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Task Force 02
SUSTAINABLE CLIMATE ACTION AND INCLUSIVE JUST ENERGY TRANSITIONS

Rethinking Sustainable Finance for Drylands

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Abstract

Drylands constitute 45% of global land area. Up to one-third are already degraded and this figure is increasing. Degraded drylands threaten local livelihoods, food and water security, and ecosystem services. They increase health, conflict, and migration risks and are exacerbated by climate change.

Sustainable land management (SLM) and land restoration interventions are urgently required. High-level initiatives, such as the UN Decade on Restoration and the G20 Global Land Initiative (G20 GLI), outline strategic frameworks for action. The G20 GLI aims to reduce global land degradation by 50 percent by 2040, supported by an increasing body of scientific literature and case studies of successful interventions.

However, sustainable financing models remain a limiting factor – proving challenging to design and deploy effectively in drylands and not keeping pace with demand. Emerging global efforts, from community initiatives to regional endeavours, such as the Great Green Wall and Middle East Green Initiative, require bespoke financing modalities, both conventional and innovative, to support restoration goals.

This policy brief supports Brazil's G20 theme of building a just world and a sustainable planet by "rethinking" finance models for SLM and dryland restoration. It supports G20 policy on fostering investment and innovation for socio-bioeconomy and nature-based solutions, and SDG financing more broadly. The brief explores current financing limitations and outlines models for further consideration and deployment. It seeks to identify synergies between the Rio Conventions on climate change, biodiversity, and desertification and to inform the upcoming 16th Conference of Parties (COP16) of the United Nations Convention to Combat Desertification (UNCCD), where an emphasis on financing is expected. Ultimately, the brief advocates for enhanced investment in SLM and land restoration under relevant G20 Sherpa and Finance tracks.

Diagnosis of the issue

Drylands refer to arid, semi-arid and dry sub-humid regions. They cover 45 percent of the world's total land area and are home to one-in-three people globally. Up to 35 percent of global drylands are degraded, and this figure is rising (IUCN 2017). Degraded land threatens the resiliency of local livelihoods, exacerbates water, food, and nutrition insecurity, compromises critical ecosystem products and services, and increases conflict and migration risks. Increasing climate shocks, such as drought events, can accelerate land degradation. In response, high-level initiatives such as the UN Decade on Restoration and the G20-initiated Global Land Initiative (GLI), emphasize the importance of preventing, halting, and reversing degradation of ecosystems and promoting sustainable land management (SLM) at scale. The G20 GLI aims to achieve a 50 percent reduction in degraded land by 2040, and, to date, more than 115 countries have committed to achieving land degradation neutrality, with pledges for more than 1 billion hectares to be under restoration by 2030 (PBL 2022).

The socioeconomic and environmental justifications for these global pivots are well-justified: (i) Drylands constitute the world's food bowl, comprising 44% of croplands and 50% of livestock (UNCCD 2017); (ii) Poverty incidence tends to be higher in drylands and degraded drylands risk the health and wellbeing of ~1 billion people in over 100 countries (UNCCD 2022); (iii) Women constitute 43% of agriculture workers globally but own less than 20% of land (FAO 2023); (iv) Agriculture employs more than a quarter of the global workforce (FAO 2020), the largest employer in many countries; (v) Almost one quarter of anthropogenic GHG emissions derive from agriculture, forestry and other

land use (AFOLU) (IPCC 2019); and the costs of land degradation are estimated to be ~10% of annual global GDP (IPBES Secretariat 2018).

However, despite such imperatives, commensurate finance is not being deployed. Such environments pose unique physical and socioeconomic investment challenges. For example, drylands may be more fragile, recover more slowly, and have lower standing biomass than other ecosystems, such as tropical forests, where financing models are better established (e.g. REDD and REDD+). Additionally, about three-quarters of drylands are used by pastoralists (UNCCD 2017), who may be semi-nomadic, land tenure may be less well-defined, and household incomes seasonal and climate-vulnerable. Limited capital in global drylands tends to "leak", meaning that exported capital is not re-invested, consistently undermining sustainable development prospects in these regions (GCA 2022). Drylands have even been referred to as "forgotten", particularly when it comes to the value of their ecosystem services and the investment and marketing opportunities they offer (Middleton et. al. 2011).

