INVESTOR BRIEF

Scaling up investment in Nature-based Solutions for Climate Resilient Infrastructure

TANZANIA

GLOBAL CENTER ON ADAPTATION

UNIVERSITY OF OXFORD

Oxford Programme for Sustainable Infrastructure Systems

UK International Development

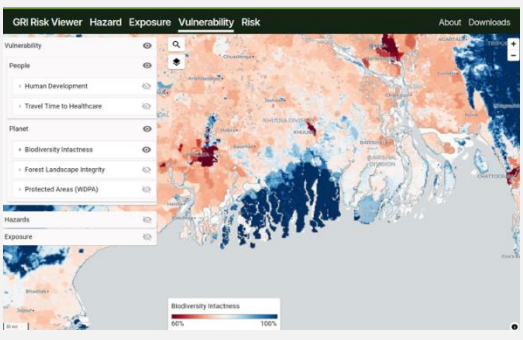
Partnership | Progress | Prosperity

KEY MESSAGES

- Tanzania's road infrastructure handles 90% of passenger and 70% of freight–making it its most critical infrastructure
- Estimated Annual Damages on road infrastructure will two to four-fold by 2080, potentially reaching 100% of it current value lost
- Without adaptation, Climate Change could have an impact equivalent to 4% of the GDP in 2050
- A pipeline of 12 High-priority NbS investments are identified, according to risk and socio-economic metrics

GLOBAL TOOLS FOR NBS

The Global Tool on NbS aims to address critical data gaps by 1) assessing and pricing climate risk for infrastructure systems, 2) quantifying the value of nature-based assets in protecting infrastructure, and 3) using this data to identify and evaluate NbS investment opportunities. They provide policymakers, financial institutions, and private investors with actionable data and analytics, helping integrate nature-based solutions into national and sub-national infrastructure planning.



TANZANIA'S INFRASTRUCTURE SYSTEMS UNDER A CHANGING CLIMATE

Critical Infrastructure systems of Tanzania

Tanzania's economic resilience rests on a vast, multimodal transport network.

An integrated network of roads, rail, maritime, and aviation systems supports the country's connectivity. Major maritime ports at Dar es Salaam, Tanga, and Mtwara—complemented by lake ports on Victoria, Tanganyika, and Nyasa—and an aviation sector with 58 airports and over 20 airlines connect Tanzania to regional and international markets. **Roads alone carry 90% of passengers and 70% of freight, linking economic hubs such as Dar es Salaam, Dodoma, Mwanza, and Arusha while supporting vital trade corridors.**

- Road transport handles 90% of passenger and 70% of freight movement
- Tanzania's busiest transport routes handle 10$B in goods annually

Critical trade corridors move nearly 10 million tonnes and $10 billion in goods annually. Key routes—such as B129 (Dar es Salaam–Dodoma–Mwanza), A7 (Dar es Salaam–Mbeya), and A14 (Dar es Salaam–Arusha)—along with the vital A109, T4, T1, T3, T18, and T17 routes, underpin both commercial and mining freight flows.

Dar es Salaam Port serves as the primary freight hub, with the Central Corridor handling 30–50% of freight, and the TANZAM and Tanga routes managing 18–30%. This distribution of tonnage is projected to remain consistent until 2030.

Projected Climate Change in Tanzania

In 2022, Tanzania ranked 150th out of 191 in climate change readiness and 47th most vulnerable, primarily due to low agricultural yields, high dependence on farming, poor infrastructure, and limited access to clean water and sanitation. Climate hazards such as floods and droughts impact large parts of the population. In 2018, floods in Dar es Salaam alone caused $100 million in damages, while severe droughts over the past two decades have affected livestock, wildlife, and rainfed crops[4].

- Tanzania ranks 150th in climate change readiness
- Rising temperatures and changing rainfall patterns are the most relevant climate change indicators

Climate change projections indicate[4]:

- Rising temperatures, with monthly maximums increasing up to +2°C in the southwest and more frequent heatwaves.
- Increased extreme rainfall (+30%), especially in December–March, with more landslides in southern regions. However, some months (e.g., November, May, October) may see up to 20% less rainfall.
- Drought severity may slightly decrease due to higher annual rainfall, though consecutive wet days are expected to decline.
- Sea level rise and storm surges will intensify, leading to coastal flooding exceeding 2m in hotspots like Tanga.

