs should be chosen based not only on their **material impact on sustainability**, but **also on their macroeconomic impact**.[23] Achieving the targets should thereby contribute to economic growth, making it easier for the country to pursue additional sustainability and development goals in the future.

[17] Cbonds. Data Platform. 2023.

[18] Norton Rose Fulbright, 2020.

[19] H&M Group, 2021.

[20] Chanel, 2020.

[21] Ministerio de Hacienda, 2022.

[22] Uruguay, 2022.

[23] Abdeldjellil Bouzidi and Denis Papaioannou, 2021.

There can also be a positive ripple effect in pursuing certain initiatives, as projects that address one national goal may additionally yield benefits that further several other goals simultaneously, including societal ones. For example, a KPI based around sustainable land management may involve a comprehensive agroforestry project, which incorporates trees and other vegetation into agricultural for the purpose of maintaining soil richness and avoiding harmful 'slash and burn' field rotation. Naturally, a successful agroforestry initiative would reduce deforestation (a common NDC in the *climate adaptation* category) by allowing farmers to continue working the same plot of land, rather than needing to clear new space by removing trees. In addition to helping safeguard against the effects of climate change through preserving the balance of natural ecosystems, reducing deforestation also contributes to *climate mitigation* NDCs, since forests act as natural carbon sinks and help to offset emissions. It also goes without saying that protecting these environments works to conserve biodiversity as well. Furthermore, the nutrient-rich roots of trees and shrubs, when incorporated into farmland, not only help to preserve the potency of topsoil, but also to hold it in place, building resilience against droughts, floods, and general land degradation. Finally, by ensuring the consistent fertility of farmland and preventing the need to spend time clearing new fields, agroforestry can increase crop yields and improve local economies, thereby contributing to both food security and human wellbeing. In these ways, an initiative designed to address a single KPI can yield widespread benefits for other national goals across all three Rio Conventions (Climate Change, Biodiversity, and Desertification) and the SDGs. Taking care to design an SLB around targets that have similar cross-cutting impacts can maximize its benefit to a country's environment and its economy.

The above-mentioned benefits all pertain to the selection of sustainability goals, and while there are many different financial tools that could be used to fund the same initiatives, the SLB structure boasts some additional benefits.

The most straightforward of these, though possibly the least profound, is the potential to secure a **"greenium"**. This refers to the difference between the coupon rate that an issuer is able to secure for an SLB and its normal market rate for a vanilla issuance. As such, it represents a slight discount in the cost of borrowing due to a heightened market demand for green instruments. In the absence of an identical vanilla bond issued alongside a green bond, however, there is rarely a perfect calculation for this discount. In general, greeniums tend to be modest at best, though the SLB model's greatly increased level of accountability over the traditional use-of-proceeds model lends it slightly greater potential for a decent greenium, as it more effectively counters investor concerns over greenwashing. Additionally, the greenium potential appears to be higher for bonds with a larger coupon step-up and for callable bonds.[24]

As previously stated, however, this potential borrowing discount is underwhelming in comparison to the other benefits of issuing an SLB. In fact, analyses of primary and secondary sovereign debt markets across academic literature are generally inconclusive on whether sovereign green bonds can generate a meaningful discount.[25] While more recent literature analyzing the growing sovereign green bond markets shows some evidence of a greenium, no such analyses have been comprehensively conducted for SLBs. Ando et al. find that green bonds are issued and trade at relatively small premiums in advanced economies – while the greenium is significantly larger in emerging economies – around 11 basis points.[26] Investors are typically more willing to purchase green bonds to diversify their portfolios, and there is evidence that underwriters now charge lower fees for green bond issuances, especially since 2018 with

[24] Lisa Willems and Tenke Zoltani, 2022.

[25] Monika Grzegorczyk and Guntram Wolff, 2022.

[26] Sakai Ando, and others, 2023.

the rise of ESG instruments.[27] Yet the greenium is not significant enough to make a tangible difference in the financing cost of these bonds. In more liquid and developed markets, like in advanced economies, the sovereign greenium can often be non-existent, or even negative, during periods of volatility or particularly high volumes of trading.[28] This may be due to the sovereign green bond market being relatively small and illiquid, with investors requiring a liquidity premium to trade them.

The signaling effect of these issuances, however, is the strongest determinant for any evidence of a greenium.[29] Cheaper financing is generally not the motivation for sovereigns to issue debt for funding green projects. Rather, green finance allows sovereigns to signal their commitment to contribute and finance the green transition. This is evident from the fact that, unlike private bonds, sovereign green bonds, or green bond frameworks, cannot compel the sovereign to allocate their proceeds towards defined expenditures mandated by the issuance prospectus. Weaker and less credible issuers, however, can often generate larger greeniums if they are compelled to operate under predefined transparency and reporting standards through an independently evaluated sovereign green bond framework or issuance prospectus. This explains the higher observed greeniums in emerging green bond markets,[30] though this concept is applicable beyond sovereigns in emerging economies. For example, in the United States, there is conclusive evidence that the size of the greenium is higher in states or municipalities with more robust environmental policies, or where the local governments actively pursue green bond characteristics.[31] Likewise, sovereigns within the European Union, which are already investing heavily in the green transition despite benefitting from relatively small greeniums, do experience significant differences in the size of the greenium across countries based on varying credibility and policy stances.[32] In other words, while the potential for a discount on the cost of borrowing due simply to the green label on an instrument is somewhat limited, the credibility of that label based on its supporting framework and the track record of the issuer can serve to amplify the potential greenium to some extent.

The SLB's potential to secure a lower cost of borrowing is even more greatly enhanced by its conduciveness to obtaining a credit enhancement from a willing donor. Along with demanding a much higher level of accountability, the structure also offers an exceptional level of transparency due to its inherent requirement that the issuer's progress towards the linked sustainability goals be regular monitored by an external party. As the bond structure is financially contingent on this monitoring, it is an essential element of any SLB, thereby assuring potential guarantors that their commitment is being applied as effectively as possible.

Credit enhancements, such as guarantees or political risk insurance, can represent a critical advantage for countries that have a normally high cost of borrowing due to a mediocre sovereign credit rating. For example, the Inter-American Development Bank (IADB) agreed to guarantee 75% of a social bond issuance for Ecuador towards the beginning of the pandemic. The guarantee meant that, should Ecuador default on its USD 400 million obligation, investors could expect the IADB to reimburse them for up to USD 300 million of principal and interest, effectively making the investment far less risky for the bondholders by partially applying the development bank's AAA credit rating to that single bond. As a result, Ecuador was able to issue the social bond with a coupon rate of 7.25%, when its most comparable

[27] Boyuan Li, and others, 2023.

[28] Monika Grzegorczyk and Guntram Wolff, 2022.

[29] *Ibid.*

[30] Sakai Ando, and others, 2023.

[31] Boyuan Li, and others, 2023.

[32] Monika Grzegorczyk and Guntram Wolff, 2022.

vanilla bond by tenor carried a coupon of 9.5%, implying a discount of 225 basis points, far more than any greenium could offer. Through this transaction, the IADB's USD 300 million was able to mobilize more financing for Ecuador as a contingent liability than it could have done as a simple grant. Moreover, Ecuador's ability to repay the debt and prevent the IADB from having to intervene is higher due to the much lower cost of borrowing.

With only two issuers in the market so far, sovereign SLBs have yet to benefit from the substantial savings afforded by a sizeable guarantee. Previous examples of credit-enhanced sovereign bond issuances, however, such as Ecuador's social bond, demonstrate the potential impact of this sort of support. Guarantees on sovereign debt are, however, somewhat rare. This may be partly due to the relative opacity of use-of-proceeds instruments, implying that the development bank's funds may be applied more effectively as a project-based grant. An SLB is much more conducive to guarantees though, as it offers much more comparable levels of transparency and accountability, while retaining the advantage of mobilizing additional financing through the private sector. In this way, the potential of an SLB to lower a government's cost of borrowing is far greater than it would be through a greenium alone.

Finally, SLBs may offer a longer-term reduction in the cost of borrowing through their ability to improve the issuer's governance and institutions. As a highly ambitious and demanding undertaking requiring a great deal of intragovernmental coordination, it encourages issuers to build strong institutions, frameworks, and mechanisms to guarantee a successful issuance and avoid paying a penalty. In other words, while successfully meeting SPTs will directly yield economic and social benefits for the country, the efforts made throughout that process will also improve its perceived level of governance. In this way, the SLB is a holistically ESG instrument.

Issuing an SLB can indeed be costly, particularly in the initial stage as the government establishes the appropriate monitoring, reporting and verification mechanisms, but also throughout the implementation period. Many of the middle-income countries in the Arab World may require assistance from development partners and other countries, potentially including technology transfer and the sharing of best practices. Naturally, it could also be costly if a country were to fail to deliver on SPTs, though bonds can certainly be structured to minimize this risk through a rewards-based approach. The customizability of the SLB structure provides ample opportunity to control the severity of the consequences for missing KPI reference dates. While Chile and Uruguay have both arranged it so that their interest payments will increase in the event of underachievement, future sovereign SLBs may instead be structured so that the consequences of KPI failure are not financial penalties, but rather just missed opportunities for financial bonuses.

While the consequences of failure are determined entirely by the design of the issuing sovereign, there are also ways to mitigate the risk of KPI failure in the first place, since even just a missed opportunity is less preferable to a realized reward. A country's ability to successfully carry out sustainability measures is based largely on its institutional capacity and its choice of development partners, but it may also be subject to other variables, including environmental externalities.

A largescale natural disaster, such as a flood, wildfire, storm, or drought, can be devastating to a country's economy, thereby affecting not only its ability to repay its debt obligations, but also its ability to continue carrying out a carefully orchestrated climate or nature program. Disaster clauses in bond documentation have been used in vanilla sovereign bonds for years to suspend debt service in the wake of a sufficiently sizeable natural disaster.[33] While it is always prudent to include such provisions for new bond issuances,

[33] Jim Ho and Stephanie Fontana, 2021.

it may additionally be possible within the context of an SLB to allow a KPI reference and/or trigger date to be pushed back in the event that a natural disaster has caused severe disruption to operations on the ground. Similar arrangements could be devised to safeguard against sufficiently severe economic shocks born out of sociopolitical externalities, such as substantial disruptions to global supply chains.

Endogenous political strife may also impede a country's ability to successfully achieve its sustainability goals. While political risk insurance as a form of credit enhancement may lower the country's cost of borrowing by safeguarding investors against payment irregularity due to political turmoil, it is not set up to ensure the continuation of climate activities. Severe political instability may preclude the completion of a KPI program, but in cases of simple government turnover, an incoming administration may be compelled to continue the program if the rewards for success provide sufficient incentive.

While the risk posed by negative externalities may be mitigated through appropriate contingencies embedded within the bond documentation, the best way to limit the risk of failing to achieve SPTs is to design the SLB structure in such a way that: A) the SPTs are reasonably achievable, albeit ambitious, and; B) there is indisputable incentive to follow through with the program even in the event of political turnover. Although the risks, costs, and effort that go into executing an SLB program are considerable, the rewards of doing so are greater still.

Linking KPIs to the Climate and Nature Goals of UNESCWA Member States

Aside from an SLB's versatility in terms of financial structure, it is also highly customizable in the way it targets sustainability goals. Given that UNESCWA has 20 member states, each with their own circumstances and challenges, this is a very important aspect of the instrument. As such, any KPI selection process must consider the priorities and most pressing needs of the issuing country.

Depending on the country and the timing, some NDCs or SDGs will be considered more urgent, making it necessary to adopt a bespoke approach. For instance, governments strongly dependent on hydrocarbon imports, such those within the Gulf Cooperation Council (GCC), are likely to be interested in a quick energy transition given the impact of high oil prices on their economies. Likewise, countries for whom agriculture makes up a sizeable portion of the economy, such as Egypt, may seek to prioritize food and water security, as well as antidesertification, particularly following the recent construction of the dam in upstream Ethiopia. Anchoring these foci to pre-codified national targets, such as the NDCs, bolsters their legitimacy and sets the SLB firmly within the context of a country's broader development plan.

In fact, part of the effectiveness of a KPI-linked instrument comes from its ability to focus directly on specific objectives as they are laid out in a country's NDC document, or any other treaty or national plan for that matter. This is useful since, in addition to being ambitious, an SPT must also be very specific, including both a measurable target and an explicit implementation timeframe. Ideally, a country's NDCs should be designed similarly, making them particularly well-suited as starting points for the design of SPTs. This means that, if a country's national goals are not well ordered and sufficiently precise, it is a prudent first step to remedy that situation **prior** to considering the design of SPTs and KPIs. Governments' targets under the three Rio Conventions should support their national development plans and exhibit a high level of congruity.

