

# DRIVING FINANCIAL INCLUSIVITY AND SUSTAINABLE INFRASTRUCTURE DEVELOPMENT THROUGH GREEN INDUSTRIALISATION: A ROADMAP FOR NAMIBIA

Fortune Simataa<sup>1</sup>, Maano Nepembe<sup>1</sup>

Department of Strategy & Business Development, Development Bank of Namibia, Namibia  
Email: FSimataa@dbn.com.na, MNepembe@dbn.com.na ORCID ID: 0009-0009-0534-4252

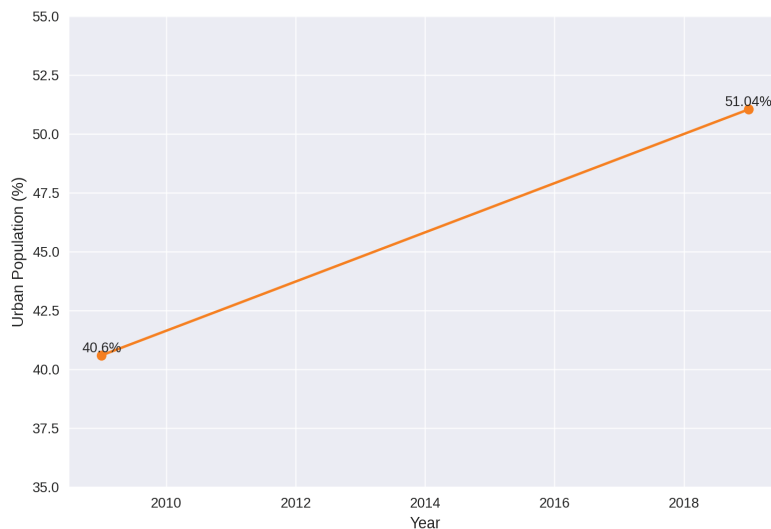
## ABSTRACT

This paper explores the Development Bank of Namibia's (DBN) role in addressing the country's social, economic, and environmental challenges. It focuses on how the DBN promotes inclusivity, sustainable infrastructure, and green industrialisation. Through a systematic review of academic literature, government policies, and DBN's strategic plans, the study assesses the bank's developmental impact. It highlights DBN's support for marginalised communities and its financing of large-scale infrastructure projects exceeding N\$1 billion. The paper also examines DBN's contribution to green industrialisation via innovative financing mechanisms that advance clean energy and climate resilience. By situating Namibia's development goals within broader global and regional sustainability frameworks, the study identifies best practices and local opportunities for transformative investment. It demonstrates how Namibia can leverage targeted financing and coordinated action to accelerate inclusive and sustainable growth. Key recommendations include enhancing policy coherence, strengthening stakeholder collaboration, and investing in capacity-building to support the country's sustainability objectives. Ultimately, the paper presents a strategic roadmap for environmentally responsible development that integrates social equity and economic advancement. It contributes to ongoing debates on development finance and offers actionable insights for aligning Namibia's financial institutions with its long-term sustainability vision.

**Keywords:** Inclusivity, sustainable infrastructure, green industrialisation, renewable energy, socio-economic development, climate resilience, Development Bank of Namibia (DBN).

## INTRODUCTION

This study aims to examine how development finance strategies, most particularly those implemented by the Development Bank of Namibia, can enhance financial inclusion and support sustainable infrastructure development. The focus of the study is on leveraging green industrialisation, climate finance, and innovative funding mechanisms to unlock inclusive economic growth. Namibia faces critical socio-economic challenges, including high income inequality, underdeveloped infrastructure, and climate vulnerability. These obstacles require innovative, sustainable solutions to foster inclusive growth and resilience. A cornerstone of the Namibian government's strategy is green industrialisation, emphasising renewable energy—particularly green hydrogen—as a catalyst for transformation. Through the Green Hydrogen Programme, Namibia aims to diversify its economy, generate employment, reduce poverty, and promote environmental sustainability. Rapid urbanisation compounds these challenges. Namibia's green hydrogen economy presents a transformative opportunity for sustainable industrial growth. The DBN's strategy is aligned with this agenda through its project pipeline development and potential funding structure. The DBN's small and medium enterprise (SME) portfolio covers over 1 200 enterprises across all the regions. This is a key metric in broadening financial inclusion through industrial financing.