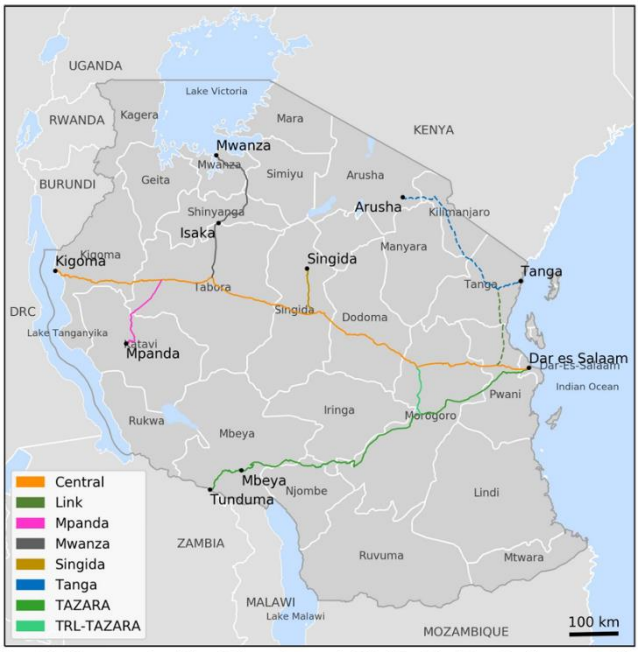
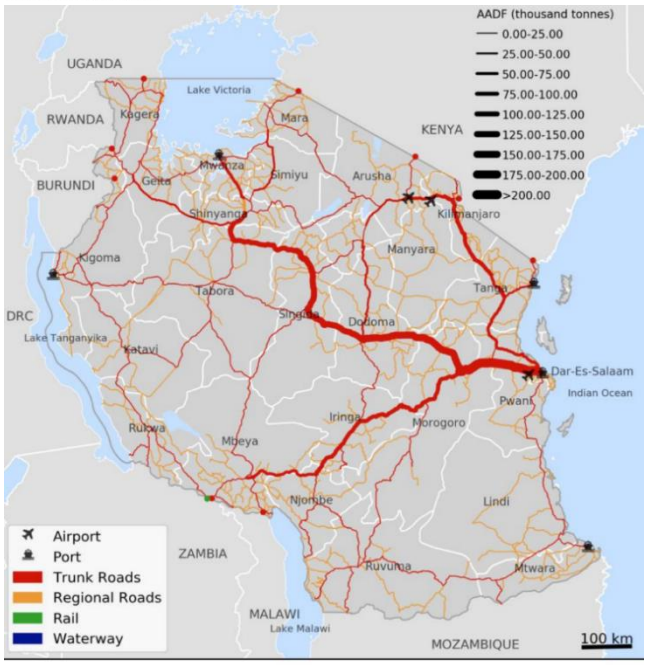
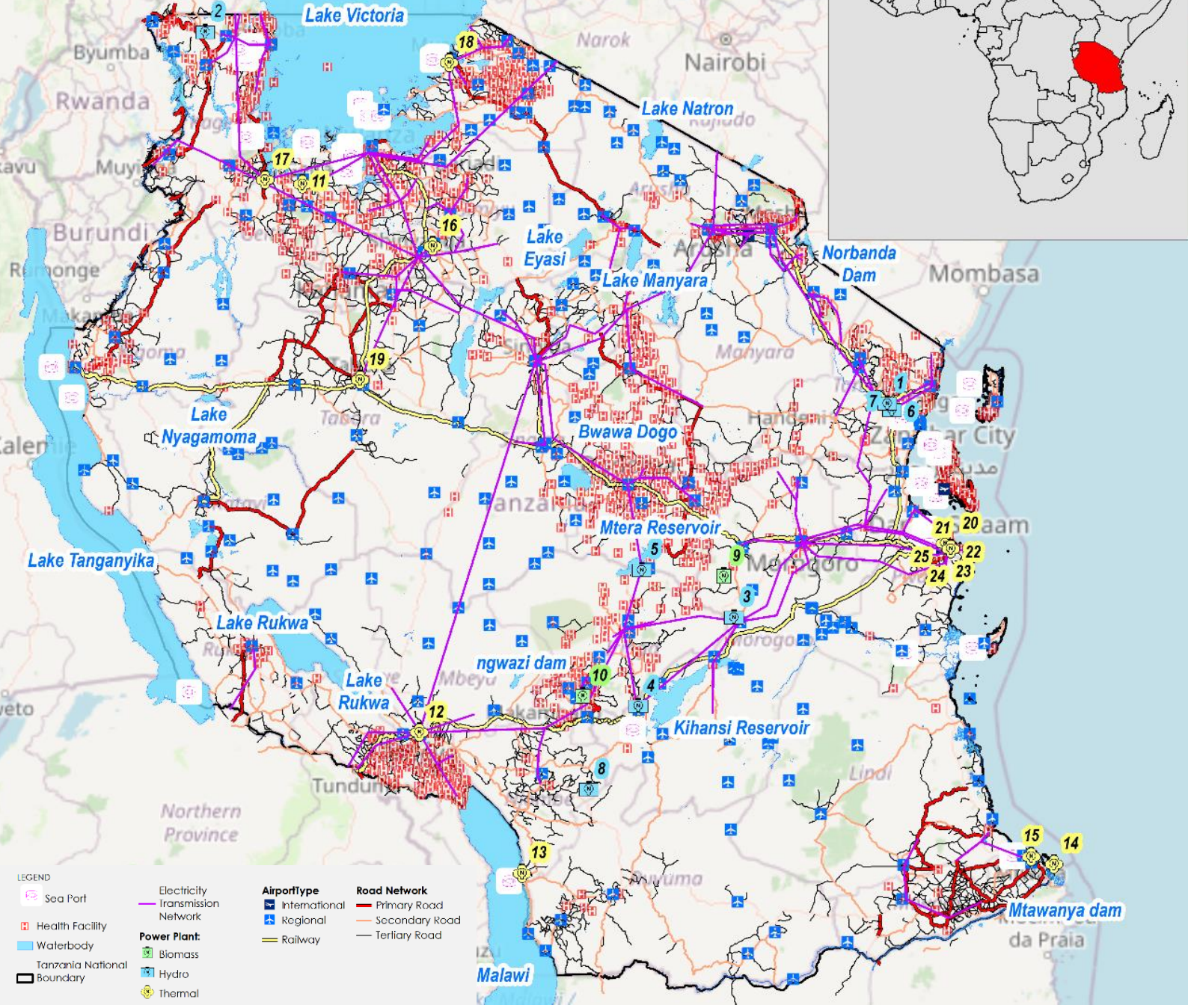


Figure 4-4: GIS representation of the main lines and stops on the United Republic of Tanzania railway network. The Link and Tanga lines as shown as dotted lines because they are out of commission (source: OIA created network from OpenStreetMap data).



Weighted flow representation of the AADF tonnages in 2030 estimated, under an

Figure 1. 3. Oxford Infrastructure Analytics. (2018)[3]



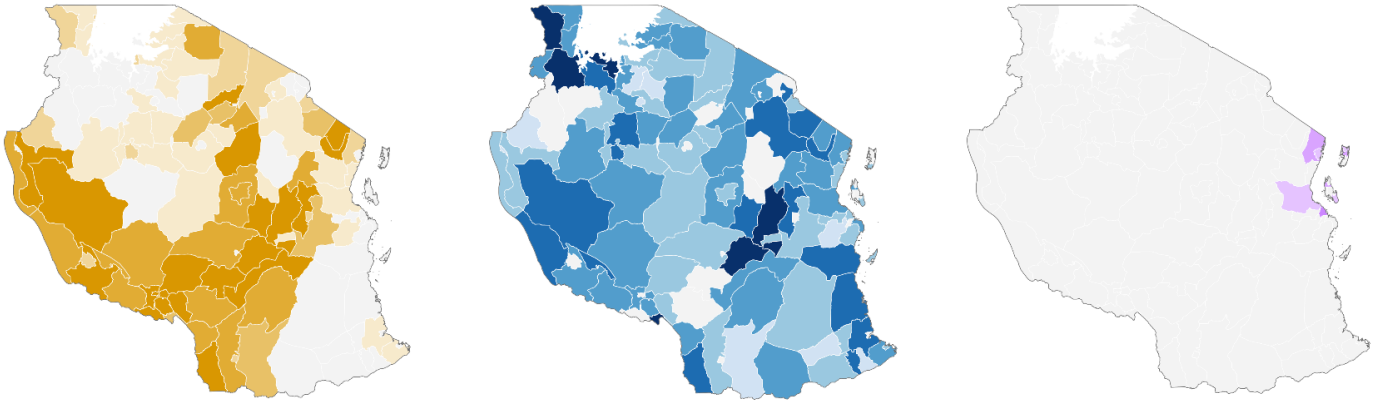


Figure 3. Landslide, River Flooding and Coastal Flooding risks to infrastructure, aggregated by region from low(lighter) to high(darker)