Once these documents are adequately specific, congruous, and up to date, the first step to formulating SPTs and KPIs for an SLB issuance is to select one or more goals that the government considers to be of particular national importance. Specific, trackable targets (the SPTs) that contribute to that goal and

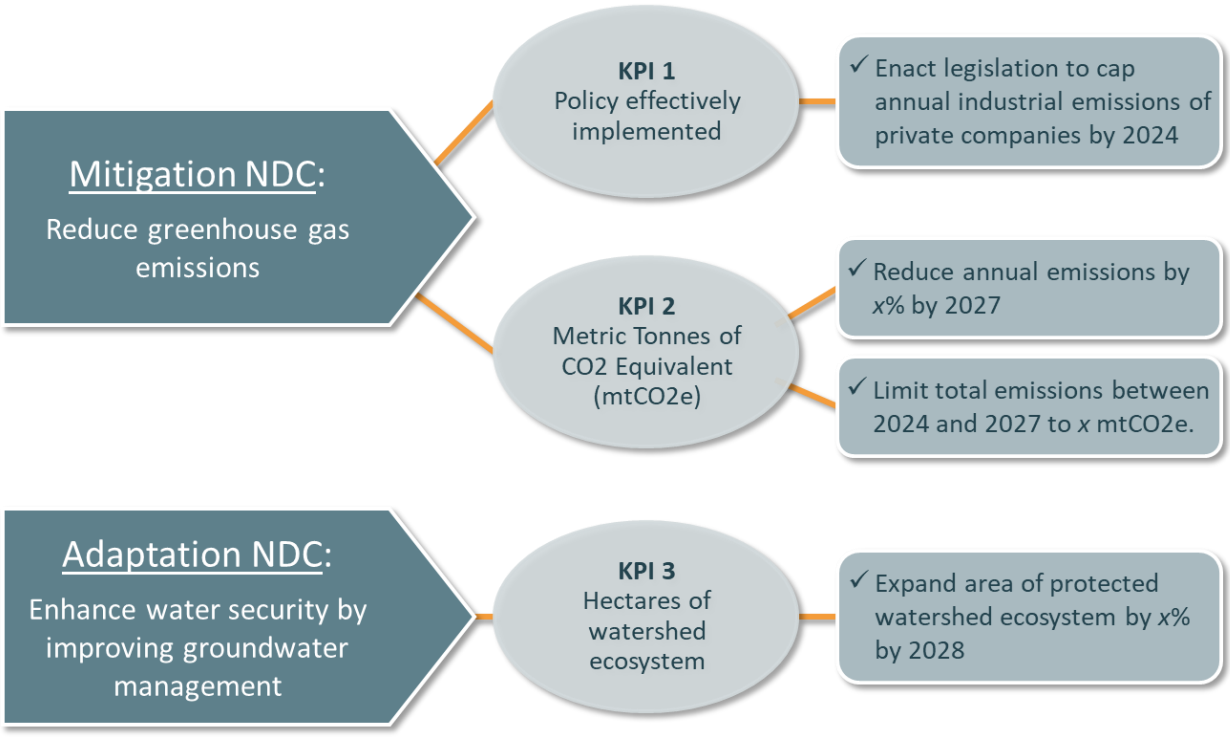
seem ambitious, yet achievable within the lifetime of the intended bond can then be chosen. These should include any relevant numerical thresholds and implementation timeframes (*see Figure 3*).

Importantly, the deadlines associated with each SPT should be devised with the intended bond structure in mind. For example, if a government wishes its SLB to incorporate a predetermined award or penalty to be paid at maturity, then the reference dates for the SPTs may arrive very shortly before that point. If, however, the bond is to use a coupon adjustment model, then the reference date will naturally need to be sufficiently earlier so that any changes to the repayment schedule have time to take meaningful effect. For example, a bond that uses a coupon-step up and matures in 2030 cannot incorporate an SPT that must be achieved by 2030, as the transaction will have few-to-no remaining coupon payments to adjust. While this may seem obvious from the point of view of transaction design, it is an important point to consider when selecting legally binding SPTs; if the Ministry of Finance has determined that a 10-year bond issuance with a coupon adjustment is the best course of action, then the Ministry of Environment would do well to propose climate targets that can reasonably be achieved within 7 years. An SLB program thereby warrants inter-ministerial cooperation from its inception.

Once the SPTs have been selected, it is possible to begin devising the KPIs. Although the KPIs are only the metrics used to measure progress towards the targets, they are highly significant in that they are the elements that measure success and thereby stand to affect the financial parameters of the bond (*see above under Mechanics of a Sustainability-Linked Bond*). As each KPI will warrant a separate evaluation by an independent auditor, their development requires certain considerations.

First, a single KPI may measure multiple SPTs as appropriate, but not vice versa. For example, as illustrated in Figure 3, GHG emissions can be measured in metric tonnes of carbon equivalent (mtCO2e) regardless of how the individual targets are designed, but multiple KPIs measuring the same target would confuse the issue and could provide conflicting measures of success.

Figure 3. Converting NDCs to SPTs via KPIs



Second, while it is possible for a single external auditor to provide monitoring services for multiple KPIs, as was the case for Uruguay's bond, it is important for an issuing government to keep in mind that different metrics require different fields of expertise and technological capabilities. Therefore, for an SLB structure that features a wide diversity of KPIs, a government may have to engage a number of different external auditors to track them. Depending on who those auditors are, this could potentially raise transaction costs. Although some international organizations may provide monitoring services to their member states free of charge, certain KPIs may require private specialist firms that specialize in a certain discipline, and these are sure to be fee-based. These engagements would be in addition to the initial SPO provider hired to appraise the bond framework; for this task Chile and Uruguay both contracted Sustainalytics – a private company that specializes in such appraisals and has additionally provided SPOs for many corporate issuances.

Further to the above point, it is prudent to avoid incorporating too many KPIs into the same bond issuance, regardless of how many auditors are required in order to track them. This is not just due to the logistical challenges of managing so many ambitious undertakings at once, but also because of how an abundance of promised achievements might affect external perceptions. Investors and donors alike may doubt that all of the SLB's goals are sufficiently ambitious beyond BAU. In contrast, they may view the endeavor as too ambitious beyond feasibility, which could result in an unfavorable SPO at issuance and thereby a lack of donor support for a potential credit enhancement.

Finally, it is also worth noting that it is possible for an SLB to incorporate policy-oriented SPTs in addition to long-term actionable ones. Although they may also contribute to the same NDC as other SPTs, these can often be much more easily achievable and, since they are technically measured differently, can provide governments with an early win through a separate KPI to help build momentum through the

SLB process. Figure 3 describes a simple act of legislation to cap private emissions, but these targets can also be more specific, such as devising a policy to limit gas flaring in the oil-producing GCC states, or even much more complex, such as developing a comprehensive domestic regulatory framework for capping and trading emissions credits. In the latter case, however, a longer timeframe will likely be needed in order to establish and verify a functional and robust market.

Figure 3 illustrates how a combination of the above-mentioned concepts may be applied within a single SLB. Appropriately ambitious in scope, the example bond seeks to address two generic targets that are commonly represented within the NDCs of UNESCWA member states. The first, in the category of climate mitigation, is reasonably straightforward as it commits to reducing GHG emissions. It employs two different KPIs to measure progress towards this goal across three SPTs. The first SPT is a simple policy measure aiming to regulate corporate emissions practices. The KPI that measures this may require a political analyst to evaluate its meaningful enforcement, but it should otherwise be achievable in the short term. The second and third SPT are also related to the same mitigation NDC, but they pertain to the country's overall success in reducing emissions and are measured scientifically by a single KPI. This format is similar to Chile's inaugural SLB, which also aims for both an annual limit and cumulative limit by a certain date. The second NDC targeted by this example SLB falls within the category of climate adaptation. It relates to water security and the sustainability of groundwater reservoirs, which are easily threatened by drought and desertification and are prominent issues within many UNESCWA countries, such as Jordan. As a countermeasure, the related SPT aims to provide meaningful protection for watershed ecosystems, which funnel rain and freshwater into critical aquifers but are often threatened by climate change and human activity. The area of protected watershed can be measured in hectares, but will also involve a qualitative element as to the quality of that protection (i.e. a protected area outlined on a map must be meaningfully conserved in practice as well in order for the KPI to be considered successful).

Although the example provided within Figure 3 outlines a hypothetical NDC-focused SLB, it is also possible to incorporate other national development goals within the same bond. It is even possible to measure countries' efforts towards the SDGs as trackable KPIs. As previously mentioned, some of the SDGs that require special investment from UNESCWA States given their level of challenge are SDGs 2 (Zero Hunger), 5 (Gender Equality), and 8 (Decent Work and Economic Growth). Other key SDGs are 6 (Clean Water and Sanitation), 7 (Clean Energy), 13 (Climate Action) and 15 (Life on Land). Table 3 below focuses on "Planet" SDGs 6, 7, 13, and 15, and presents some example KPIs that could be linked to Arab countries' Climate and Nature Goals.

Table 3: Measuring SDG Progress using Trackable KPIs

For SDG 6, key KPIs are, in order of importance based on the number of countries encountering challenges to implement them:
Degree of integrated water resources management implementation (%): 12 countries face major or significant challenges, including Lebanon, Iraq and Bahrain
Anthropogenic wastewater that receives treatment (%)
Freshwater withdrawal (% of available freshwater resources)
Scarce water consumption embodied in imports (m3 H2O eq/capita)
Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (per 100,000 population)
For SDG 7, key KPIs to track are:
CO2 emissions from fuel combustion per total electricity output (MtCO2/TWh): no UNESCWA country has achieved this indicator
Renewable electricity output (% of total electricity output): no country has achieved this indicator
Energy intensity (total energy supply by GDP (PPP) (GJ thousand 2015 USD)
Relevant KPIs for SDG 13 are:
CO2 emissions from fossil fuel combustion and cement production (tCO2/capita): 10 countries face significant or major challenges, such as the UAE, Oman, Lebanon, and Qatar
People affected by climate-related disasters (per 100,000 population, 5 year average): over half of UNESCWA members face major or significant challenges for this indicator, or do not have available data
For SDG 15, the most important KPI is the Mean area that is protected in terrestrial sites important to biodiversity (%), which has only been achieved by Morocco and Kuwait.[34]

Determining Eligibility for a Sustainability-Linked Bond Issuance

An SLB is a powerful tool that can be highly effective at mobilizing large amounts of private financing for a coordinated approach to tackling a nation's climate and nature goals. It is not, however, sweepingly applicable to every country, and some may find that a completely different sort of financing instrument is more suited to their needs.

The ability of a government to issue a sovereign SLB is mainly contingent on three key features: its ability to access international capital markets, debt sustainability, and institutional capacity.

[34] Moustafa Bayoumi, and others, 2022.

Market Access

Like any sovereign bond issuance, an SLB fundamentally requires that a government be able to issue external commercial bond debt in the first place. This means that it must have a sovereign credit rating, as well as the interest of international investors and a good relationship with a commercial bank that is willing and able to underwrite the issuance.

For sovereigns with a high enough credit rating, the first step to preparing for an SLB issuance is to begin scoping out the market landscape to gauge investor interest. In order to attract investors for an SLB issuance, a Sovereign should start by communicating its sustainability strategy, goals, and targets to potential investors. It should clearly explain the link between the intended KPIs and its own sustainability goals, providing concrete and transparent information.

This strategy may, however, not suffice for some Low-to-Medium Income Countries (LMICs), since many institutional investors cannot invest in instruments below investment grade unless they have a certain level of guarantee. Therefore, **credit enhancement tools** and **grant-funded technical assistance** can play a critical role in enabling and scaling the issuance of KPI-linked sovereign debt.

Credit enhancements, such as guarantees, are external tools usually offered by multilateral development banks (MDBs) to enhance the creditworthiness of sovereigns (*see above under Economic Advantages of a KPI-Linked Debt Structure*). They lower the risk and borrowing costs of the issuer and attract more institutional capital. They are **especially important for sovereigns whose credit ratings are well below investment grade**. Because these countries have no or limited market access, only credit enhancements could allow them to access the global market and mobilize private funds at an impactful scale. This could also be true for a country that has previously had market access but has since lost it due to a deterioration in the sustainability of its debt.

Guarantees allow debt issuers to attract diverse investors (beyond development financing), have access to larger and more affordable commercial funds. Aside from lowering the cost of borrowing for low-rated issuers, a guarantee may also assist a potential debut issuer with entering the market for the first time.

The most common types of guarantees are "Partial Credit Guarantees (PCG) and Partial Risk (also known as Political Risk) Guarantees (PRGs)".[35] PCGs mitigate risks related to a borrower's inability to meet debt service obligations. For Sovereigns, particularly LMICs, these guarantees are usually issued by a multilateral development bank (MDB) such as the African Development Bank (AfDB), the Asian Development Bank (ADB), or the World Bank (IBRD). PCGs generally offer concessional pricing with long tenors (often 20, and up to 35 years from the World Bank).

All member countries are generally eligible for a PCG. The guaranteed percentage is often set at the lowest level needed to attract financing. MDBs usually price PCGs for sovereign issuances with a "sovereign loan equivalent-based rate plus a front-end fee, and a commitment fee. Loan pricing typically consists of base rate + funding margin + lending spread + maturity premium".[36]

PRGs protect the lenders from a default due to the failure of a government to fulfill specific obligations due to government risks such as change of laws and regulations, expropriation, war and civil

[35] Lisa Willems and Tenke Zoltani, 2022.

[36] *Ibid*.

disturbance. The best-known providers of such guarantee in the public sector are the US DFC and Multilateral Investment Guarantee Agency (MIGA).

PCGs and PRGs from MDBs can also be utilized in conjunction with other de-risking tools from other DFIs, NGOs or private insurers.

DFIs or private insurers offering guarantees can also use reinsurance to leverage their capacity and manage the risk profile of their portfolio.

Most MDBs have participated in sustainable bond issuances. The IADB is probably the most advanced, since it structures KPI-linked products and is uniquely positioned to play multiple roles, including **structuring** the transaction, **providing a credit enhancement, investing**, and **providing technical assistance** to help the KPI-linked targets. The Global Environment Facility (GEF) is one of the best-known institutions for **providing full and partial credit guarantees** for environment-focused outcomes. Additionally, institutions like **the United Nations (UN)** have a strong ability to provide **grant-funded technical assistance** for SLB structuring, **impact measurement and monitoring**. This has been the case for Pakistan's Nature Performance Bond –the first of its kind– which was temporarily halted but has laid the groundwork for other issuances.[37] The UNDP specifically is currently the UN's biggest provider of country assistance for climate change, with around US$3 billion in funding provided to projects across most countries, including major initiatives in the Middle East and North Africa (MENA). UNDP cooperation is supporting capacity-building to integrate climate resilience actions into development policy, set up improved Early Warning Systems (EWS) and climate monitoring systems, guarantee access to climate finance, and help innovation in climate finance such as via parametric (weather-indexed) insurance.[38]

Debt Sustainability

While market access is based on the willingness of international investors to lend money to a sovereign, debt sustainability is a measure of a sovereign's ability to continue servicing its debt obligations throughout the foreseeable future. Although there is no definitive methodology for assessing this, the IMF/World Bank debt sustainability framework (DSF) is the most commonly accepted means of doing so. In accordance with this framework, IMF Article IV assessments and program reviews will frequently contain a debt sustainability analysis (DSA) of the country to which the document pertains. While debt sustainability certainly advises a country's ability to access international capital markets, it should still be treated as a distinct indicator of a sovereign's financial health.