Between 2009 and 2019, Namibia's urban population increased from 40.6% to 51.04% straining infrastructure and services. Urban issues, including inadequate housing, youth unemployment, and informal settlements, underscore the need for inclusive urban development strategies.

**Figure 1:** Urbanisation trends in Namibia (2009 - 2019)

Innovative initiatives, such as the Inclusive Urban Campus (IUC) collaboration between the Namibia University of Science and Technology (NUST) and the University of Tampere (UTA), aim to integrate housing, commerce, and community institutions, promoting socio-economic development. These efforts align with the DBN's Integrated Strategic Business Plan (ISBP) 2024–2029, which bridges gaps between infrastructure, inclusivity, and green industrialisation.

This study aims to evaluate how green industrialisation can serve as a catalyst for inclusive finance and sustainable infrastructure development in Namibia, with specific attention to the Development Bank of Namibia's strategic role.

## RESEARCH METHODOLOGY

The information from the systematic literature review that explored inclusivity, sustainable infrastructure, and green industrialisation as key themes driving Namibia's socioeconomic development was analysed against the DBN's role in aligning its initiatives with Namibia's developmental priorities.

### Data Collection

The information analysed in this paper was gathered from multiple credible sources. Peer-reviewed articles provided global and regional insights into inclusivity, sustainable infrastructure, and green industrialisation. The DBN's Five-Year Integrated Strategic Business Plan (2024–2029) and related investment data served as primary sources to understand the bank's strategies and priorities. Key documents such as the Namibia Green Industrialisation Blueprint (2024) offered contextual insights into national strategies. Also, publications from international organisations, including reports on renewable energy and infrastructure development, were reviewed to provide broader perspectives. The selection criteria include materials directly addressing inclusivity, sustainable infrastructure, and green industrialisation. To ensure credibility, priority was given to peer-reviewed articles, official documents, and industry reports. Finally, the review focused on sources published after 2015 to ensure alignment with current trends and policies.

## SYSTEMATIC LITERATURE REVIEW RESULTS

### Inclusivity

Inclusivity is a fundamental component of sustainable economic growth, fostering a more equitable and resilient society. The World Bank (2018) highlights the crucial role of marginalised groups such as women, youth, and SMEs in driving economic progress. In Namibia, however, significant barriers—such as limited access to finance, inadequate infrastructure, and systemic inequalities—often hinder the full participation of these groups in economic activities (IMF, 2021). The Development Bank of Namibia has played a pivotal role in addressing these barriers through a variety of targeted initiatives aimed at fostering inclusivity.

In the International Symposium on Biopolymers (ISBP) 2024–2029, the DBN emphasises integrating underserved groups into the economic mainstream. This aligns with the views of Gibb and McNulty (2020), who argue that tailored financial products can significantly enhance marginalised groups’ involvement in key economic sectors. A diagnostic study conducted by DBN in 2023 further highlighted challenges and opportunities in advancing inclusivity. The study emphasised significant gender disparities in access to finance, with many women entrepreneurs relying on personal savings or informal loans to start their businesses.

It identified barriers such as restrictive collateral requirements, a lack of tailored financial products, and inadequate financial literacy programmes, particularly among women entrepreneurs in rural and underserved regions. The study also revealed four distinct personas of women entrepreneurs, ranging from micro-entrepreneurs operating informal businesses to large-scale enterprise owners venturing into male-dominated industries. These personas highlighted the diversity in financial needs and aspirations across the spectrum, emphasising the necessity for the DBN to adopt a segmented approach to product development and service delivery.