ND-GAIN Country Index rank

145

Score: 40.0

Vulnerability 0.504

Readiness 0.305

	Climate Related Hazards								
Country	River flood	Urban flood	Coastal flood	Wildfire	Landslide	Water scarcity	Extreme heat	Cyclone	Tsunami
Tanzania	High	High	High	High	Medium	Medium	Medium	Low	N/A

Figure 2. Global Climate Vulnerability Ranking and main climate hazard severity identified for Tanzania

CLIMATE RISKS ON TANZANIA'S TRANSPORT INFRASTRUCTURE

Climate-related impacts on Transport Infrastructure

According to recent estimates, **Climate-related disruptions to transport could reduce Tanzania's real GDP by up to 4% by 2050 under a dry/hot climate scenario–with proactive adaptation measures potentially mitigating this loss to 2.7–3%[2].**

Urban transport corridors in low-lying and densely populated areas, such as Dar es Salaam and Lake Victoria regions, are particularly vulnerable. These areas face not only physical damage but also economic losses from disrupted trade and freight flows, further affecting productivity and economic growth.

At the national-level, the annual damages to transport infrastructure are estimated at $108–109 million, projected to rise to $117 million by 2030 and up to $233 million by 2050 under a Business-as-Usual (BAU) scenario, with higher costs under RCP 8.5[2].

- Climate-related disruptions could reach losses up to 4% of GDP by 2050
- Annual damages to Transport Infrastructure could double by 2050, up to $233 M

Direct Risks to Road Infrastructure

Estimated Annual Damages on road infrastructure will two to four-fold by 2080, from $5 M today to $10-20 M for the RCP 4.5 and 8.5 scenarios, respectively.

By 2050, these cumulative losses are valued at $865 million, equivalent to 104% of the current road network, suggesting that without climate-proofing, the extent of road damage may match the entire existing network.[1]

Key Risk hotspots include:

- Coastal areas in the north-east side of the country will be particularly impacted by coastal flooding in 2050. These could severely impact key infrastructure like Tanga and Zanzibar ports, cutting off transport and freight movement.
- River flooding consistently impacts most of the regions of the country, and specially Lake Volka regions and the central corridor west of Dar es Salaam.
- Landslides risk impact infrastructure in the south-west side of the country, affecting critical secondary routes to connect Dar-er-Salam with southern towns.

Figure 4 shows the top 10 most impacted road networks per region in terms of Estimated Annual Damages in 2050, highlighting further regional disparities.

Indirect Risks and Cascading effects on communities

Trade Disruptions: according to estimates, a 10% failure of key transport links can isolate up to 30% of origin–destination (OD) trips, while failures of 25–40% can isolate over 80–100% of transport flows, demonstrating the network's low robustness.

Freight rerouting costs are highest along the Central Corridor, reaching $800,000 per diverted flow. By 2030, under optimistic economic growth, these costs could rise to $2 million. Disruptions on the TAZARA rail route (Tunduma–Mbeya) may cost up to $1 million.

Economic impacts from flooding can reach $1.4 million/day in Tanga and $2.5 million/day in Kagera due to future fluvial flooding[3].