Whilst an increasing catalogue of large-scale dryland restoration initiatives is accumulating globally[1], sustainable financing can prove challenging (Raman 2023). Hence, there is a need to understand current financing model limitations and to explore models with the greatest potential to support the significant upscaling of land restoration efforts that are required to meet increasing global ambitions.

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[1] Examples include the Great Green Wall (Saharan/Sahel Africa), Saudi Green Initiative (KSA), Middle East Green Initiative (Middle East, Central Asia, and (North) Africa), Loess Plateau Watershed Rehabilitation (China), Ten Billion Tree Tsunami (Pakistan), and others.

Recommendations

Given the cross-cutting nature of climate change, biodiversity, and land, the respective Rio Conventions each lay the foundations for enhanced cumulative financial flows:

UNFCC-related financing: Global climate finance surpassed USD1 trillion in 2021/22 (almost half from private sources) (Buchner et. Al. 2023). In 2022, multilateral development banks (MDBs) announced annual climate finance of ~USD100 billion (IsDB 2023), much targeting developing and emerging economies.

CBD-related financing: The 2022 Kunming-Montreal Global Biodiversity Framework Fund has been ratified by 186 countries (GEF 2024). Multiple countries have signed up to "The 10 Point Plan" to mobilize at least USD200 billion in biodiversity financing annually and to end or repurpose USD500 billion worth of harmful subsidies per year by 2030 (10PP 2022).

Under the UNCCD, the Global Mechanism promotes actions supporting the mobilization and channelling of financial resources. The Land Degradation Neutrality Fund, established in 2013, leverages public money to raise private capital for sustainable land projects, raising over USD100 million (UNCCD n.d.).

Whilst each Convention mobilizes cross-cutting finance, meeting collective targets requires finance flows for nature-based solutions to triple by 2030 (UNEP 2022). Among the Conventions, estimated financial flows for desertification (dryland degradation) are lagging (see Figure 1) (UNCCD 2019). However, where financing is directed to combat

desertification, it strongly benefits other Rio Convention goals, in other words, investments in land produce co-benefits.

The lack of finance for SLM extends beyond the Rio Conventions to the Sustainable Development Goals (SDGs). Of 17 SDGs, SDG 15: Life on Land has the second lowest number of funds and facilities (Figure 2) (UNCCD 2019).
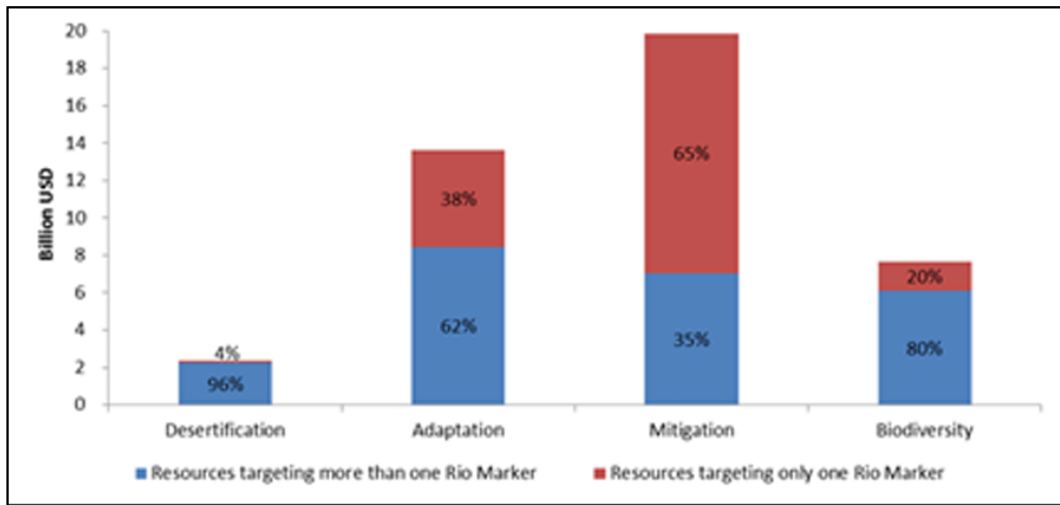