This is because debt sustainability is not always indicative of a country's ability to place international bonds. For example, some smaller economies may lack serious balance-of-payments issues, yet the issuance of large foreign-currency-denominated bonds may still be beyond their capacity, particularly if they have never had market access in the past. Likewise, a country may be considered to have sustainable sovereign debt under current market conditions but may still face a high risk of debt distress given its specific vulnerabilities and the likelihood of financial shocks. In such cases, the undertaking of new external debt obligations may be very imprudent, if not impossible.

Conversely, other countries may continue to tap private capital markets despite periodically defaulting on bond debt, with some series having been restructured multiple times with the same or a similar bondholder committee. This may be done in an attempt to refinance expensive and unsustainable debt,

[37] *Ibid*.

[38] United Nations Development Programme, 2018.

though it may merely postpone a fiscal crisis rather than negating it. In such cases, high bond yields and market familiarity with the sovereign issuer continue to entice international investors, thereby allowing a country to retain market access in the face of high risks to debt sustainability. In fact, the IMF and World Bank use separate DSFs to evaluate market access countries and lower-income countries without market access, known respectively as the MAC DSF and the LIC DSF. While they may not struggle with many of the financing issues that low-income countries do, sovereigns evaluated under the MAC DSF are still susceptible to unsustainable debt.

Additionally, countries undergoing an IMF program should generally refrain from issuing new non-concessional debt, as it could invalidate the process and disqualify them from receiving future program disbursements. New non-concessional borrowing through private capital markets in the face of precarious debt sustainability may also preclude any new concessional lending through multilateral and regional development banks. Even in the absence of such barriers, a country that is particularly vulnerable to economic shocks, perhaps through a heavy dependence on one especially volatile commodity or resource, may be at higher risk of debt distress despite having a sustainable debt burden at current levels. In such scenarios, it could be inadvisable to return to markets with a new debt issuance, even an SLB, regardless of potential investor uptake. A credit enhancement could make this more feasible as a means of refinancing old debt, but such a situation would need to be evaluated very carefully, especially given the incredible effort and resource allocation that an SLB would demand. An SLB should always be issued with an eagerness to achieve the linked SPTs, not solely as a means of refinancing existing debt at a lower rate, since failing KPIs could very quickly lead to a country being worse off, additionally making it more difficult to issue an SLB in the future.

Institutional Capacity

Finally, for a country to be eligible for a KPI-linked bond issuance, it needs to have highly functional institutions and strong enough governance to ensure that it can effectively implement the required measures for meeting its SPTs. As previously mentioned, an SLB program is a huge undertaking that will involve high levels of coordination among different ministries. This includes local government entities and also civil society, who will likely play a role in the implementation of key initiatives. The country should also have a robust monitoring and reporting framework so as to constantly track its own progress towards SPTs and stay ahead of official SPOs. This requires establishing data collection processes, setting reporting frequency standards, and ensuring the accuracy and transparency of disclosures.

This can be costly and might necessitate additional funds for LMICs, ideally in the form of grants from bilateral partners or multilateral institutions. Depending on a country's individual capabilities, it may also require some degree of technology transfer, not only for the measurement and monitoring of certain KPIs, but possibly also for the implementation of some initiatives with particularly intensive requirements.

In some aspects of these needs, UNESCWA may be able to help through capacity building initiatives. Moreover, its ability to act as a convener of international actors and disseminate information quickly should allow it to assist member countries with their communication strategy in this regard, building connections and ensuring that countries receive the best possible assistance from the right partners (*see below under Policy Recommendations for UNESCWA for Assisting and Preparing Member States*). It is important to remember, however, that capacity building and external partnerships for technical assistance are meant as aides, and the bulk of the undertaking must be a national initiative executed by the country itself. For this to be successful, a core level of institutional capacity is absolutely necessary, though this should only improve over time as the country begins to successfully coordinate ambitious projects.

IV. CASE STUDIES FOR POTENTIAL SUSTAINABILITY-LINKED BOND ISSUANCE

The following section aims to present two ESCWA countries eligible to issue Sustainability-linked bonds (as per the requirements presented in Section III.), Jordan and Oman. It also provides examples of SLB issuances (including their characteristics and transaction mechanisms) tailored to these two countries.

Jordan

The Hashemite Kingdom of Jordan has seen notable economic and social advancements over the past decade and beyond. However, the road to development is still long. In 2015, Jordan published its National Vision **"Jordan 2025"**, which presented a framework for economic and social policies. The Vision focuses on 11 SDGs, namely zero hunger (2), good health and wellbeing (3), clean water and sanitation (6), affordable and clean energy (7), industry, innovation and infrastructure (9), sustainable cities and communities (11), and peace, justice and strong institutions (16).[39,40] Since, Jordan has published an NDC and other national strategies to strengthen its economy and society and improve climate change mitigation and resilience.

Economic Background and Debt Profile

Economic situation and Debt sustainability

Jordan started recovering from the Covid-19 crisis in 2021 and has experienced improved economic and fiscal performance. Real GDP is expected to have grown by 2.7% in 2022 thanks to a post-pandemic recovery and positive spillovers from the Gulf Cooperation Council (GCC) countries. Moreover, the Central Government's **primary deficit** (excluding grants) decreased in 2022, reaching 3.7% of GDP. This performance was supported by reforms to limit tax evasion and avoidance as well as the elimination of untargeted and costly food and fuel subsidies, except for the most vulnerable.

Furthermore, Jordan's public debt[41] has been gradually increasing over the years, reaching 90% at end-2022. Jordan is committed to decreasing it to 80% by 2028[42] *(see Figure 4)*. External debt represents about half of overall debt, of which nearly half consists of bonds and around 30% is multilateral non-concessional debt *(see Figure 5)*. The World Bank-IBRD represents about 70% of the latter category (c.US$3.6bn). Additionally, Jordan has received up to US $1.7 billion in disbursements from the International Monetary Fund (IMF) under the Extended Fund Facility (EFF) since 2020.[43]

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[39] NDC Partnership. "Jordan – Country Overview".

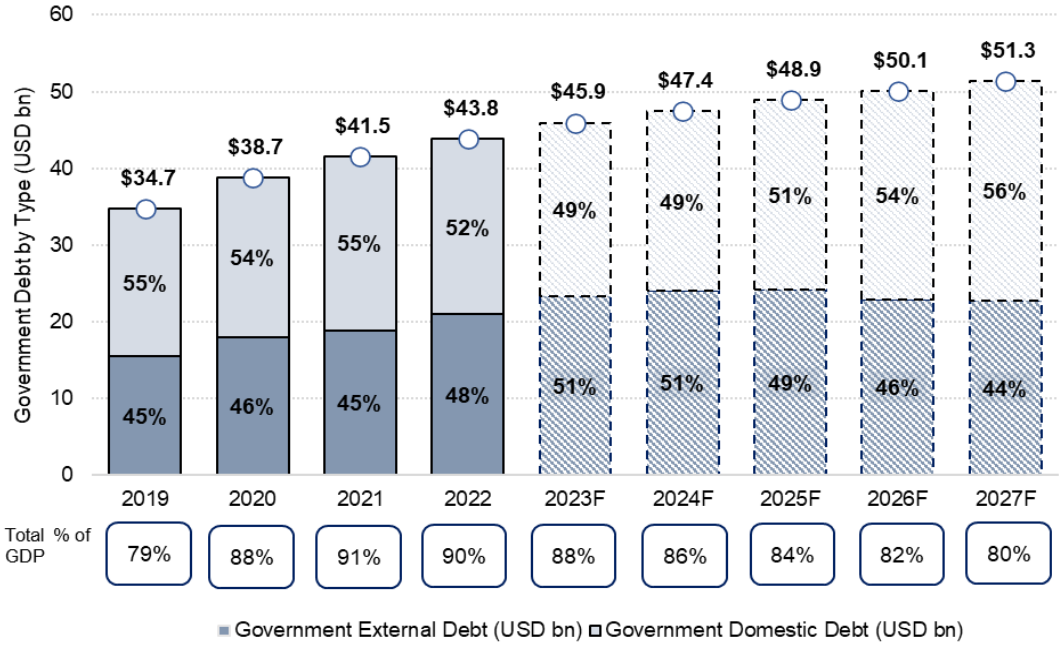
[40] Jordan. "Jordan 2025, A National Vision and Strategy". 2014. Available at: https://www.greenpolicyplatform.org/sites/default/files/downloads/policy-database/JORDAN)%20Jordan%202025%20Part%20I.pdf.

[41] Government and guaranteed gross debt, net of SSC's holdings

[42] International Monetary Fund. 2022c.

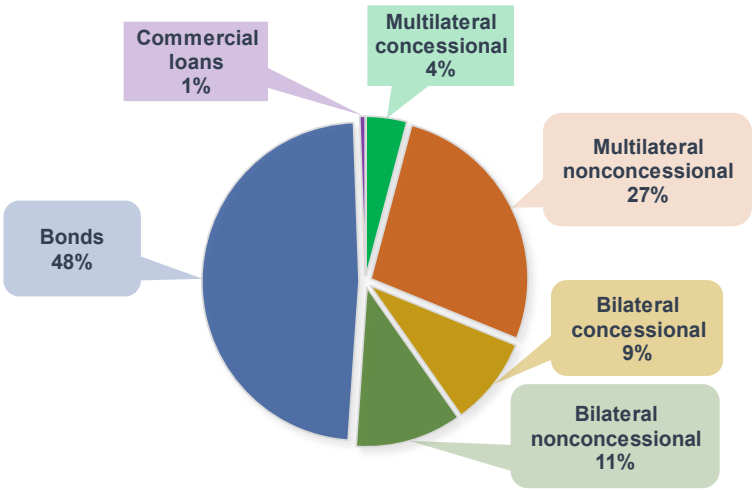
[43] *Ibid*.

Figure 4. Nominal gross public debt evolution by type



Source: IMF Country Report No.20/80 (May 2020), IMF Country Report No.23/49 (January 2023)

Figure 5. GG External debt breakdown by creditor type in 2021 (USD 18.9 Billion)



Source: World Bank, International Debt Statistics

Finally, Jordan's outlook is positive in the near-term.[44] The planned acceleration of structural reforms to decrease the cost of doing business, enhance public services and increase women and youth employment would enable a more dynamic private sector. Economic recovery is expected to continue, with real GDP growth projected at 3% in the medium-term. The government's fiscal consolidation is also

[44] *Ibid.*

expected to continue, allowing it to **improve debt sustainability.**[45] There is some uncertainty in the medium-term, given high oil and food prices, a slowing global economy and climate change risks.[46] However, the IMF expects Jordanian authorities to **maintain debt sustainability** and still respect their program objectives, given their **commitment and their ability to attract development partners**. It also adds that increased **donor support will be key** to support Jordan's reform plan and meet its higher external financing needs. It would also ease the cost of hosting over one million Syrian refugees.[47]

Market access

Given its fiscal stability and debt sustainability, Jordan still has market access. In fact, the country issued oversubscribed Eurobonds of US$650 million and US$1.25 billion in June 2022 and April 2023, respectively. Moody's changed its outlook to positive and confirmed the B1 rating in November 2022. Additionally, one of its outstanding Eurobonds is trading at a premium, and all the others but one are trading at over 90 cents to the dollar, which also shows **Jordanian bonds' attractiveness** vis-à-vis international investors *(see Table 4)*.

Moreover, Jordan has been receiving other kinds of financing. For instance, it issued a US$500 million syndicated loan in September 2022,[48] and has still been receiving grants, with US$1.45 billion per year (a mark-up of c.US$200 million) over 7 years from the United States, and a US$333 million long-term concessional loan from the United Arab Emirates.[49]

Table 4. Outstanding Jordanian CG Eurobonds as of June 19th, 2023[50]

#	Issue Date	Maturity Date	Tenor (in yrs.)	Amount Outstanding (US$ mil)	Issued Amount (US$ mil)	Coupon (in %)	Yield (in %)	Last Price
1	30-Jun-15	30-Jun-25	2	500	500	3.000	5.516	95.2
2	7-Jul-20	7-Jul-25	2.1	500	500	4.950	6.743	96.6
3	10-Nov-15	29-Jan-26	2.6	1,000	1,000	6.125	7.136	97.6
4	1-Nov-16	31-Jan-27	3.6	1,000	1,000	5.750	7.144	95.6
5	15-Jun-22	15-Jan-28	4.6	650	650	7.750	7.388	101.4
6	13-Apr-23	13-Jan-29	5.6	1,250	1,250	7.500	7.569	99.6
7	7-Jul-20	7-Jul-30	7.1	1,250	1,250	5.850	7.518	91.0
8	10-Oct-17	10-Oct-47	24.3	1,000	1,000	7.375	8.762	86.1
			Total	**7,150**	**7,150**			

Source: Refinitiv Eikon

Finally, Jordan's yield curve indicates high investor trust in its capabilities to service its Eurobonds in the near term while spreads over the medium term have been lower compared to Emerging Market peers *(see Figure 6)*.