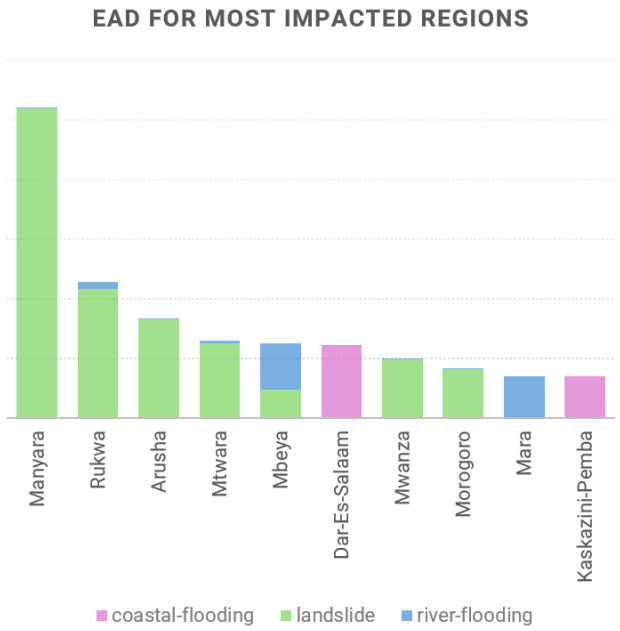


Figure 4. Estimated Annual Damages per region of Tanzania

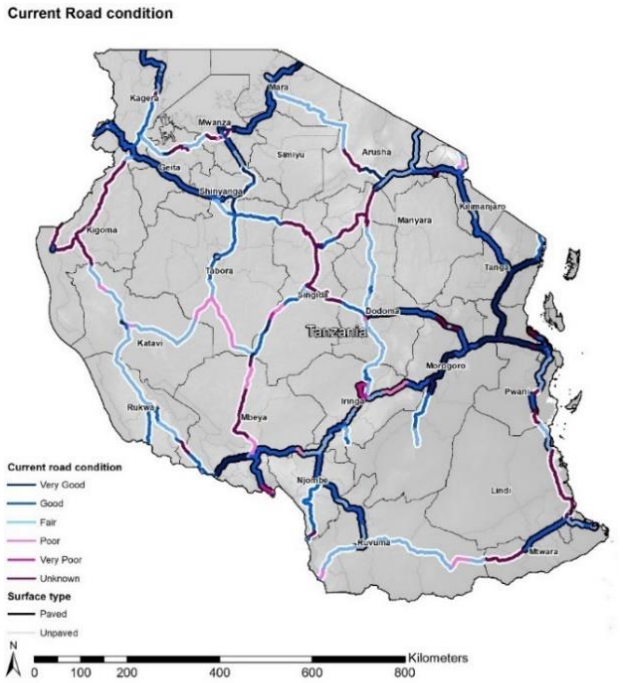
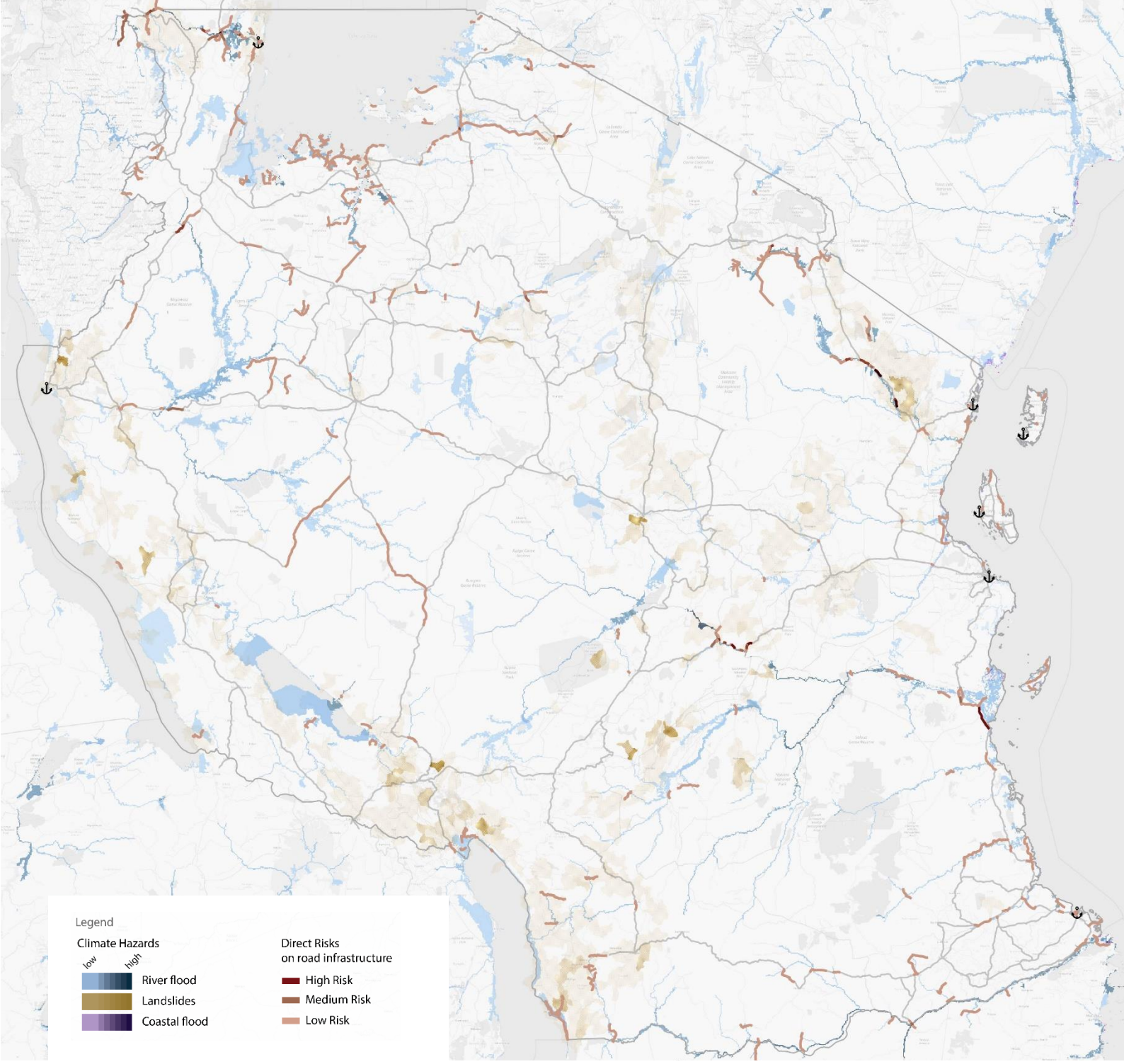
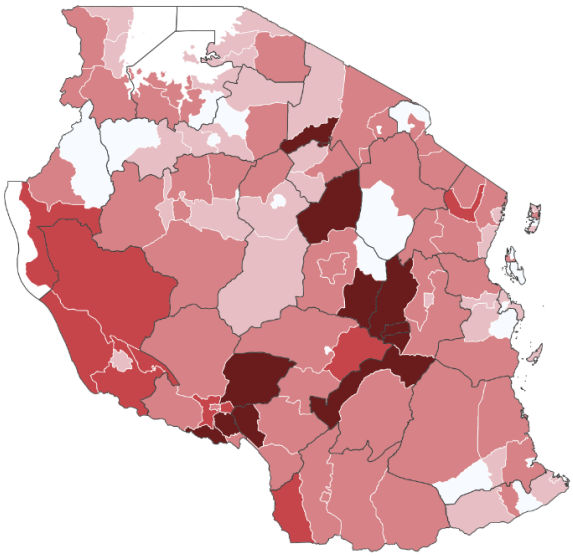


Figure 5. Road categorization in Tanzania





Total road risk accumulated per region

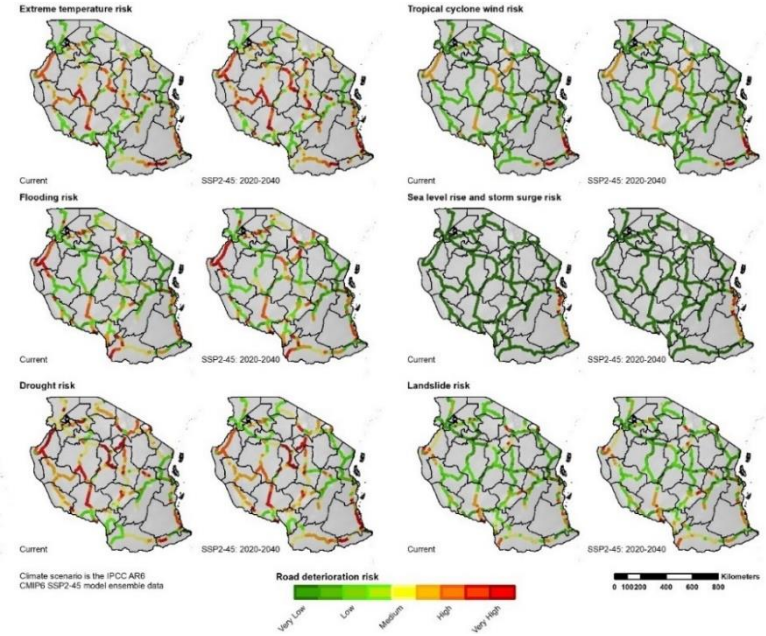


Figure 6. Key hazards and risks to road infrastructure in Tanzania

OPPORTUNITIES FOR FLOODPLAIN RESTORATION NBS INVESTMENTS

Assessing NbS opportunities for Tanzania's road network

Using The Global Tools for NbS[1], Tanzania's NbS opportunities were identified by linking three key climate hazards—coastal flooding, river flooding, and landslides—to targeted NbS interventions: mangrove planting, floodplain restoration, and slope reforestation.