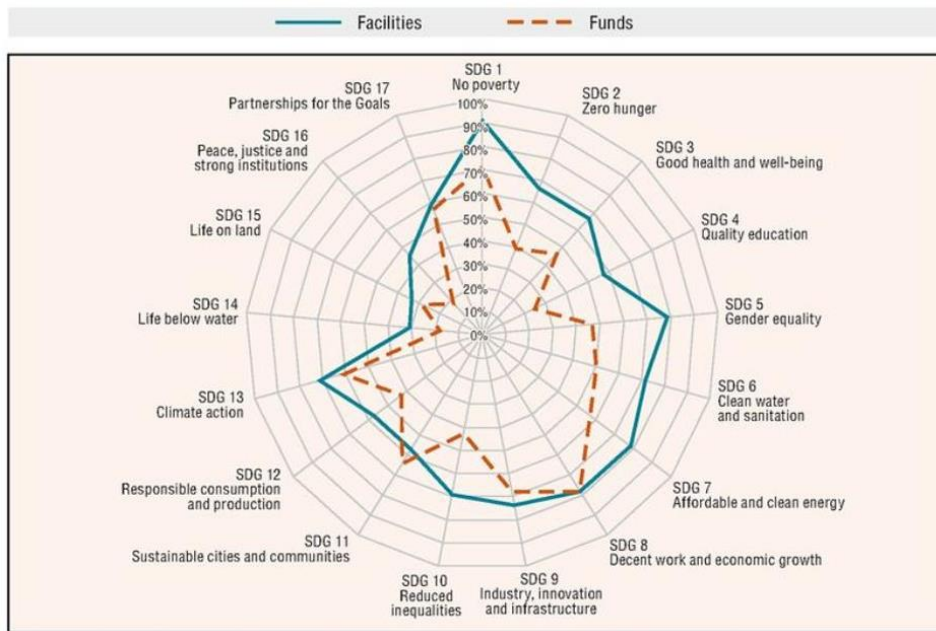FIGURE 1 – Bilateral Official Development Assistance across Rio markers (Annual average 2014-2016) (UNCCD 2019)

FIGURE 2 – Funds and facilities targeting different SDGs (OECD 2018)

To achieve scaling of finance for SLM and land restoration will require leveraging both conventional and innovative financing modalities[2]. As an example of the need for diversification, Overseas Development Assistance (ODA) trends illustrate the point. Despite volumes of bilateral desertification-related ODA remaining stable[3], its relative share is declining as other sectors and environmental objectives are prioritized (UNCCD 2019). Complementary and new financial sources are needed to fill the gap.

Learnings may be gained from previous and current large-scale dryland interventions, such as China's Loess Plateau Watershed Rehabilitation Project, Africa's Great Green

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[2] Conventional financing modalities may be considered government budget allocations and Official Development Assistance. Innovative financing modalities are non-traditional modes of financing from internal, external, private or public sources.

[3] Over a decade-long period from 2006-2016. UNCCD, 2019.

Wall, and Pakistan's Billion Tree Tsunami which have explored a range of conventional (e.g. national and subnational budget repurposing and ODA) and innovative (e.g. carbon banks (Pan-Africa Agency of the Great Green Wall n.d.) and nature performance bonds (Hess 2021)) financing modalities.

Table 1 outlines potential conventional and innovative financing sources and modalities to support system change in SLM and land restoration. Within Table 1, there is scope for scaling up financing volumes from current mechanisms; expanding/adapting the scope of current financing mechanisms to meet SLM and land restoration objectives; and introducing/crafting new financing mechanisms bespoke for dryland socioeconomics.

Highlights from Table 1 illustrate the range of potential financing modalities available to support SLM, including:

- Thematic bonds – sustainable bond issuance exceeded USD1 trillion in 2023, bolstered by record levels of green bond sales (Gardiner 2024). Bonds crowd-in private finance, but bankable SLM projects are needed.

- Climate finance – nearly doubled from 2019/20 to 2021/22, however, adaptation finance received only USD63 billion in 2021/22, of which only 11 percent went to AFOLU (Buchner et. al. 2023). A climate finance shift towards adaptation and SLM is needed.