Figure 6. Jordanian Eurobonds Yield Curve (as of June 19th, 2023)

[45] *Ibid.*

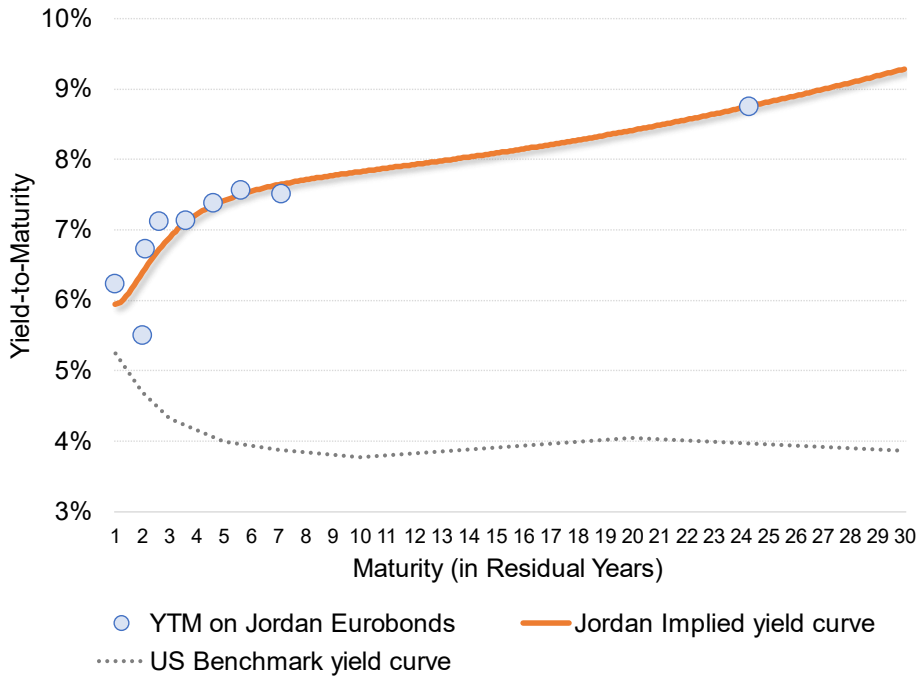
[46] *Ibid.*

[47] International Monetary Fund, 2022a.

[48] International Monetary Fund, 2022c.

[49] *Ibid.*

[50] Refinitiv. Data Platform.



Source: Refinitiv Eikon

Current SDG Situation

National Circumstances and Events

Jordan is strategically situated in Western Asia between Asia, Africa and Europe. It has an area of 89,318 km^2, most of which is land (with 75% taken up by desert), with a coastline of 27 km. The climate is predominantly arid desert with a rainy season from November to April.[51]

Demographically, the country has over 10 million inhabitants, concentrated in urban areas (90% of the population), with more than 70% under the age of thirty. In 2015, it hosted over one million Syrians, of which only half were registered with the United Nations High Commissioner for Refugees. Jordanian authorities still host the refugees to this day, with a cost of around US$1.4 billion per year, not to mention increased pressure on natural resources, namely water.[52]

The main challenges for sustainable development in the country are related to the **water, energy, agriculture, and transport sectors**. The main issues include significant land degradation, water scarcity, and pollution. In fact, most of Jordan's lands suffer from degradation. Around 41% of total land is considered degraded, mainly due to deforestation, overgrazing, and soil erosion. This is mainly related to the high population growth (c.2% per year)[53] and unsustainable land management (due to poor access to technology and capital), as well as natural processes like erratic rainfall and drought exacerbate the problem.[54] Agricultural lands are also affected by salinization and alkalinization. In addition, Jordan's natural resources are limited: only about 2% of the land is arable, and only 35% of the renewable water base (around 780 million m3) is groundwater while the rest comes from surface water sources. However,

[51] Jordan, Ministry of Environment, 2014.

[52] Jordan, Ministry of Environment, 2021.

[53] World Bank, 2022.

[54] Jordan, Ministry of Environment, 2018.

rainfall has been decreasing, while mean annual temperatures are increasing, which will further exacerbate water scarcity.[55] Hence, climate change adds to Jordan's existing challenges related to resource scarcity and human-made degradation. Projected impacts of climate change on Jordan include: significant temperature increases of 1-2°C in 2030-2050; increased incidents of drought; shrinkage of grasslands (currently 10% of area); and shift of semi-arid land to arid desert.[56]

Finally, Jordan hosts over 4,000 species of land, freshwater, and marine fauna and flora. However, its biodiversity also encounters many threats, including ongoing habitat destruction due to uncontrolled urban expansion, mass tourism (which contributes greatly to the economy), and climate change. The underlying causes include a lack of public awareness, weak governance, and limited financing for biodiversity programs. In 2014, protected areas in Jordan covered 1,443.5 km^2, i.e. 1.5% of total area. This is modest compared to global targets of 17% and 10% for land and marine areas respectively as per Aichti Target 11.[57]

Recent actions

Jordan has taken several strategic actions to contribute to climate change mitigation and adaptation.

In 2014, Jordan's climate action was illustrated by the creation of the "Directorate of Climate Change" within the Ministry of Environment, with adaptation and mitigation departments. The Ministry of Environment has been responsible for guaranteeing the fulfillment of Jordan's commitments to the United Nations Framework Convention on Climate Change (UNFCCC) secretariat[58]. Jordan's latest UNFCCC commitments have been the Second Biennial Update Report (BUR), submitted in 2021, and the updated NDC published in 2021. The adaptation strategy of the latest NDC is linked to the recent National Adaptation Plan (NAP).[59]

In 2022, it published its Climate Change Policy (CCP) during 2022-2050, which outlines the vision towards climate change and the institutional framework and implemented plans to mitigate and adapt to it. The document presents Jordan's vision to become a resilient low-carbon nation, and provides strategic orientations for all sectors to integrate climate change in long-term plans, which in turn will serve to update the NDCs. The proposed policies contribute to climate change mitigation, climate change adaptation, and Sustainable development by promoting inclusive and sustainable growth and improving the quality of life of individuals. The CCP is in line with national policies and sectoral strategies, including the recent Economic Modernization Vision,[60] and the international requirements of the Paris Agreement that will operationalize the UNFCCC until 2030.

Additionally, Jordan is a signatory of the United Nations Convention to Combat Desertification (UNCCD). In 2016, it committed to determine voluntary Land Degradation Neutrality (LDN) targets to be achieved by 2030 to combat land degradation.[61]

Jordan linked its targets to the SDGs through the LDN process. The latter also improved collaboration and coordination among public and private stakeholders and engaged various ministries and authorities

[55] Jordan, Ministry of Environment, 2021.

[56] Jordan, Ministry of Environment, 2014.

[57] *Ibid*.

[58] Jordan, Ministry of Environment and United Nations Development Programme, 2022.

[59] Jordan, Ministry of Environment, 2021.

[60] Jordan, Ministry of Environment and United Nations Development Programme, 2022.

[61] Jordan, Ministry of Environment, 2018.

in planning and target-setting which will help institutionalization and activities implementation. For instance, it allowed the Ministry of Environment to prioritize funding needs and to approach international organizations for sustainable land management financing and to include activities to their work plan to receive national budget funding.[62]

Finally, Jordan published a second National Biodiversity Strategy (NBSAP) in 2014 (after 2003) for biodiversity conservation in 2015-20. Aligned with recent concepts and scientific advances, it aims to mainstream the Aichi Targets (2010) that have to be reached by 2020, as part of the Convention on Biological Diversity (CBD). The document's goal is to address the causes of biodiversity loss, emphasizing the issues of governance as a key requirement for a successful NBSAP implementation and presenting the required legal and institutional frameworks.[63]

Climate mitigation

Although Jordan's GHG emissions are around 31 mtCO2eq per year (2016), which is less than 0.1% of global emissions, it remains seriously committed to mitigation actions. Jordan's updated NDC published in 2021 increased the GHG reduction target from 14% to 31% compared to BAU by 2030.[64]

The Energy sector represented 76% of total national emissions, with Energy industries representing 37% of these emissions, and Transport 38%. The next biggest emitters were the Waste (12%) and the Industrial processes (10%) sectors. Agriculture, Forestry, and Other Land Use (AFOLU) represented only 1%.[65] Energy is Jordan's key driver of economic development, serving to pump water throughout the country and to operate the industry and transportation, among other key activities. Jordan currently imports over 90% of its energy, which represents around 8% of GDP.

The government recently published the National Energy Sector Strategy (2020-2030), with the goal **to increase self-sufficiency and sustainability** through renewable energy investments, energy consumption reduction with increased energy efficiency, and partnership development for electric interconnection with some neighboring countries.[66] It estimates energy efficiency improvements to reduce the water sector's energy consumption by 15% by 2025, and all other sectors by 9%. The strategy also includes energy mix diversification. It promotes the use of natural gas in the Industrial sector as an alternative cheaper fuel to decrease production costs and improve competitiveness. It also targets a renewable energy share of 35% by 2030, up from 21% in 2020, supported by economic incentives and a new legal framework encouraging investments. There is major growth potential for renewable energy, and it ought to be linked to a deep reform in the structural operations of the energy sector for more decarbonization.[67] Finally, the 'transport and logistics' sector is important for Jordan's economy, representing over 8% of GDP (2017). It is the second emitter of GHGs, accounting for 28% of the total emissions in 2016. The new strategy for the sector is expected to be based on modernization, implementing intelligent transport systems, the Bus Rabid Transit (BRT), the railway project, and promoting the investment environment. Jordan has adopted measures to encourage the adoption of electric vehicles, with efforts to expand the electrical vehicles charging infrastructure.[68]

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[62] *Ibid*.

[63] Jordan, Ministry of Environment, 2014.

[64] Jordan, Ministry of Environment and United Nations Development Programme, 2022.

[65] Jordan, Ministry of Environment and United Nations Development Programme, 2020.

[66] Jordan, Ministry of Environment, 2021.

[67] *Ibid*.

[68] *Ibid*.

Climate adaptation

Jordan has developed various policies and actions to reduce vulnerability and increase resilience to the effects of climate change. The central themes are water, agriculture, 'ecosystems and biodiversity', and health.

Jordan's National Water Strategy (2016-25) includes actions to address climate change, the water-energy-food nexus, groundwater overexploitation, new technologies adoption, and treated wastewater reutilization, and encourages consolidation and privatization of wastewater services. The strategy is aligned with the SDGs and National Vision 2025. As part of the efforts to alleviate water scarcity, the government is planning the Amman Aqaba Water Desalination and Conveyance Project (AAWDCP), the largest water generation scheme to be implemented in Jordan. The project's main goal is to provide a reliable freshwater supply for the Amman area. It will include a conveyance system to continuously supply up to 150 million cubic meters of water.

Jordan also developed a National Strategy for Agricultural Development (2016-2025). The main objective is a sustainable management of agricultural resources that will ensure greater food security, preserve the country's biodiversity and increase exports. At the same time, the recent National Food Security Strategy aims to have more resilient and sustainable Agri-food systems. The goals include assisting Jordan to play a key role in food security in the region, to coordinate actions related to food security and to limit loss and waste. The Strategy aims to contribute to the SDG to achieve zero hunger.[69]

As previously mentioned, Jordan published in 2014 a NBSAP to address biodiversity conservation. To achieve its vision, five 2020 strategic goals were selected, including governance improvement, human-induced pressures decrease, priority ecosystems protection, national awareness of ecosystem benefits enhancement, and knowledge management and monitoring. The various stakeholders will be working under the guidance of the National Biodiversity Committee, serving as the executive arm of the Ministry of Environment.[70]

Moreover, the key measures considered for land degradation neutrality relate to Sustainable Agricultural Management, enhanced water management, Sustainable Forest and Woodland Management, Sustainable Range and Pasture Management, Integrated Watershed Management, and Alternative Livelihood.[71]

Finally, social considerations are also part of Jordan's adaptation strategy. In fact, the Kingdom assessed the potential impacts of climate change on different social categories (women and youth) and how to adapt to them.[72]

UN SDG performance overview

Jordan adopted the 2030 Agenda and established an SDG implementation roadmap, integrating the SDGs into national planning and monitoring. The **National Higher Committee for Sustainable**

[69] *Ibid*.

[70] Jordan, Ministry of Environment, 2014.

[71] Jordan, Ministry of Environment, 2018.

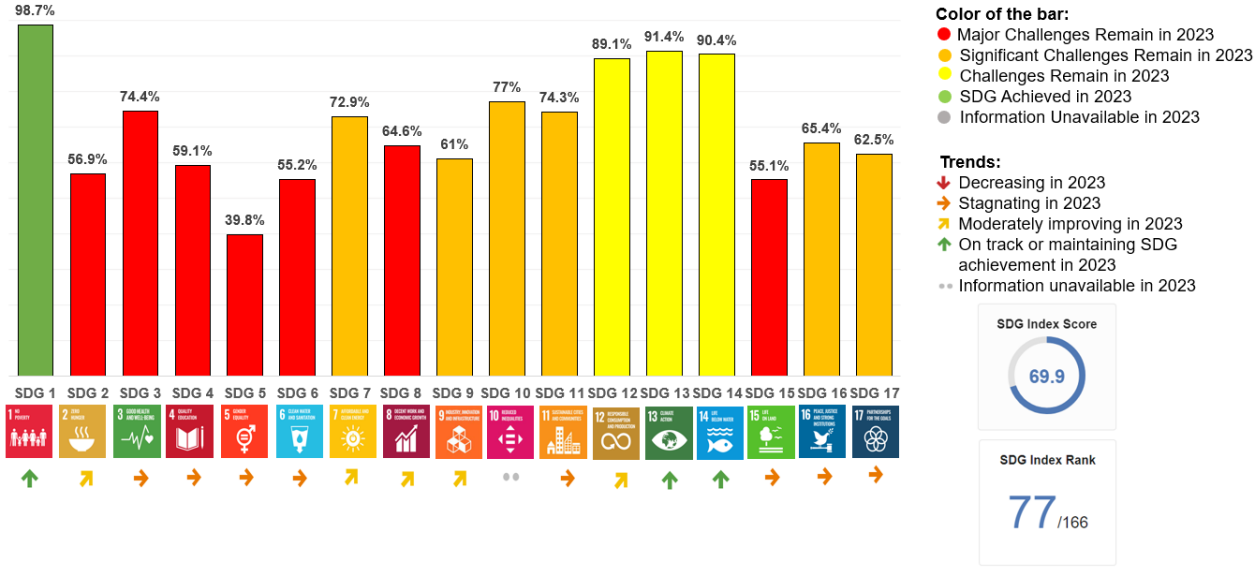
[72] Jordan, Ministry of Environment and United Nations Development Programme, 2022.