Suitability for each NbS option was determined by evaluating local ecological conditions alongside the direct risks to nearby infrastructure. This analysis identified roughly 10.8 million hectares for floodplain restoration, 1 million hectares for slope reforestation, and 0.2 million hectares for mangrove restoration.

These areas are associated with over USD 300 million in direct damages to road infrastructure, highlighting the potential economic benefits of NbS interventions.

Defining a Pipeline of NbS investments

A pipeline of potential NbS investments was defined by assessing both the inherent opportunity for nature-based solutions and the criticality of existing infrastructure.

High-priority investments target corridors with substantial NbS potential along critical assets—particularly the key corridor between Dar es Salaam and major ports—where intervention can deliver maximum resilience and socio-economic returns.

Medium-priority projects focus on secondary road networks that, while offering high NbS opportunities, serve major population centers and connect to secondary ports.

Low-priority investments are identified within the tertiary network, where, despite high NbS potential and significant direct risks to road infrastructure, the scale of criticality is comparatively lower.

The Analysis shows that most of the NbS opportunities in Tanzania are related to slope reforestation, followed by floodplain restoration and Mangrove plantation.

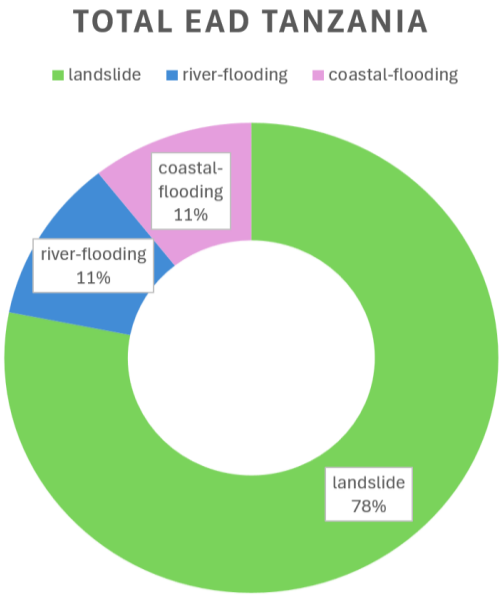


Figure 8. Distribution total Estimated Anual Damages for Tanzania

Figure 9. NbS typologies considered in Global Tools for NbS

NbS	Description	Risk-reduction	Co-benefits	Costs
Floodplain Restoration	Plant native trees, shrubs, and grasses along river banks to stabilize soils and reduce erosion.	Cuts bank erosion by ~20–40%; Can lower flood peak heights by approximately 30–50%. Benefit–cost ratios (BCRs) are reported in some cases to range from about 1.5 to 3	Enhances riparian habitat, modest carbon sequestration, improves water quality, boosts aesthetics and recreation.	~$100–$300/ha initial investment; maintenance at 0.5–1.5% of capital cost; benefit–cost ratios (BCRs) ~1.5–3.
Mangrove Restoration	Re-establishes coastal mangrove forests through replanting, protection, and hydrological rehabilitation to recreate natural coastal buffers.	Attenuates wave energy by up to ~50%, reducing coastal erosion. BCRs are variable (~1.5 in favorable settings).	High blue carbon storage (3–4× that of terrestrial forests), nursery habitat for fisheries, improved coastal water quality, recreational benefits.	Low-to-moderate costs (often tens of dollars/ha/year);
Slope Reforestation	Plant native, deep-rooted trees and ground cover on unstable slopes to bind soils and prevent erosion/landslides.	Can lower erosion and landslide risk by approximately 60–80% in appropriate sites. BCRs range from 2 to 4	Enhances soil stability and fertility, increases water retention, sequesters carbon, and supports biodiversity.	Typically ~$100–$500/ha;

Figure 10. NbS Opportunity Areas[1]

PIPELINE OF NBS PROJECTS FOR CLIMATE RESILIENT INFRASTRUCTURE

#	Project	NbS	Infra Criticality	Investor Type	EAD by 2050	Avoided Damages	ROI	Accumulated Carbon	Biodivers. Index	Population
1	**B129 road at Dodoma**	**Slope Reforestation**	High	BIODIV	925K	324K	2.2	30K	**0.54**	7K
2	**B3 road at Igunga**	**Slope Reforestation**	High	ROI	154K	54K	**6.1**	40K	0.52	19K
3	**Tanga Port Access road**	**Floodplain restoration**	High	BIODIV	137K	27K	1.9	**2.9M**	**0.54**	**36K**
4	**Zanzibar urban roads**	**Mangrove planting**	High	CARBON	39K	8K	2	**1M**	0.52	**902K**
5	**A7 near Iringa**	**Slope Reforestation**	High	EAD	**6.68M**	2.34M	3	34K	0.48	1K
6	**A104 at Mbeya**	**Slope Reforestation**	High	EAD	**8.94M**	3.13M	3.7	37K	0.44	35K
7	**A104 at Lake Manyara**	**Slope Reforestation**	Medium	BIODIV	3.87M	1.35M	2.1	25K	**0.53**	**45K**
8	**B8 at Uvinza**	**Slope Reforestation**	Medium	ROI	1.51M	528K	**5.4**	175K	0.46	17K
9	**A104 at Mtera**	**Slope Reforestation**	Medium	EAD	**6.90M**	2.42M	2.3	96K	0.48	9K
10	**B182 at Kayanga**	**Floodplain restoration**	Low	ROI	386K	77K	3.9	73K	0.51	6K
11	**B2 at Lindi**	**Floodplain restoration**	Low	CARBON	281K	56K	3.2	**1.2M**	0.43	7K
12	**B8 at Panda**	**Slope Reforestation**	Low	ROI	1.09M	381K	**4.9**	116K	0.47	9K

Figure 11. Pipeline of NbS Investments for Climate Resilient Infrastructure

The Pipeline for NbS investment in Tanzania is directed to ensuring that most critical risks are addressed with the most viable NbS projects, according to different investment types: EAD-focused, Carbon-focused, Biodiversity-focused, and ROI focused.