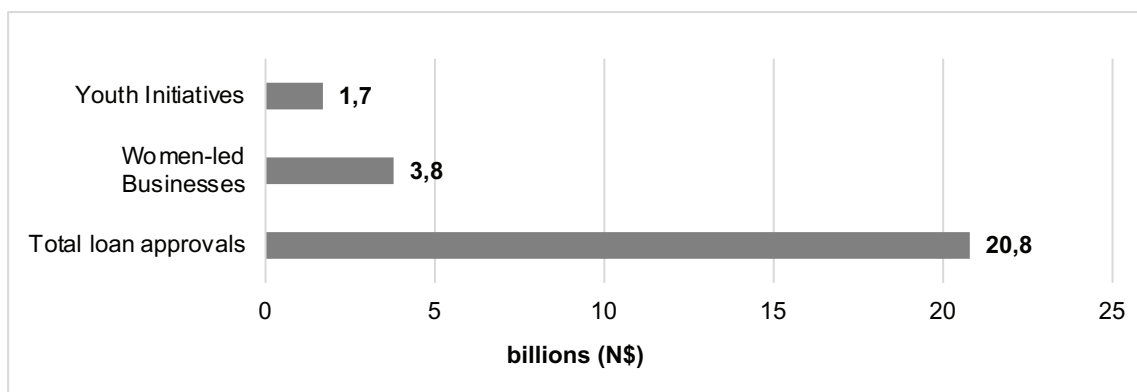
## DBN Initiatives

### ***Skills-Based Finance Facility:***

Introduced in 2020, this initiative approved loans totalling N\$19.2 million to support young professionals and artisans. By linking financing to skills development, it promotes youth employment and entrepreneurship.

### ***Empowering Women and Youth through Inclusive Finance Initiatives:***

Since inception, the DBN approved a total of N\$20.8 billion in loans, with N\$3.8 billion allocated to women-led businesses and N\$1.7 billion directed toward youth-led initiatives. While these amounts reflect significant progress toward addressing financial inclusion gaps, they collectively account for only approximately 26.4% of the total loan approvals. This highlights the need for continued efforts to bridge the disparity and ensure equitable access to financial resources for underrepresented groups, particularly women and youth.



**Figure 2:** DBN financial inclusion progress since inception in 2004

### ***EnterprenHer Facility:***

Launched in collaboration with the Ministry of Gender Equality, Poverty Eradication, and Social Welfare (MGEPESW) and UN Women, this initiative aims to support 500 women-led microenterprises over three years. By focusing on access to finance, markets, and business development services, it empowers women entrepreneurs to scale their businesses and contribute meaningfully to Namibia’s economy.

### ***Catalytic Funding and Emerging Industrialists’ Scheme:***

The DBN is committed to designing and implementing funding schemes worth N\$700 million to drive innovation and enhance competitiveness in new business sectors and value chains by March 2029.

The Emerging Industrialists' Scheme is particularly focused on unlocking “dead capital” and providing a specific lending product to support the growth and sustainability of emerging businesses.

### ***Socio-Economic Impact Goals:***

The DBN has set targets to create 25,000 jobs by 2029, ensuring 30% are for women, 20% for youth, 2% for marginalised groups, and 2% for people with disabilities.

### ***National SME Development Strategy:***

The DBN has implemented a national SME financing and development strategy, which consists of a Credit Guarantee Scheme, a Venture Capital Fund and a Mentoring and Coaching provider. This strategy enhances access to finance by removing common challenges faced by entrepreneurs: lack of collateral, lack of own contribution and lack of business skills.

### **Challenges**

Despite progress, challenges persist. In particular, many women entrepreneurs lack formal financial inclusion and face barriers in accessing credit due to stringent collateral requirements or biases regarding their creditworthiness. To address these, the DBN is developing non-financial services such as business management training and financial literacy programmes tailored to women's needs. The Bank also plans to explore blended finance models to enhance inclusivity. Additionally, partnerships with local and international stakeholders are being actively strengthened to broaden outreach and enhance service delivery. These collaborations aim to leverage additional funding and resources, ensuring that the DBN's inclusivity initiatives achieve far-reaching and sustainable impacts. By adopting innovative strategies such as microfinance, low-interest loans, and digital financial solutions, the DBN can significantly improve financial access for women, youth, and rural entrepreneurs. Apex lending models could also be explored to amplify these efforts, enabling a more structured and scalable approach to addressing financial inclusion challenges.

### **Sustainable Infrastructure**

Sustainable infrastructure plays a critical role in promoting economic growth, enhancing societal well-being, and ensuring environmental sustainability. It refers to infrastructure systems that are designed, constructed, and maintained in a manner that supports long-term economic, environmental, and social objectives. Globally, sustainable infrastructure is recognised as a cornerstone for achieving the SDGs, particularly Goal 9 (Industry, Innovation, and Infrastructure), which emphasises the need for resilient and inclusive infrastructure to drive economic growth and foster innovation (UN, 2015).