Development is responsible for giving guidance and following up on the decisions and recommendations related to 2030 Agenda.[73]

In 2022, Jordan had the highest SDG Index score among Western Asian countries,[74] standing at 69.9 in June 2023. Jordan's forte is SDG 1 (no poverty), as poverty reduction has long been included in national strategies. Significant improvements were noted in environmental SDGs 13 and 14. While Climate Action (SDG 13) was Oman's lowest scored SDG, it is Jordan's second best scored, at 91.4.

Unsurprisingly, **the lowest scored** SDGs are **5 (gender equality)** at 39.8, **15 (life on land)**, **6 (clean water)**, and **2 (zero hunger)**, all of which face implementation challenges with stagnant performances *(see Figure 7)*. Gender equality is a widespread issue across the region, with female employment in Jordan at 15%. SDGs 15, 6 and 2 are linked to the previously mentioned issues of water scarcity and land degradation, exacerbated by climate change.

Figure 7. Jordan's SDG Performance in 2023



Source: SDG Index

Sustainability-Linked Bond Transaction Opportunities

Advantages of a KPI-Linked Debt Structure for Jordan

Jordan, like other developing nations, lacks adequate and sustainable financing for its NDCs and sustainable development agenda. For instance, the level of government investment on biodiversity was

[73] Jordan, Ministry of Environment, 2021.

[74] Moustafa Bayoumi, and others, 2022.

less than 0.05% of GDP in 2013.[75] Total government expenditure on environmental protection was less than 0.02% of GDP in 2020.[76]

The Jordanian government is currently focusing on strengthening the links between planning, budgeting, and financing for climate projects, which could positively impact and accelerate progress in many other SDGs.[77] The successful implementation of Jordan's climate strategy relies on the adoption of a clear financing framework and mobilizing innovative sources of funding in cooperation with international partners. It also requires private sector participation through solutions and financing.[78]

Given Jordan's debt sustainability, market access, and new institutional capacity to address NDCs and SDGs, it has the requirements (presented above) to issue an SLB. SLBs could be a solution for Jordan to access large, quick and potentially affordable external financing. It would give the government the flexibility to allocate proceeds to national priorities, all while driving it to achieve NDC, LDN and SDG-related SPTs.

Transaction examples

Looking at Jordan's NDCs and other national strategies may give us ideas for how a potential SLB issuance could look like. We may consider key mitigation and adaptation goals from Jordan's NDCs, as well as key targets from its LDN:

- **Mitigation NDC 1: Transition to a low carbon economy – renewable energy share in energy mix**
  - KPI 1: electricity generated from renewable energy sources (%)
    - SPT 1: reach 35% of electricity from renewable energy sources by 2030, compared to 13% in 2019
    - SPT 2: reach x tonnes of carbon emissions avoided by 2030, compared to 1.5 million tonnes in 2018[79]

- **Mitigation NDC 1: Transition to a low carbon economy – energy efficiency**
  - KPI 1: energy consumption (kWh)
    - SPT 1: reduce energy consumption in the water sector by 15% by 2025 compared to 2018
    - SPT 2: reduce energy consumption of all other sectors by 9% by 2030 compared to 2018
  - KPI 2: Carbon emissions (mt CO2e)
    - SPT1: reduce carbon emissions by 10% by 2030

- **Adaptation NDC 2: Strengthen adaptation in the water sector – waste water**
  - KPI 1: Coverage of wastewater service (%)
    - SPT 1: increase by x% the coverage of wastewater service by 2030 from 2020 levels
  - KPI 2: Treated wastewater reused (%)
    - SPT 1: reach x% of treated wastewater reused by 2030
  - KPI 4: anthropogenic wastewater that receives treatment (%)

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[75] Jordan, Ministry of Environment, 2014.

[76] International Monetary Fund, Climate Change Indicators Dashboard, 2022.

[77] Jordan, Ministry of Environment, 2021.

[78] *Ibid*.

[79] *Ibid*.

        - SPT 1: reach x% of anthropogenic wastewater that receives treatment by 2030
    - KPI 3: Additional capacity built to collect and treat wastewater (m3/day)
        - SPT 2: Increase treatment capacity by x m3/day (flow rate) by 2023; Example: the European Commission is co-financing with an additional grant of EUR c.15m the construction of a Waste Water treatment plant in Balqa', to be built by 2023

- **LDN Target 1: Restore forest and woodland habitat lost**
    - KPI 1: forest and woodland habitat restored (% of total area lost between 1990 and 2005)
        - SPT 1: by 2030, ensure the restoration of 3.0% of its forest and woodland habitat lost between 1990 and 2005[80]
    - KPI 2: Permanent deforestation (% of forest area, 3-year average)
        - SPT 1: limit permanently deforested area at x% of total area by 2030
    - KPI 3: Mean area protected in terrestrial sites important to biodiversity (%)
        - SPT 1: reach x% of mean protected area by 2030, compared to 1.5% in 2014

- **LDN Target 3: Improve the productivity of the rangeland reserve areas**
    - KPI 1: biomass available: total weight of plant material per unit area (kg/ha)
        - SPT 1: Improve the productivity by at least 10% of 100,000 ha by 2030 by controlling overgrazing and better managing rangeland.[81]

Additionally, because SLBs are versatile, they may include SPTs addressing economic or social themes. For instance, given Jordan's SDG Index scores, we may consider **SDG 2 for Zero Hunger, which could be based on the following NDCs and KPIs:**

- **NDC 2.3: Improve agricultural productivity and incomes of small-scale food producers**
    - KPI 1: Cereal yield (tonnes per hectare of harvested land)
        - SPT 1: reach a cereal yield of x tonnes per hectare by 2030
    - KPI 2: Sustainable Nitrogen Management Index (best 0–1.41 worst)
        - SPT 1: Decrease the SNM Index from 0.99 in 2018 to x in 2025 and y in 2030
- **NDC 2.a: Increase investment, including through international cooperation, in rural infrastructure and technology development among others[82]**
    - KPI 1: invest x million JOD in rural infrastructure and technology development yearly until 2030

Regarding the bond's variable characteristics, we may consider both (i) a financial reward if an SPT is overachieved and (ii) a coupon step-up if an SPT is missed:

(i) The reward could come from a donor such as an MDB, as Jordan often partners with or receives funds from such institutions (e.g. c.31% of external debt stock in 2021) *(see Figure 5)*, partly because it faces the challenge of hosting over one million refugees. Other donors could be Jordan's bilateral concessional debt creditors such as Japan or Kuwait.

(ii) The coupon step-up would help attract more sustainability-focused investors, as they would hedge against green default.

[80] Jordan, Ministry of Environment, 2018.

[81] *Ibid*.

[82] NDC Partnership. "Jordan – Country Overview".

Readiness requirements

SLBs could constitute cheaper debt instruments for Jordan if it seriously commits and succeeds in achieving its pre-defined sustainability targets. To this end, it should make sure to have all the necessary institutions, frameworks, and technology to successfully issue an SLB.

Jordan has already **expressed its commitment** to climate action via its national strategies and the signing of international climate agreements. However, it could still add specific KPI targets for its adaptation NDCs and make sure the NDC is harmonized with national strategy documents.

A first step for an SLB issuance would be for **national stakeholders to come together** to identify priorities and discuss the potential characteristics of the instrument, including identifying KPIs that are both relevant and with sufficient data. A successful SLB transaction would require a **strong and fluid cooperation between the various national stakeholders**, such as the Ministries of Environment (and perhaps specifically the Directorate of Climate Change), Agriculture, Water and Irrigation, and Finance as well as the Debt Management Office.

Another key step would be for Jordan **to cooperate with international public and private sector partners**, – such as multilateral institutions or specialized Sovereign advisory firms – for transaction technical assistance, funding (ideally via grants or concessional loans), and backing via credit enhancements. The UNESCWA could be an important partner for Jordan and the region in general, as it could provide technical assistance and assist in the establishment of an SLB framework, among others. Sovereign advisory firms, such as Potomac Group, could provide transaction technical assistance, supporting Jordan in determining the bond's financial and non-financial characteristics and ideal issue date, and identifying key partners and investors. Additionally, credit enhancements are particularly important for Jordan given its low credit rating (B1 from Moody's). A guarantee from a regional or international development bank would allow a successful transaction by enabling the country to attract enough investors and issuing debt for cheaper.

A large **variety of external investors could be interested** in acquiring a Jordanian SLB. First, public sector actors, such as International Financial Institutions including the World Bank and regional institutions like the Islamic Development Bank or the Arab Monetary Fund. Jordan could also attract bilateral funds, especially from Sovereign funds, such as the Saudi, Emirati, Kuwaiti, as well as Norwegian or Singaporean funds. Second, private sector investors are particularly diverse and include asset management funds, hedge funds, and investment banks among others, some of which are specialized in sustainable finance and/or investments in emerging economies. For example, BlackRock has teams dedicated to emerging countries and sustainability investments, and PIMCO and Franklin Templeton often invest in sovereign bonds of emerging countries.

Moreover, issuing an **SLB could be more beneficial than issuing a green/blue bond**. A green/blue bond is a use of proceeds bonds, but without a results requirement, therefore generating less commitment from authorities to achieve goals. Because of this, some green-focused investors might fear investing without results, or greenwashing. Additionally, a green bond's funds are confined to a specific project while an SLB offers more flexibility to spend funds where urgent or necessary. Finally, a green bond does not have the same savings potential, and does not drive authorities to achieve change as much as an SLB, which has strong incentives via its financial penalty, but also sometimes financial rewards. In its latest bond issuance in April 2023, Jordan attracted over 230 institutional investors, including major American, European, and Gulf funds, which permitted a reduction in yields while other Sovereigns were struggling to attract investors.[83] Therefore, an SLB issuance coupled with a credit enhancement could allow Jordan to raise funds with even better yields.

[83] Al Khalidi, 2023.

Oman

The Sultanate of Oman has faced several economic and fiscal challenges over the past few years, mainly due to low oil prices, the effects of COVID-19, as well as high public debt.

In 2021, the Government implemented **"Oman Vision 2040" for social and economic planning during 2021-2040**. Going forward, policies under Vision 2040 will support a diverse and sustainable, low-carbon economy relying on technology, knowledge and innovation.[84] It aims to operate within integrated frameworks to foster fiscal sustainability, state-owned enterprises (SOEs) governance, non-hydrocarbon private sectors, job creation, and the energy transition to address climate challenges.[85] The Vision also aligns with the UN Sustainable Development Goals (SDGs).

Economic Background and Debt Profile

Economic situation and Debt sustainability

Oman's **economy rebounded** in 2022, supported by the hydrocarbon sector and the lifting of Covid-related social restrictions. In fact, **GDP** recovered from a contraction of 3.2% in 2020 to a growth of 3.0% in 2021, and 4.3% (above global growth) in 2022. Real non-hydrocarbon growth was mostly attributed to the 'agriculture and fishing' and services sectors.[86] Additionally, Oman's **fiscal balance** (Central Government) also improved significantly, attributed to the high hydrocarbon prices and fiscal adjustments. In 2021, it increased by 12.8 percentage points of GDP to a deficit of 3.2% –the lowest since 2014- mainly due to larger oil revenue, controlled expenditure, and a 5% VAT introduction in April 2021. The IMF estimates a **surplus** of 5.3% of GDP in 2022, mainly due to higher-than-expected hydrocarbon prices.[87]

Moreover, the Sultanate's external debt increased significantly from 2014 to 2020, soaring from 4% to about 70% of GDP. This increasing debt and past challenges had an adverse effect on the country's creditworthiness and cost of borrowing. However, **debt levels improved** the following years thanks to high oil prices and fiscal consolidation. In fact, **Central government debt** fell from 63% of GDP in 2021 to 44% (from c.US$54bn to c.US$48bn) the following year[88] *(see Figure 8)*. Medium and long-term maturities represent the largest share of debt, as bonds and sukuks constituted around 75% of domestic debt and 70% of external debt,[89] in 2021. Gross Financing Needs (GFNs) are expected to be financed via domestic and external debt and fiscal buffers in the near term, and predominantly via debt issuance in the medium term.[90] The **IMF expects the debt/GDP ratio to further decrease** to 37% in 2027 through Oman's ongoing fiscal consolidation, and projects GFNs at 3.9% of GDP. Additionally, the MoF states that reducing debt is one of its goals, with key advantages including the reduction of debt servicing costs, the restoration of fiscal space, the increase in allocations to finance additional development projects, the reduction of external financing risks, the improvement of credit ratings, and the strengthening of economic growth.[91]

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[84] Oman, Civil Aviation Authority, 2021.

[85] International Monetary Fund, 2023.

[86] Central Bank of Oman, 2023.

[87] International Monetary Fund, 2023.