- **EAD-focused**: Prioritizes projects with the highest risk reduction and avoided damages.
- **Carbon-focused**: Targets interventions with significant carbon sequestration and climate benefits.
- **Biodiversity:** focuses on increasing the biodiversity index within the entire watershed, comparing before and after the implementation of the NbS solution
- **ROI-focused**: aims to understand the potential return on investment for the different NbS adaptation measures, when considering implementation costs, avoided damages and other financial returns.

Project 1, B129 road at Dodoma, is a Biodiversity-focused initiative that employs slope reforestation in a high criticality area. With an EAD of 925K and 324K in avoided damages, its modest ROI of 2.2 is complemented by 30K of accumulated carbon and a high biodiversity index (0.54), supporting local populations of around 7K.

Project 2, B3 road at Igunga, demonstrates strong financial promise. As an ROI-focused slope reforestation project, it delivers a standout ROI of 6.1 while reducing EAD by 154K and avoiding 54K in damages. The associated carbon benefits (40K) and robust local impact (19K population) underscore its viability.

Project 3, Tanga Port Access road, shifts the focus to floodplain restoration under a Biodiversity focus. Although its ROI is lower at 1.9, it excels in accumulated carbon benefits—reaching 2.9M—which reflects its substantial climate mitigation potential. Its high criticality is also evident with 137K EAD and 27K in avoided damages, supporting a community of 36K.

Project 4, Zanzibar urban roads, is a Carbon-focused mangrove planting initiative. Despite a lower EAD of 39K and avoided damages of 8K, it achieves a solid ROI of 2.0 while storing 1M in accumulated carbon. This project plays a key role in coastal protection for a densely populated area (902K).

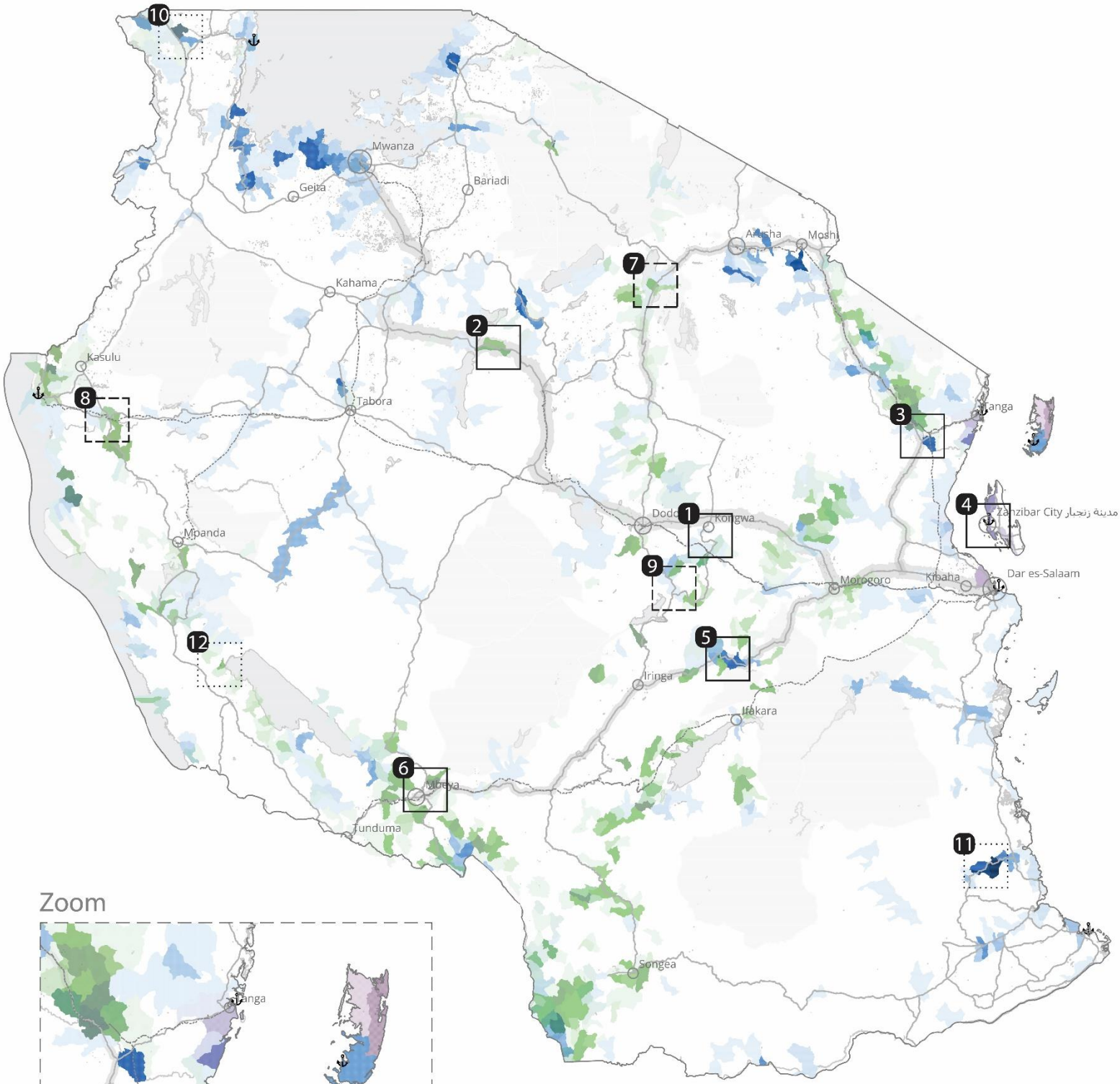
Projects 5, A7 near Iringa, 6, A104 at Mbeya, and 9, A104 at Mtera are EAD-focused slope reforestation projects. They exhibit very high avoided damages—from 2.34M to 3.13M—and EAD reductions ranging from 6.90M to 8.94M, even though their ROI values (between 2.3 and 3.7) are more moderate. These projects are critical for areas where infrastructure is most vulnerable to natural hazards.

Project 7, A104 at Lake Manyara, enhances ecological resilience with a biodiversity index of 0.53.