TABLE 1 – Conventional and innovative finance sources and modalities to support SLM system change

	Actors	Mechanisms to be explored
Conventional	• Governments • Bi/multilateral development banks and donors • Humanitarian organizations	• Government budget reallocation/repurposing, potentially linked to national finance plans. • Channel national budget to sub-national/local governments for SLM and land restoration. • Broadening and increasing ODA support for SLM and land restoration. • Enhancing traditional project loans for dryland infrastructure, e.g. climate-smart water supply, efficient irrigation, hybrid crops, decentralized renewable energy. • Transitioning focus of humanitarian aid for drought relief from responsive to resilience building, preparedness, and early warning systems. • Multiple national governments keystone budgetary support for regional scale initiatives, such as the Great Green Wall or Middle East Green Initiative. • Shifting traditional loans to SLM results-based financing models. • Guarantees to mitigate key government-related risks to enable financial viability and bankability for SLM and land restoration. • Debt for nature swap, where foreign debt is purchased, and proceeds fund conservation activities. Opportunity to expand concept into dryland regions. • Possible review of fiscal policies and trade tariffs relevant to dryland economies.
Innovative	• Private sector companies & financing institutions (e.g. banks, insurance) • Landholders / farmers / pastoralists • Cooperatives • Civil society organizations • Philanthropies / foundations • Emerging donors • Decentralized cooperation (local governments)	• Creating green lines of credit in domestic and international commercial banks. • Leveraging parametric insurance, restoration insurance and collective risk pooling (such as Takaful), with a focus on drought resiliency. • Thematic / impact bonds (e.g. green, sustainability, nature-performance, climate-impact) to crowd-in private capital for SLM. • Blended financing models between philanthropic/grant financing and concessional lending. • Enhanced international climate funds (e.g. Green Climate Fund, Adaptation Fund) support for SLM and land restoration. Potential to link such funds to local-level climate adaptation funds, supporting community investment priorities. • Leveraging grants for resilience building measures and early warning systems. • Exploring carbon offset, "feebates" (tax subsidy), and carbon market opportunities (including carbon bank concept) to support biological carbon sequestration and low-carbon SLM measures. • Emerging nature-positive finance opportunities via financiers such as the Global Environment Fund and private sector actors. • ESG investments from private sector to support SLM, land restoration and local communities. • Payment for ecosystem services to support incentive-based conservation policies. • Green microfinance and MSME financing models for SLM, green enterprises and livelihood resilience building. • Crowdfunding platforms to engage and mobilize domestic and international citizens. • Potential domestic or international in-kind contribution (via labor, equipment, or other forms of support) for SLM and land restoration.

- Blending finance – may enhance scale and impact for financiers. For example, the USD2.5 billion Lives and Livelihood Fund blends philanthropic grant financing with concessional MDB financing to support poor communities (LLF n.d.).

- Collective risk sharing – such as cooperative arrangements and Islamic insurance (Takaful) may build community resilience by collectively pooling resources to protect against shock events.

- Green microfinance – increases access to finance for the poor and creates incentives for sustainable practices (European Commission n.d.).

- Carbon markets – (voluntary and compliance) may present opportunities to mobilize new sources of finance for large-scale conservation and restoration interventions and to advance concepts such as "carbon justice" (Soezer & Kansuk 2022).

- Debt for nature swaps – allow countries to free up fiscal resources to take action to protect nature (Whiting 2023) and could be developed for dryland systems.

Successful finance mobilization requires adequate governance systems, transparency/accountability mechanisms, monitoring, and stakeholder engagement and capacity building.

Cross-cutting G20 support for the Rio Conventions is strong, including the Global Initiative on Reducing Land Degradation and Enhancing Conservation of Terrestrial Habitats (G20 2021) and the commitment to halt and reverse biodiversity loss by 2030 (G20 2022). *Building upon this strong foundation, recommendations for the G20 to help scale-up financing for SLM and land restoration include:*

- Advocate for Rio Convention synergies and mobilization of finance for joint climate change, biodiversity and land investments. UNCCD COP16 presents an opportunity to advocate for increased finance mobilization.

- Advocate for greater investment in SLM and land restoration under relevant G20 Sherpa and Finance tracks. Convene financiers–conventional and innovative–to scale specific financing modalities with greatest potential for SLM and land restoration.