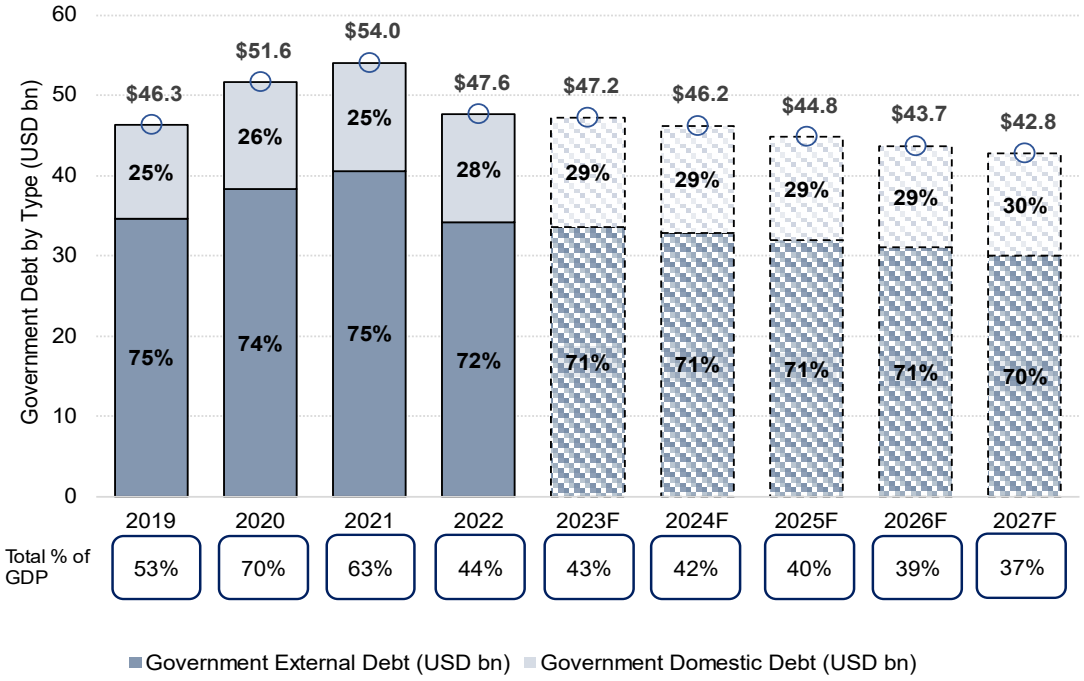
[88] International Monetary Fund, 2022b.

[89] *Ibid*.

[90] *Ibid*.

[91] Oman, Ministry of Finance, 2022.

Figure 8. Central Government debt evolution by creditor type



Source: IMF (November 2022)

Finally, Oman's short-to-medium term **prospects are globally positive**. On the upside, Oman's growth and the fiscal balance could be supported through additional hydrocarbon production capacity (e.g. via the Duqm refinery project), a stepping up of Vision 2040 reforms, and an increase in foreign direct investments. Oman is expected to become the fastest growing GCC country in 2023 with a 4.3% growth projected by the World Bank.[92] On the downside, the country's main risks are lower oil prices and demand —due to a worldwide recession and accelerated energy transition—, and pressures to spend fiscal buffers —due to high debt servicing costs and natural disasters.[93] Hence, Oman's **public debt sustainability is overall strong**, but remains subject to risks.[94] Therefore, the key rating agencies highlight the importance of the ongoing fiscal consolidation to face future financial challenges. In the longer run, as part of Vision 2040, the economy will be geared towards increasing investment in high value-added activities and bolstering non-hydrocarbon contribution to the GDP.[95]

Market access

The recent improvements in fiscal sustainability have allowed Oman to improve their credit rating and maintain strong market access and investor confidence.

Investors have welcomed the fiscal objectives of Vision 2040. In recent months, Omani Eurobonds have been trading between the price range of 90-100, and in some cases at a premium too *(see Table 5)*. The yield curve indicates strong investor confidence in the Sultanate's debt service capability in the short

[92] Zawya, 2023.

[93] International Monetary Fund, 2023.

[94] International Monetary Fund, 2022b.

[95] Oman, Civil Aviation Authority, 2021.

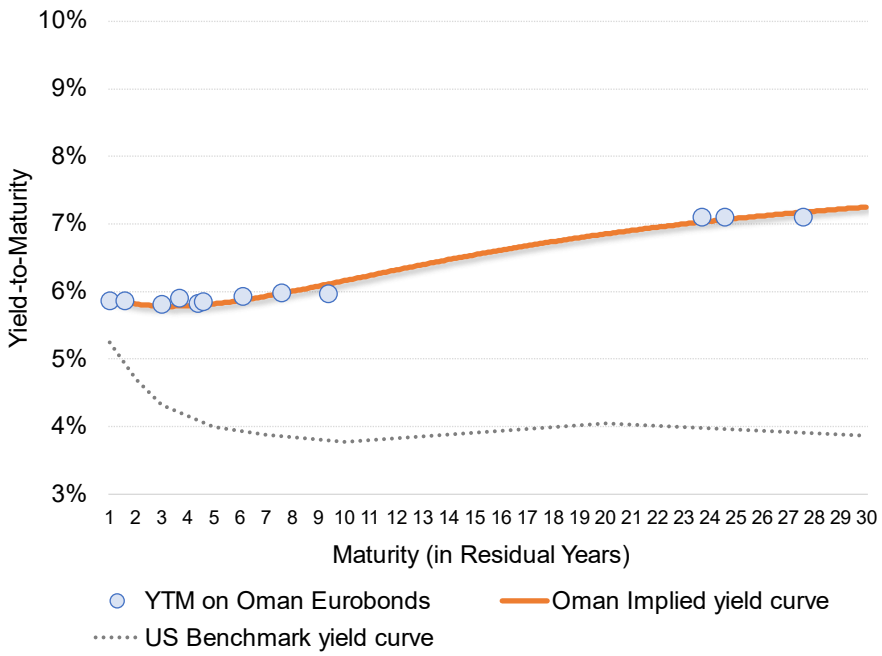
and medium term *(see Figure 9)*. As the latest issuance was over two years ago, in January 2021, a new Omani issuance could potentially easily attract investors.

Table 5. Outstanding Omani GG Eurobonds as of June 19th, 2023[96]

#	Issue Date	Maturity Date	Tenor (in yrs)	Amount Outstanding (US$ mil)	Issued Amount (US$ mil)	Coupon (in %)	Yield (in %)	Last Price
1	1-Aug-19	1-Feb-25	1.6	1,149	1,250	4.875	5.860	98.5
2	15-Jun-16	15-Jun-26	3.0	2,386	2,500	4.750	5.813	97.1
3	8-Mar-17	8-Mar-27	3.7	1,929	2,000	5.375	5.904	98.3
4	28-Oct-20	28-Oct-27	4.4	1,369	1,450	6.750	5.825	103.5
5	17-Jan-18	17-Jan-28	4.6	2,384	2,500	5.625	5.846	99.1
6	1-Aug-19	1-Aug-29	6.1	2,172	2,250	6.000	5.924	100.4
7	25-Jan-21	25-Jan-31	7.6	1,637	1,750	6.250	5.979	101.6
8	28-Oct-20	28-Oct-32	9.4	1,022	1,050	7.375	5.963	110.0
9	8-Mar-17	8-Mar-47	23.7	2,000	2,000	6.500	7.102	93.1
10	17-Jan-18	17-Jan-48	24.6	2,750	2,750	6.750	7.107	95.9
11	25-Jan-21	25-Jan-51	27.6	1,000	1,000	7.000	7.103	98.8
			Total	**19,799**	**20,500**			

Source: Refinitiv Eikon

Figure 9. Omani Eurobonds Yield Curve (as of June 19th, 2023)



[96] Refinitiv. Data Platform.

Source: Refinitiv Eikon

Recently, credit agencies have improved Oman's sovereign credit ratings, gradually upgrading its rating and revising its outlook to positive *(see Table 6)*.

Table 6: Oman's Sovereign credit ratings evolution

Credit Rating Agency	2022 Last Action	2023 Last Action	2023 Last Action Rationale
S&P Global	Upgraded from BB- to **BB** *November 2022*	Affirmed at BB/B, Outlook revised from stable to **positive** *April 2023*	Growing economy driven by government improved balance sheet and higher oil prices
Moody's	Affirmed at Ba3, Outlook revised from stable to **positive** *October 2022*	Upgraded from Ba3 to **Ba2-** *May 2023*	Reduced debt burden, to be continued over next few years, and spending restraint
FitchRatings	Upgraded from BB- to **BB** *August 2022*	Affirmed at BB, Outlook revised from stable to **positive** *April 2023*	Improved public finances thanks to high oil prices and fiscal consolidation, and falling debt

Current SDG Situation

National Circumstances and Events

Oman is the third largest and possibly the most geographically diverse nation in the Arabian Peninsula. This is essentially due to its location in its Southeastern corner, with a long coastline (3,165 km) connected to three seas (the Arabian Gulf, the Sea of Oman and the Arabian Sea), and a diverse topography over 309,500 km^2, with desert plains and sandy areas (c.80% of the country area), mountains, islands and islets, and lagoons.[97]

It is also one of the most vulnerable West Asian countries to risks and threats related to climate change and global warming. In fact, it has been exposed to intensifying tropical cyclones, rising temperatures, rising sea levels, and salt-water intrusion. Much of the population (4.5 million), infrastructure, and economic activity are near the coast, which is vulnerable to these natural events. For instance, cyclone "Shaheen" occurred in 2021, costing the Government around US$520 million in reparations.[98] Oman also experiences scorching summers and in June 2018, a coastal city experienced the world's hottest minimum temperature ever observed of 41.9 degree Celsius. Climate simulations of the Arabian Gulf have revealed that the region is a hotspot where the impacts of climate change are likely to surpass the survivability threshold in the absence of drastic carbon emissions reductions.[99]

Moreover, Oman has a rich biodiversity, with ecosystems hosting a wide array of plant and animal species. However, this biodiversity, which represents a great resource of wealth and wellbeing for Omanis, is facing threats. In 2015, more than half (55%) of the species faced survival threats, with nearly 50 species, mostly mammals and fishes, threatened on a global scale. These threats stem from factors

[97] Oman, Ministry of Environment and Climate Affaires, 2015.

[98] Figures calculated based on the average 2021 RO/USD exchange rate

[99] Oman, Civil Aviation Authority, 2021.

such as overgrazing, climate change, habitat fragmentation, poaching and urbanization. Protected areas cover nearly 4.7% of Omani territory today. Biodiversity and ecosystem changes in Oman are leading to depleted biomass productivity, desertification, hydro-geological instability, salt-water intrusion, and ecotourism industry destruction.[100]

Recent Actions

Oman has developed multiple national strategies to face climate change and more broadly to achieve the SDGs.

In fact, over 2015-2019, it elaborated a 2020-2040 strategy for climate change mitigation and adaptation. From 2017 to 2019, Oman laid a framework for action with the Green Climate Fund (GCF) via a Programme on Climate Change actions and priorities. Both parties identified six areas for GCF medium-term financing: water resources, marine and fisheries, agriculture, urban areas, public health, and energy.[101] The country developed the National Adaptation Plan (NAP) proposal with the GCF from 2018 to 2020. Additionally, Oman ratified the Paris Agreement in April 2019, which was a clear step forward in its engagement to join international actions to face climate change.[102]

Oman strategically harmonized its NDC adaptation goals with its NAP process to ensure an effective approach to climate planning. In 2019, it established the "National Strategy for Adaptation and Mitigation to Climate Change 2020-2040".[103] The **Environment Authority** (formerly "Ministry of Environment and Climate Affaires") **oversees the application of climate strategies and regulations**. The NAP's goal is to include adaptation measures into development planning, ensuring low carbon and climate-resilient projects. NAP will develop a system to identify projects that help the country to mobilize national and international financing and help develop local capacity and data management systems. Oman states that it has limited resources to implement climate mitigation and adaptation measures and stresses the importance of mobilizing international climate finance. It targets support from multilateral and bilateral organizations and agreements, including the GFC.[104]

More generally, Oman Vision 2040 and the ninth and tenth Five-Year Plans (2016-2020 and 2021-2025 respectively) attest to the country's commitment to the 2030 Agenda for Sustainable Development. It submitted its first Voluntary National Review (VNR) to the United Nations in July 2019, presenting its progress towards reaching the 17 SDGs, outlining strategies and plans to attain these goals.[105]

Climate Mitigation

Oman's Second NDC, published in 2021, is based on its Vision 2040 and the National Energy Strategy to shift towards a low carbon economy. For instance, the Sultanate has committed to reduce absolute GHG emissions by 2% by 2030. It also targets a GHG emissions reduction of 7% compared to BAU, i.e. an emissions level of nearly 116 mtCO2e by 2030.

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[100] Oman, Ministry of Environment and Climate Affaires, 2014.

[101] Oman, Civil Aviation Authority, 2021.

[102] *Ibid*.

[103] Moustafa Bayoumi, and others, 2022.

[104] Oman, Civil Aviation Authority, 2021.

[105] *Ibid*.

The energy sector was the largest emitter in 2015, representing 64% of emissions, mainly attributed to the electricity generation (natural gas and diesel), oil and gas (O&G), and transportation sectors. Hence, Oman's 2030 Carbon Control Target Plan focuses on two main areas: (i) large-scale deployment of renewable energy and increased energy efficiency, (ii) carbon reduction from the O&G industry.

(i) Oman aims to gradually increase the renewable energy's share in the energy mix, targeting 20% then 35-39% in 2030 and 2040 respectively *(see Figure 10)*. Over 2021 to 2027, renewables are estimated to secure at least 2,660 MW.
Oman has also been enhancing the existing gas-fired plant's energy efficiency since 2004. There was a significant improvement of 16% between 2015 and 2020 (from 39% to 55%), and an expected improvement of 11% over 2021-2025.[106]
In 2016, Oman initiated fiscal and legislative levers to reduce energy consumption and to encourage energy-saving. It liberalized oil products prices and gradually eliminated utilities subsidies over 2021-2025. In 2018, it introduced regulations to decrease electricity usage of split units and window air conditioners, known for their high energy consumption.[107]
Oman expects these measures to reduce GHG emissions by 7% in 2030, versus the BAU scenario. Of this reduction, 4% will rely on domestic initiatives, while the remaining 3% would require international help for financing as well as and capacity building, institutional strengthening, and access to technologies.[108]
Finally, Oman also aims to decarbonize the transportation sector over the next years.