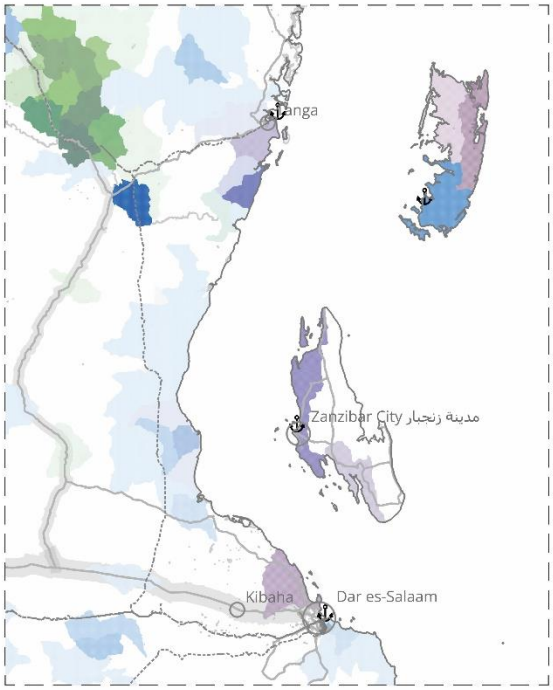
Project 8, B8 at Uvinza, and Project 12, B8 at Panda, deliver strong financial returns (ROI of 5.4 and 4.9, respectively) alongside significant risk reduction.

Project 10, B182 at Kayanga, further reinforces the ROI focus, and Project 11, "B2 at Lindi," strengthens the Carbon-focused portfolio with over 1.2M in accumulated carbon.

This prioritized pipeline strategically balances risk reduction, financial performance, climate benefits, and ecosystem integrity, ensuring that each intervention plays a distinct role in enhancing Tanzania's infrastructure resilience.



Zoom



Legend

NbS Investments

- High Priority Investments
  High NbS Potential + High Infrastructure Criticality
- Medium Priority Investments
  High NbS Potential + Medium Infrastructure Criticality
- Low Priority Investments
  High NbS Potential + Low Infrastructure Criticality

NbS Opportunity Areas

low — high

- Floodplain Restoration
- Slope Reforestation
- Mangrove Planting

Key Infrastructures

- Main Trade corridor
- Secondary Trade corridor
- Main Road Infrastructure
- Railway

Urban Areas and Population size

- 200K-500K
- 500K-1M
- 1M-5M+

UNLOCKING INVESTMENT IN NATURE-BASED SOLUTIONS

Mobilizing NbS Investment for Adaptation

Scaling financing for nature-based solutions to drive adaptation demands integrated strategies that leverage diverse financial instruments, tailored project management, and supportive policy frameworks—both globally and in regions such as Tanzania—especially given that NbS are pivotal for climate mitigation, resilience, and sustainable livelihoods, and UNEP estimates nearly $11 trillion is needed by 2050 (about $400 billion annually) compared to current levels of around $154 billion per year.

Firstly, not all NbS are equal from a finance perspective; most investments are in established sectors—such as agriculture, forestry, aquaculture, and tourism—with clear revenue streams (e.g., commodity sales, hospitality) that also boost community resilience. In contrast, innovative green infrastructure projects (like green buildings, water management, and mangrove restoration) struggle to monetize their broad adaptation benefits, while traditional conservation focuses solely on protecting nature. Each category requires tailored financial solutions—from blended finance to market-based approaches—to effectively manage its unique risks and opportunities (UNEP 2023).

Secondly, the inability to monetize adaptation benefits biases investments toward projects with traditional commercial or carbon returns. Although non-commercial gains (social and biodiversity) are attracting some premium, more than half of the nature funds studied focus on agriculture and forestry due to their favorable risk-adjusted returns. Standardized metrics, robust valuation tools, and greater investor disclosure on financial performance and impacts are key to unlocking broader market-based innovations for NbS.

Thirdly, NbS investments are complex, tailored, and require active management, often hindering scalability despite potential gains from standardization. Nature Funds deploy a mix of instruments—including equity, loans, mezzanine loans, and bonds—with advanced ESG features (e.g., covenants, impact-linked interest adjustments, carbon dividends). Typically executed in private markets, these illiquid investments span over five years, usually ranging from $5–50 million, and demand hands-on post-investment oversight. More standardized structures and metrics could help scale financing while still benefiting from specialized, blended finance solutions.

Fourth, DFIs, public finance, and blended finance are crucial in de-risking and catalyzing NbS investments. Nature Funds employ risk mitigation at both the fund level—using financial guarantees, first-loss or subordinate capital, and preferred returns—and the investment level—via technical assistance, stakeholder collaboration, and offtake agreements, alongside mechanisms like seniority, collateral, and additional guarantees. Many funds also provide dedicated technical assistance grants. With deep local knowledge and the ability to aggregate projects, DFIs bridge global and local markets by offering public concessional finance and mobilizing private capital for NbS adaptation, especially where resilience benefits remain unmonetized.

Fifth, private sector investment managers and specialized nature finance funds complement DFIs by deploying targeted, high-impact capital in niche areas, leveraging their expertise to overcome the complex barriers of NbS adaptation investments. While DFIs provide broad mandates and local insights, partnerships with these specialists enable landmark, replicable transactions and the development of pipelines linking viable projects to global capital. Despite their slower scale and relatively limited commercial capital, emerging market signals and growing investor demand highlight the need for supportive policies, regulations, and targeted blended finance arrangements that integrate nature into core business practices and catalyze nature-positive investments at scale.

Governance on NbS implementation in Tanzania

Tanzania has established a comprehensive governance framework to support nature-based solutions (NbS) for both environmental conservation and climate resilience, anchored by national policies and strategic plans that promote sustainable management of natural resources.

At the heart of these efforts is the Ministry of Natural Resources and Tourism, which coordinates with specialized agencies such as the Tanzania Forest Services Agency, the Tanzania National Parks Authority, and the Ngorongoro Conservation Authority. These institutions ensure that natural areas are managed effectively, blending conservation with sustainable development practices.

Key national policies—including the National Forest Policy Implementation Strategy (2021–2031), the National Biodiversity Strategy and Action Plan (NBSAP 2015–2020), and the National Climate Change Strategy—provide the regulatory basis for integrating NbS into both conservation and climate adaptation initiatives[7].

Strategic documents further detail the implementation of these policies. For example, the Forest Policy Implementation Strategy translates policy objectives into actionable plans that support sustainable land management, agroforestry, and ecosystem restoration projects. This clarity helps local authorities and communities understand their role in executing NbS projects while aligning with national conservation goals[6].

Climate finance plays a pivotal role as well. Tanzania leverages resources from international funds—such as the Green Climate Fund, the Global Environment Facility, and REDD+ initiatives—to support projects that enhance water security, restore degraded lands, and promote renewable energy. This funding not only advances climate adaptation but also supports sustainable economic development through NbS[8].