- Support countries to develop integrated investment frameworks for SLM and land restoration.

- Consider establishment of a specialized financing vehicle to scale financing for SLM and land restoration activities. This could provide a clearing house to fast-track and scale finance flows.

Scenario of Outcomes

Enhanced G20 support for SLM and land restoration builds upon current initiatives and reframes SLM and land restoration as new norms, embraced by G20 and non-G20 countries. A clear overarching global framework provides leadership on knowledge, governance, finance, and stakeholder engagement. The framework facilitates exchange of best practices and finance, international and domestic. Within the overarching framework, communities are provided access to knowledge, finance, and assets to chart local-level green development pathways.

SLM and land restoration interventions protect and recover ecosystem function, increasing local resilience to climate shocks. The food system is transformed, increasing local incomes, and reducing capital leakage. The stimulation of local economies reduces out-migration, easing pressure on over-populated towns and cities.

G20 governments support finance mobilization for SLM and land restoration, sending clear signals and supporting the enabling environment for large-scale investments. Governments, public sector institutions and development finance institutions act as keystone investors, crowding-in private sector finance and providing catalytic and core capital for SLM and land restoration. The G20 supports countries to develop integrated investment frameworks for SLM and land restoration.

G20 governments help to catalyse private sector investment for conservation and restoration by supporting improved revenue streams from enhanced ecosystem services (including harnessing the potential value of carbon) and increasing access to concessional capital to support innovative business models.

Establishment of a specialized finance vehicle to scale financing for SLM and land restoration activities is supported with foundational development and startup financing from G20 Member Countries. The vehicle helps to mobilize finance at scale, from a variety of conventional and innovative sources (see Table 1). Financing modalities supported by the special vehicle could include thematic bonds, blended finance, risk pooling mechanisms, climate finance, carbon markets, and green microfinance, among others. Such diversity and focus on financing rejuvenate SLM and land restoration and ensures that financing reaches dryland communities, pastoralists and smallholder farmers.

Enhanced financing solutions, from a diversification of public and private sources, help overcome funding gaps, particularly in developing and emerging economies. Innovative approaches reduce transaction costs / intermediary costs, meaning that every dollar mobilized goes further. Digital technologies help to improve access and efficiency of transactions.

Large-scale initiatives, such as the Middle East Green Initiative, enable larger areas and more affected communities to be supported at comparatively lower costs. By providing the necessary overarching frameworks, visibility and profile, coordinated governance, economies of scale, and capacity building capabilities, such initiatives crowd-in significant volumes of sustainable public and private finance. Their scope and impact extend regionally, empower national governments, and facilitate locally derived and appropriate solutions. Such interventions promote land tenure rights and access to finance for communities to encourage local investments in green bioeconomies, including micro, small and medium enterprises (MSMEs). With security of tenure, communities are incentivized to contribute to environmental action because they capture the benefits from their investment into the land. Youth, women, traditional and indigenous communities

receive support for green MSMEs and to stimulate local green industries and jobs. Financing for SLM and land restoration supports hard, soft, and green infrastructure, mixing climate-smart energy, water and food system assets with nature-based solutions, and local institutional support.

As with any systemic change, trade-offs are expected, at least in the short-term. Inclusive development processes may present increased up-front costs and stakeholder engagement processes. As such, finance allocated elsewhere – even for land restoration outside drylands, let alone other sectors – may be recovered more quickly (i.e. slower growing conditions in drylands yield slower returns). Any socioeconomic restructuring may adversely affect existing economic arrangements and stakeholders (e.g. transitioning away from unsustainable extraction and production systems may lead to initial job losses) and new land-based value chains and valuing of ecosystem services will require financing adjustments. Diversifying financiers may increase transaction costs initially, as investors take time to familiarize with innovative financing mechanisms applied in new SLM and land restoration contexts. Finally, implementing sustainable practices may increase prices for consumers and be more expensive and labour-intensive for farmers, at least initially.

However, short-term trade-offs are offset by transformational longer-term gains and may be the only way to address the "polycrisis" of climate change, biodiversity loss, land degradation and poverty in an inclusive, fair and just manner.

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