(ii) Oman's upstream O&G industry has set goals to decrease the carbon intensity of activities by improving current facilities' efficiency, decreasing gas flaring, and implementing renewable energy projects. The industry is assessing the target of net-zero emissions by 2050. The plan mainly relies on investment in clean energy and a commitment to attain Zero Routine Flaring by 2030.[109]

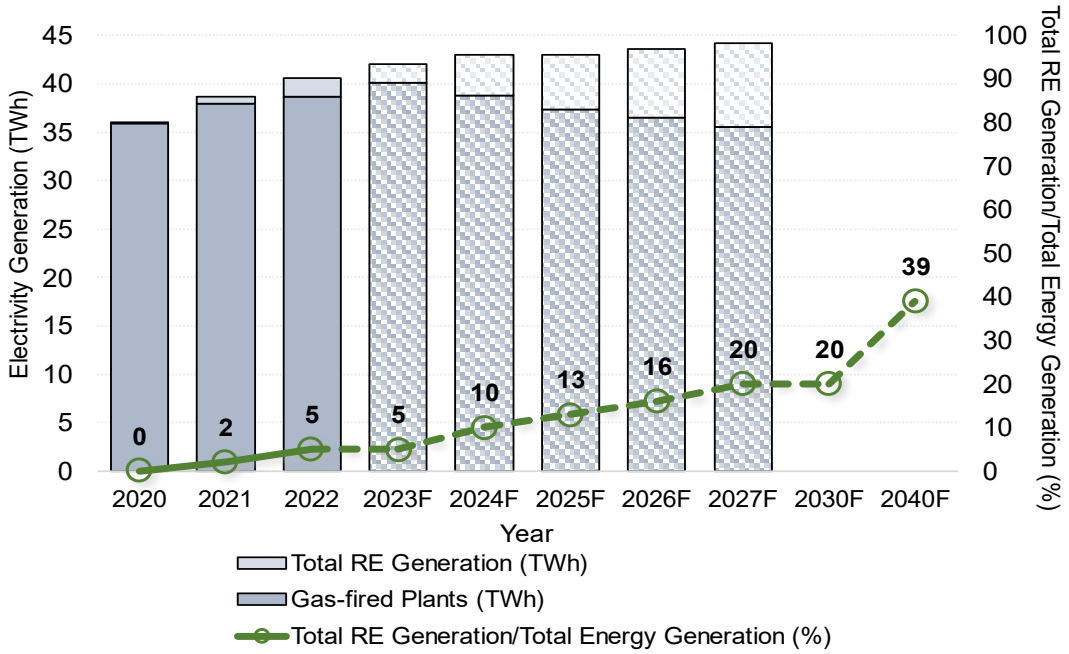
[106] *Ibid*.

[107] *Ibid*.

[108] *Ibid*.

[109] *Ibid*.

Figure 10. Oman's Energy Mix Evolution 2020-2040 Projections.



Source: Oman's Second NDC (2021)
Note: RE = Renewable Energy.

Climate Adaptation

Oman's recent Climate Change Strategy identifies climate-resilience priorities within key areas: (i) water resources, marine biodiversity, and fisheries; (ii) agriculture; (iii) urban areas, tourism & infrastructure; and (iv) public health.[110]

(i&ii) Fisheries provide major economic benefits for Oman while the agricultural sector globally contributes most to real GDP growth and is significant among non-hydrocarbon exports. Oman has therefore adopted major adaptation measures for food security. The measures prioritize local production by developing projects in agriculture and fisheries and agricultural groundwater enhancement via recharge dams to decrease salinity and increase groundwater levels near coastal areas. More generally, Oman has implemented numerous local legislations over the past decades to protect wildlife and nature and has ratified many related international treaties to protect its biodiversity and ecosystems.[111]

(iii&iv) Despite tighter budgets in the past years, Oman continued protecting its vulnerable cities from cyclones and floods and took adaption actions, such as improving the storm drainage system by constructing large dams and elaborating a National Spatial Strategy 2020-2040 to anticipate threatening climate events affecting urban areas and infrastructures and adopt adaptation responses accordingly. In addition, its nature conservation measures also contribute to the support of the job-creating eco-tourism industry.

[110] *Ibid.*

[111] Oman, Ministry of Environment and Climate Affaires, 2015.

In general, Oman's adaptation and biodiversity conservation efforts would have multiple benefits such as preventing desertification and land degradation, rehabilitating ecological disaster areas, and preventing sea and water resources pollution.

However, Oman faces challenges to reach its adaptation goals, including limited data availability to measure vulnerability, limited experience with climate risk decision-making, insufficient funds to tackle all climate impacts, and inadequate regulatory frameworks that impede on effective adaptation planning.[112]

UN SDG performance overview

Oman has established institutions and frameworks to support SDG monitoring, implementation, and reporting. The **Supreme Council for Planning** oversees the coordination and integration of the SDGs into national strategies.

In 2022, Oman was one of six Western Asian countries to have achieved two thirds of the overall SDG Index score.[113] Oman's forte is SDG 4 (quality education), as it has invested in enhancing access to quality education and vocational training.[114] Significant improvements were noted in economic (8 and 12) and governance (17, partnership for the goals) SDGs. We can also observe moderate improvements on environmental SDGs such as 6, 7 and 11. However, the Index shows major challenges in 2023 for SDGs 6 and 7. **The three lowest scored** SDGs are **13 (climate action)** at 33.7, **5 (gender equality)** and **6 (clean water).** The lowest two face implementation challenges and performance has been stagnant. Oman, like its GCC peers, faces major challenges for these three SDGs.[115] Finally, there are notable data gaps, mainly for SDGs 1 and 10 (no poverty and reduced inequalities), which stall efforts to assess and eventually improve these SDGs *(see Figure 11).*[116]

[112] Oman, Civil Aviation Authority, 2021.

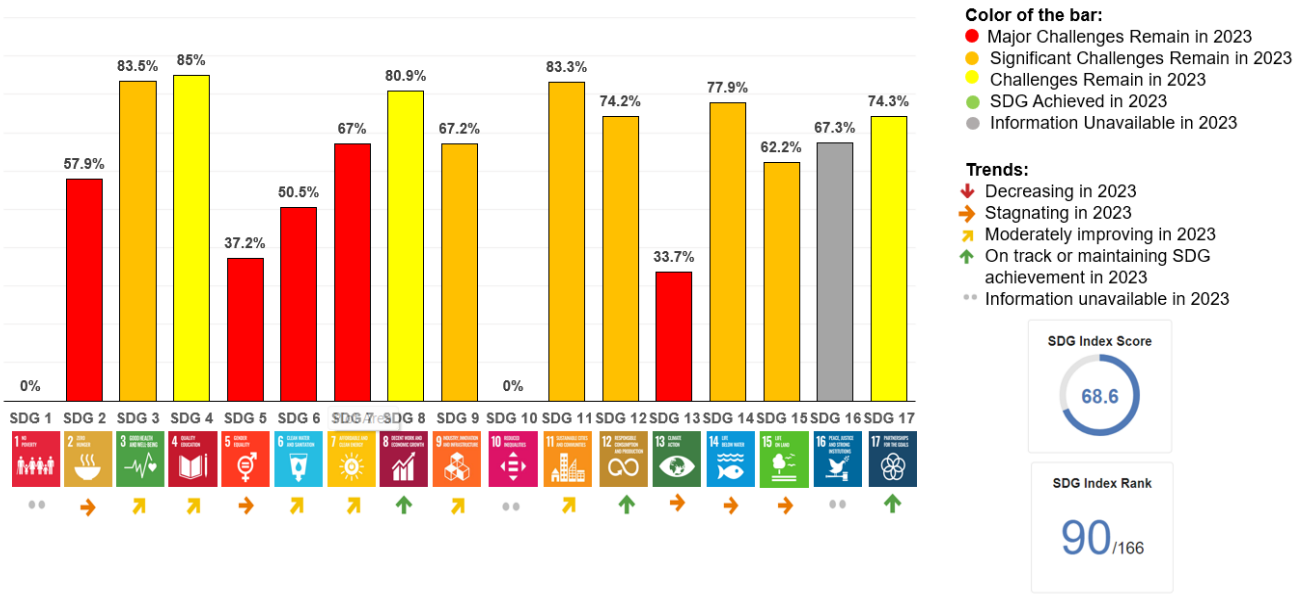
[113] Moustafa Bayoumi, and others, 2022.

[114] Times of Oman, 2022.

[115] Moustafa Bayoumi, and others, 2022.

[116] SDG Index, 2023.

Figure 11. Oman's SDG Performance in 2023



Source: SDG Index

Sustainability-Linked Bond Transaction Opportunities

Advantages of a KPI-Linked Debt Structure for Oman

Despite Oman's positive current and medium-term macroeconomic and fiscal outlooks, achieving its NDC targets and improving its SDG scores – mainly SDGs 6, 7 and 13 – will require additional financing.

Oman is eligible for an SLB issuance, since its debt is sustainable, it has market access, and it has the institutional capacity (with dedicated institutions) to deliver on the SPTs. It would give Oman the flexibility to allocate proceeds as it deems necessary, all while pushing it to achieve its NDC targets and key SDGs, some of which are already part of Vision 2040. They could allow Oman to connect environmental, social and debt management and strengthen all three.

Transaction examples

Looking at Oman's NDCs may give us ideas for what a potential Omani SLB could look like. Considering the NDC's key elements, an SLB may be based on the following:

- **Mitigation NDC: increase renewable energy use**
  - KPI 1: electricity generated from renewable energy sources (%)
    - SPT 1: reach 20% of electricity from renewable energy sources by 2030, and 35-39% by 2040, compared to 5% in 2023 *(see Figure 10)*.
  - KPI 2: additional renewable energy capacity launched (in MW)
    - SPT 1: reach over 3,000 MW of renewable energy capacity by 2027. In fact, Oman currently has 9 renewable energy projects (with total capacity of 3,135 MW), all expected to be launched by 2027.[117]

[117] Oman, Civil Aviation Authority, 2021.

This NDC contributes to SDG 7 for Affordable and Clean Energy.

- **Mitigation NDC: increase energy efficiency**
  - KPI 1: GDP per unit of energy use (international dollar, fixed 2011 or ranking)
    - SPT 1: exceed 14.57 (or top 20 countries) by 2030 and 17.3 (or top 10 countries) by 2040
  - KPI 2: efficiency of gas-fired plants (%)
    - SPT 1: increase gas-fired plants' efficiency to 63% in 2027, up from 55% in 2020
  - KPI 3: gas required per unit of electricity generation in the main interconnected system (Sm3 of gas consumed per MWH produced)
    - SPT 1: reach 144 sm3 of gas consumed per MWh produced, compared to 196 in 2020

  Both NDCs above contribute to Oman's goal to reduce absolute GHG emissions by 2% in 2030, and to SDG 13 for Climate Action.

- **Adaptation NDC: increase water availability**
  - KPI 1: Water available per person (million m3)
    - SPT 1: Reach 550-600 million m3 per person in 2030 and 650-700 in 2040[118]
  - KPI 2: Freshwater withdrawal (% of available freshwater resources)
    - SPT1: Lower or keep freshwater withdrawal at x% of available resources by 2030
  - KPI 3: Anthropogenic wastewater that receives treatment (%)
    - SPT1: increase share of wastewater that receives treatment to x% by 2030

  In addition to KPI 1 mentioned in Oman's NDC, we included Oman's lowest performing indicators under SDG 6 (Clean Water and Sanitation).

Additionally, given an SLB's versatility, Oman may also include other KPIs and SPTs, such as SPTs related to SDG 5 for Gender Equality, as it is a main issue in Oman, as well as LDN/biodiversity SPTs (e.g. linked to SDG 15):

- **SDG 5: Improve gender equality**
  - KPI 1: ratio of female-to-male labor force participation rate (%)
    - SPT 1: reach a female-male labor force participation of x% against 37% in 2022
  - KPI 2: seats held by women in national parliament (%)
    - SPT 1: reach at least x% of women in Parliament by 2030 vs. around 2% in 2023. Oman currently does not have a gender quota for its parliament.

- **LDN/NBSAP: Increase biodiversity protection**
  - KPI 1: Mean area that is protected in terrestrial sites important to biodiversity (%)
    - SPT 1: reach x% of protected area in terrestrial sites important to biodiversity by 2030 compared to 4.7% today

Moreover, as previously mentioned, an SLB's bonds characteristics may vary following a trigger event(s) post issuance. The characteristics changes should also be tailored to the country's needs as well as macroeconomic and fiscal situation. Because reducing and keeping debt levels low is particularly

[118] *Ibid*.

important to Oman, we recommend a coupon step-up in the event of a missed KPI, as it would strongly incentivize the government to achieve its SPTs.

Readiness requirements

Oman has already **expressed its commitment** to climate action via its national strategies and the signing of international climate agreements. It has aligned its national strategies and NDCs and included targets from Vision 2040 in its NDCs. It should continue to do so and make its national strategies and NDCs more synergetic. Finally, Oman's latest NDC is mainly focused on climate mitigation, and could perhaps include more adaptation and SDG-related targets.

As mentioned, strong **cooperation between national authorities** is key for a successful SLB transaction. In Oman, such authorities could be Oman's Environment Authority, the Ministry of Finance and the Debt Management Office.

Like Jordan, Oman should **cooperate with international public and private sector partners** for transaction technical assistance, funding, and backing via credit enhancements. For instance, ESCWA could support Oman with technical assistance, impact measurement and monitoring capabilities. Additionally, a credit enhancement would have two main advantages for Oman: (i) reducing its overall debt, by issuing bonds with even lower coupons, and perhaps refinancing more expensive debt, and (ii) attracting more investors.

As previously mentioned, Oman's current credit ratings and outlook are positive, and the country has fiscal buffers to face shocks and invest in climate actions. Additionally, its latest issuance was in January 2021, with the 8-year tranche (#7) trading at a premium *(see Table 5)*. Therefore, thanks to its current market attractiveness as well as the mismatch between offer-demand in the Sovereign sustainable bond and SLB market, Oman could raise funds via an SLB with potential to secure a greenium (*see above under Economic Advantages of a KPI-Linked Debt Structure*).

Like in Jordan's case, a **wide variety of investors** could be interested in an Omani SLB, both public sector institutions and private actors. The SLB would also bring in new financing, since it would allow the country to attract sustainability and ESG-focused investors that would have not otherwise invest in an oil exporting country.