GLOBAL TOOLS FOR NATURE-BASED SOLUTIONS

Overview

Scaling investment in nature-based solutions (NbS) is crucial for tackling climate change impacts on Infrastructure systems while promoting sustainable development. The Global Center on Adaptation (GCA), in collaboration with Oxford's Program for Sustainable Infrastructure at the University of Oxford, has developed the Global Tools for NbS, an initiative funded and led by GCA and grounded in Oxford's research on infrastructure systems resilience. This initiative aims to accelerate NbS investment and enhance climate-resilient infrastructure.

The Global Tool addresses data gaps by 1) assessing and pricing climate risks to infrastructure, 2) quantifying the protective value of nature-based assets, and 3) identifying NbS investment opportunities. By providing actionable data to policymakers, financial institutions, and investors, the tool supports integrating NbS into infrastructure planning, mobilizing adaptation investments, and embedding resilience globally.

Key Features of the Global Tools for NbS

The Global Tools for NbS have 3 major modules that give a comprehensive view on NbS opportunities for Climate Resilient Infrastructure, and multi-criteria prioritization of adaptation options. The tool is structured around three core components:

1. Global Climate Risk Screening of Infrastructure Assets Assesses the vulnerability of road, rail, and energy transmission networks to climate-related hazards, by integrating global datasets (e.g., coastal/river flooding, landslide risk) with Oxford's National Infrastructure Systems Model (NISMOD) to evaluate risks under different climate scenarios (RCP4.5 and 8.5) across timeframes (2030, 2050, 2080) and various return periods.

Key Outputs: Maps identifying climate risk hotspots for current and future scenarios; Global and asset-specific estimates of Annual Damages

2. Global NbS Opportunity Scanning for CRI Identifies potential areas where NbS can reduce climate risks to infrastructure, by utilizing advanced landcover and coastal datasets alongside algorithms to pinpoint opportunities for:

- Mangrove Restoration (reducing coastal flooding),
- Floodplain Revegetation (mitigating river flooding),
- Slope Reforestation (reducing landslide risk).

Key Outputs: Maps of suitable areas for each NbS option based on geographical and ecological conditions; Spatial indicators quantifying the potential maximum risk reduction

3. Global Multicriteria Prioritization of NbS for CRI Supports investment decisions by comparing NbS implementation costs with their benefits and co-benefits, by combining quantitative data (e.g., Infrastructure Value at Risk, carbon credits, biodiversity enhancements) with qualitative criteria in a cost-benefit framework.

Key Outputs: A color-coded Global NbS Prioritization Map (red, amber, green) highlighting areas with the highest return on investment; A multi-criteria prioritization table to guide stakeholders in selecting bankable NbS opportunities.

Path Forward: Scaling Investment in NbS

By providing robust analyses of climate risks, NbS suitability, and cost-benefit scenarios, this tool empowers governments, financial institutions, and private investors to make informed, targeted investments. The goal is to drive a global transition toward more sustainable and climate-resilient infrastructure systems, with the technical release event serving as a pivotal platform for stakeholder engagement and adoption of NbS strategies.

	How are Infrastructure Assets impacted by climate change?	*Where do NbS solutions have potential for risk reduction on Infrastructure Assets?*	*How do I prioritize a bankable pipeline of NbS investments for Climate Resilient Infrastructure?*
	1.Global Climate Risk Screening of Infrastructure Assets	**2.Global NbS Suitability Mapping tfor CRI**	**3.Global Multicriteria prioritization of NbS for CRI**
Capabilities →	Climate Risk Screening of Global Road, Railway and Energy Transmission Infrastructure for: • Coastal flooding • River flooding • Landslides	Assessment of suitability and risk reduction potential of 3 NbS solutions for Global Infrastructure Assets: • Mangrove restoration • Floodplain revegetation • Slope reforestation	Global multi-criteria screening and prioritization of effective NbS solutions for CRI, including: • Global costs of NbS Implementation • Indicator of Risk Reduction Potential • Estimated Carbon-market revenues • Co-benefits (biodiversity, etc)
Outputs →	**Global Hotspot Mapping of Climate Impacts on Infrastructure**, including Expected Annual Damages per asset, for different climate scenarios (RCP4.5/8.5) and return periods (2-100 years)	**Global NbS Suitability Scanning Maps** for Climate Resilient Infrastructure	**Global NbS Prioritization Maps and Multi-Criteria Table of NbS for CRI**, and Screening of a potential pipeline of Bankable NbS projects at the watershed and country level

Figure 12. Overview Global Tools for NbS

BIBLIOGRAPHY

1. **Own analysis, from Global Tools for Nature-based Solutions**. Oxford University & Global Center on Adaptation. Retrieved from https://global.infrastructureresilience.org/view
2. **The World Bank Tanzania CCDR**: World Bank Group. (2024). *Tanzania Country Climate and Development Report*. World Bank Group. https://hdl.handle.net/10986/42483
3. **Oxford Infrastructure Analytics**. (2018). Transport Risk Analysis for the United Republic of Tanzania – Systemic Vulnerability Assessment of Multi-Modal Transport Networks
4. Global Center on Adaptation. (2024, November 18). **National Infrastructure Rapid Stress Tests and Climate Adaptation Policy-Decision Support: Climate Change Analysis and Rapid Infrastructure Systems Climate Risk Screening: Tanzania** [Report]. Global Center on Adaptation.
5. The Global Center on Adaptation (2024, December 06). ***Climate-resilience and adaptation options for the Second Intermodal and Rail Development Project (Tanzania):*** *Adaptation and resilience investment options and financing rationale report* [Report]. Global Center on Adaptation. In partnership with the World Bank; Consultants: Pegasys.
6. **National Forest Policy Implementation Strategy (2021–2031):** Government of Tanzania. (2021). National Forest Policy Implementation Strategy (2021–2031). Retrieved from http://maliasili.go.tz
7. **National Biodiversity Strategy and Action Plan (2015–2020):** Convention on Biological Diversity. (2015). National Biodiversity Strategy and Action Plan (2015–2020). Retrieved from https://www.cbd.int
8. **Nature-Based Solutions in Sub-Saharan Africa for Climate and Water Resilience**: NatureBasedSolutions.org. (n.d.). Nature-Based Solutions in Sub-Saharan Africa for Climate and Water Resilience. Retrieved from https://naturebasedsolutions.org