V. POLICY RECOMMENDATIONS FOR UNESCWA FOR ASSISTING AND PREPARING MEMBER STATES

Given the wide-ranging diversity in climate, nature and geography; disparities in social and economic development, overall fiscal situations; borrowing capacities in capital markets, and potential to improve institutional capacity in the Arab region – UNESCWA can play a vital role to steer the coordination and facilitation required to successfully issue and accomplish the underlying developmental objectives of an SLB:

- ***UNESCWA can assist in knowledge sharing and as a provider of information***: UNESCWA can assist governments to get a deeper understanding of the underlying steps involved in successfully structuring and issuing an SLB. This can be done through the production of technical reports, by hosting workshops to provide technical assistance to government agencies and participants, information sharing at seminars and conferences, and by facilitating dialogue and communication on SLBs on national and international stages. Greater awareness and understanding of such instruments allow for more participants to come together to adapt and develop current SLB structures and models to international and national markets through dialogue, publication of creative academic studies and new and innovative sectoral practices.

- ***UNESCWA can engage government authorities in the requisite discussions related to establishing the SLB framework in the country – which can draw heavily on the International Capital Market Association (ICMA) SLB principles framework:*** This is the first step in the SLB issuance process. This process can also help increase institutional capacity by initiating inter-governmental discourse and cross-ministerial coordination to identify the overall financial, conservation and development objectives of the framework.

- ***UNESCWA can engage with and coordinate amongst relevant inter-government authorities (across ministries and departments); conservation and development experts and partners, and the Central Bank, or an investment firm, to assist in designing and structuring the SLB's developmental objectives, and facilitate with or participate in the monitoring and evaluation requirements of the SLB*****:** UNESCWA is uniquely positioned to assist in this process:

    - As a United Nations (UN) regional commission, UNESCWA can coordinate with and involve other UN institutional bodies such as the United Nations Development Programme (UNDP) or the United Nations Framework Convention on Climate Change (UNFCCC) etc., and other international conservation and development partners that specialize in and have the expertise to structure KPIs and SPTs. In this capacity, UNESCWA can play the role of a facilitator by convening and bringing together multiple participants in the SLB issuance process. UNESCWA can work with these institutional partners to identify and prioritize observable, measurable or quantifiable targets that can be externally verifiable and audited by an independent third party.

    - UNESCWA can also engage and coordinate with MDBs, like the World Bank, and other potential DFIs to participate in the transactions and provide customized and appropriate

credit enhancements on a project and transactional basis. As discussed earlier, a credit enhancement can be critical as they can substantially reduce a sovereign's cost of borrowing, allowing even sovereigns with lower creditworthiness and heavy debt burdens, who are inhibited from being able to finance their LDN targets, NDCs and SDGs, to access capital markets to raise the required financing.

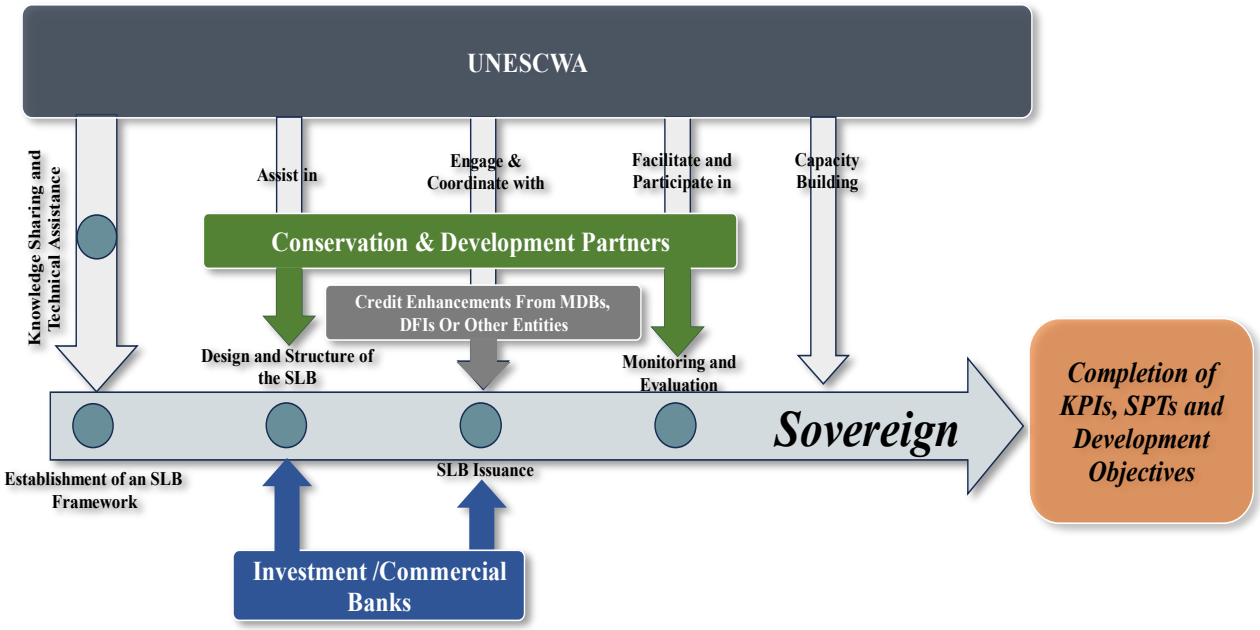
- UNESCWA can participate in the monitoring and evaluation aspects of an SLB transaction. UNESCWA can work with independent verification authorities, private analytical firms, non-profits, other UN institutional bodies and multilateral agencies to put in place the requisite 'safeguards', such as the publication of annual reports and updates by the government and independent third-party evaluators, to track governments' progress on their commitments. This ensures the necessary accountability and transparency through the whole process – that is both a prerequisite and feature of an SLB.

- Through all of these processes, UNESCWA can provide capacity building workshops to the sovereigns to ensure they are not lacking the institutional capacity to achieve the necessary steps to a successful SLB issuance.

Table 7. Policy Recommendations For UNESCWA To Prepare Member States For SLB Issuance

I	II	III	IV	V
Knowledge Sharing and Technical Assistance	**Assist in establishment of an SLB framework**	**Engage and coordinate with multiple partners to facilitate the design and structure of the SLB**	**Participate and assist in Monitoring and Evaluation**	**Provide Capacity Development to build institutional capabilities.**
		Potentially coordinate with MDBs and DFIs on a potential credit enhancement in collaboration with the sovereign.		

Figure 12. UNESCWA's Role In A Sovereign SLB Issuance



VI. CONCLUSION

SLBs are extremely versatile instruments that allow for a high degree of customization to suit the needs of the sovereign issuer. As such, they are a powerful tool for achieving national goals and commitments to addressing climate change, environmental degradation, and social development needs. This is partly due to the SPT-based structure of an SLB, which makes it very easy to link directly to countries' NDCs, LDN targets, NBSAP goals, or other national development agenda targets that have already been set.

The three core requirements for issuing an SLB – market access, debt sustainability, and strong institutional capacity – are reasonably prolific across the Arab World, creating a wealth of opportunity for revolutionizing the way in which UNESCWA's member countries borrow to finance their development agendas. For those countries with below-investment-grade credit ratings, the transparency and accountability that an SLB offers over other instruments makes it particularly especially conducive to receiving a guarantee, or other credit enhancement, thereby reducing the cost of borrowing. In this way, potential guarantors, such as multilateral and regional development banks, can mobilize even more financing through the private sector than they could with the same amount as a simple grant.

Issuing an SLB takes a great deal of work and coordination, but UNESCWA can assist its member countries with the preparation and process in a number of ways, beginning with the simple dissemination of information on initial steps and feasibility assessments. From there, it can help to guide the process of designing SPTs and KPIs to ensure that they appropriately reflect the goals they intend to support. Importantly, UNESCWA can also help to bring together other supports, such as potential donors, investors, implementing NGOs, guarantors, or even SPO providers. For certain KPIs, UNESCWA may have the capacity to assist with the monitoring and evaluation, though this would be dependent on each specific case. Finally, it can host capacity building workshops to continue its work in the above categories, disseminating knowledge and connecting member states with experts that can help along the way.

Jordan and Oman are both well-positioned to issue SLBs, though the process may look slightly different for each country. Both countries may choose to link at least one SPT to renewable energy in an effort to fulfill an NDC for climate mitigation, while also linking another or more to water security and wastewater management, thus fulfilling NDCs for climate adaptation. The latter initiative may be of particular concern to Jordan, and so it may additionally choose to address some LDN goals, creating a cross-cutting SLB focused on land management and climate resilience. Oman, meanwhile, has an opportunity to include KPIs that measure its progress towards SDG 5 on improving gender equality, a prominent issue for the country. It also has an opportunity to create at least one SPT for terrestrial biodiversity protection, and its long coastline may even allow for the incorporation of marine protection. If several of these key issues were targeted through the same instrument, Oman could issue a holistic SLB that is both environmentally and social impactful. Both countries could benefit from a credit enhancement, though it would be particularly useful to Jordan, whose sovereign credit rating is slightly lower.

Finally, a coupon-step up mechanism could be appropriate for either country so as to raise the incentive to follow through with meeting targets, though Jordan may also consider a donor-backed rewards-based approach. A multilateral or regional development bank may be especially open to providing this if the funds were directed towards managing Jordan's refugee crisis.

These are just some of the possibilities for structuring an SLB in each of these two case study countries, and comparable range of options may be available for other UNESCWA member states as well. The

variety of available options for both bond structure and choice of objectives are made accessible by the versatility of the SLB as a tool, allowing a bond issuance to be tailored according to the needs of the respective country.

APPENDIX 1: ELABORATION ON ICMA GUIDELINES FOR CREDIBLE AND EFFECTIVE SLB ISSUANCE

The ICMA developed guidelines via its "Sustainability-Linked Bond Principles" (SLBP) with the aim to increase understanding and capital allocation to such instruments. The guidelines pertain to SLB structuring features, disclosure, and reporting.[119]

SLBs push the issuer to achieve "material, quantitative, pre-determined, ambitious, regularly monitored and externally verified sustainability (ESG) objectives"[120] via KPIs and SPTs.

The SLBP highlight the recommended and necessary information to be disclosed transparently, accurately and with integrity by issuers.

The SLBP encourages issuers to communicate their rationale for the selection of KPI(s) (i.e. relevance, materiality), the motivation for the SPT(s), the potential variation of bond characteristics and the trigger events leading to it, post issuance reporting and independent verification. The KPI(s) definition and SPT(s) (and calculation methodologies) and the potential change of the SLB's characteristics are key elements of the bond documentation.[121]

The SLBP's five core components are: "1. Selection of KPIs; 2. Calibration of SPTs; 3. Bond characteristics; 4. Reporting; 5. Verification".[122]

Selection of KPIs

The credibility of the SLB market will depend on the selection of one or more KPI(s). Avoiding the proliferation of non-credible KPIs is key to the success of this product.

First and foremost, the KPIs should be **material** to the issuer's core sustainability policies and address relevant ESG goals. They should also be "measurable or quantifiable on a consistent methodological basis; externally verifiable; and able to be benchmarked".[123]

Issuers are encouraged to select KPI(s) for which they have at least 3 years of historical data. Finally, the KPIs should be "SMART: specific, measurable, attainable, relevant and time-bound".[124]

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[119] International Capital Markets Association, 2023.

[120] *Ibid*.

[121] *Ibid*.

[122] *Ibid*.

[123] *Ibid*.

[124] *Ibid*.

Calibration of SPTs

The process to calibrate one or more SPT(s) per KPI is central to the SLB structuring as it will illustrate the issuer's level of ambition and commitment.

The SPTs should be both **ambitious and realistic** (i.e. represent a material improvement in the respective KPIs); be compared to and rely on a benchmark or an external reference where possible; be consistent with the country's sustainable development policies; and be set on a predetermined timeline, before (or with) the issuance of the bond.[125]

The issuer's disclosures on target setting should include, among others, how it intends to reach such SPTs, e.g. by describing its sustainable development policies/NDC plans. Sovereigns could issue SLBs linked to their NDCs (Nationally Determined Contributions) and other national strategies to ensure climate and sustainable development goals (SDGs) commitment and action.

Finally, it is recommended that issuers appoint, pre-issuance, (an) external review provider(s) such as a Second Party Opinion, to validate the instrument's alignment with the SLBP's five core components.

Bond Characteristics

The SLB will need to include a "financial and/or structural impact involving trigger event(s)".[126] The most common example is a variation of the coupon (step-up), but it is also possible to modify other financial and/or structural elements of the SLB. The changes of the instrument's financial and/ or structural characteristics should be meaningful relative to the initial financial characteristics.

Reporting

Issuers of SLBs should report regularly and share: recent information on the performance of the KPI(s); a verification assurance report presenting performance against the SPTs and the ensuing impact on the bond's characteristics; and any information allowing investors to assess the level of ambition of the SPTs.

Verification

It is necessary for issuers to mandate an independent, external and qualified organism (e.g. an auditor or sustainability consultant) for post-issuance verification. The organism will verify performance against each SPT for each KPI, once a year and in "any date/period relevant for assessing the SPT performance leading to a potential adjustment of the SLB's financial and/or structural characteristics, until after the last SPT trigger event of the bond has been reached".[127]

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[125] *Ibid*.

[126] *Ibid*.

[127] *Ibid*.

Moreover, there are other considerations to keep in mind while planning an SLB issuance. The choice of the SLB issuance's size should take into account liquidity issues and investment factors. Even the SLBs do not require use of proceeds, it could be useful to link the notional to indicators such as the investment gap to achieve a goal.[128] Additionally, a successful SLB pre- and post-issuance process requires strong national frameworks and mechanisms for performance tracking, monitoring, reporting and verifying. Designating or creating a specific entity, such as a delivery unit, can be key to ensure success from issuance until maturity.

[128] Abdeldjellil Bouzidi and Denis Papaioannou, 2021.

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