Additionally, sustainable infrastructure contributes to Goals 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), and 13 (Climate Action), underscoring its multifaceted impact on global development. In Namibia, the need for sustainable infrastructure development is particularly pressing owing to challenges such as inadequate access to basic services, regional disparities in development, and vulnerability to climate change. Sectors such as water, sanitation, electricity, and transportation face significant gaps in both capacity and quality (IMF, 2021). Addressing these challenges requires substantial investment, innovative financing mechanisms, and strong institutional frameworks. This review examines the concept of sustainable infrastructure, global and regional best practices, DBN's strategic role in Namibia, and the challenges and opportunities in advancing sustainable infrastructure development.

### **Global and Regional Context**

#### ***Green Technologies:***

A significant global shift towards renewable energy, such as solar and wind, is reducing carbon footprints and promoting energy independence. Innovations in energy storage and transmission are improving efficiency and accessibility, with governments worldwide offering incentives to support adoption. For instance, the development of low-cost concentrating solar power systems in sub-Saharan Africa has been explored to address electricity deficits (Ramde et al., 2020).

In Namibia, despite abundant solar energy potential, the deployment of renewables remains limited owing to high import costs and insufficient investment in energy storage. Without addressing these challenges, Namibia risks falling short of leveraging its natural advantages to achieve energy independence.

### ***Circular Economy:***

Countries such as South Africa demonstrate how aligning circular economy practices with sustainability goals can reduce resource dependency (Chioatto & Sospino, 2023). However, Namibia's progress is constrained by inadequate waste management infrastructure and low public awareness. While initiatives such as water recycling in Windhoek show promise, scaling such efforts requires stronger policy enforcement and greater public engagement to overcome these barriers.

### ***Nature-Based Solutions:***

Green infrastructure such as green spaces and wetlands supports climate resilience and biodiversity. In Africa, spatial planning and green infrastructure are key nature-based solutions to address climate change impacts (Sturiale & Scuderi, 2019). Namibia's efforts to protect its wetlands and implement green spaces in urban areas face similar challenges. The DBN can support these initiatives by financing urban development projects that integrate nature-based solutions, such as green spaces, and by investing in conservation programmes that address land degradation, aligning with its mission of promoting sustainable economic development.

## **Regional Trends in Africa**

### ***Decentralisation of Services:***

The decentralisation of water and sanitation services in African nations, such as community-led water management systems in Kenya (Lema, 2025), has improved access and created jobs. Namibia could benefit from similar approaches, especially in rural areas where service delivery is limited.

### ***Focus on Urban Infrastructure:***

Cities such as Kigali and Rwanda demonstrate the potential of integrated urban planning with smart technologies, green spaces, and modern transport systems (Pieterse et al., 2018). Namibia's urban centres, particularly Windhoek, lack similar advancements. The DBN could support urban development by funding projects that incorporate green technologies and efficient infrastructure, addressing the needs of a rapidly growing population.

### ***Investment in Renewable Energy:***

Renewable energy projects, such as the Lake Turkana Wind Power Project in Kenya (Ramde et al., 2020), showcase Africa's commitment to clean energy. Namibia, with its vast solar potential, lags behind in large-scale renewable energy investments. The DBN could play a transformative role by funding solar and wind energy projects, contributing to national energy security and climate goals.

## **Best Practices**

### ***Community Engagement:***

Involving local communities in infrastructure projects, as seen in community-driven housing programmes in South Africa (Tsoriyo, 2024), ensures developments meet actual needs and gain public support. In Namibia, similar participatory approaches could improve housing and rural development outcomes. The DBN could support this by financing community-driven projects and engaging stakeholders to foster inclusivity and ownership.

**Capacity Building:**

Training urban planners and policymakers on climate change adaptation in Southern Africa strengthens local expertise (Ziervogel, 2019). Namibia’s infrastructure projects often face challenges due to limited capacity. The DBN could address this by funding training programmes for local professionals and collaborating with educational institutions to build a skilled workforce for sustainable infrastructure management.

**Namibia’s Position**

**Climate Resilience:**

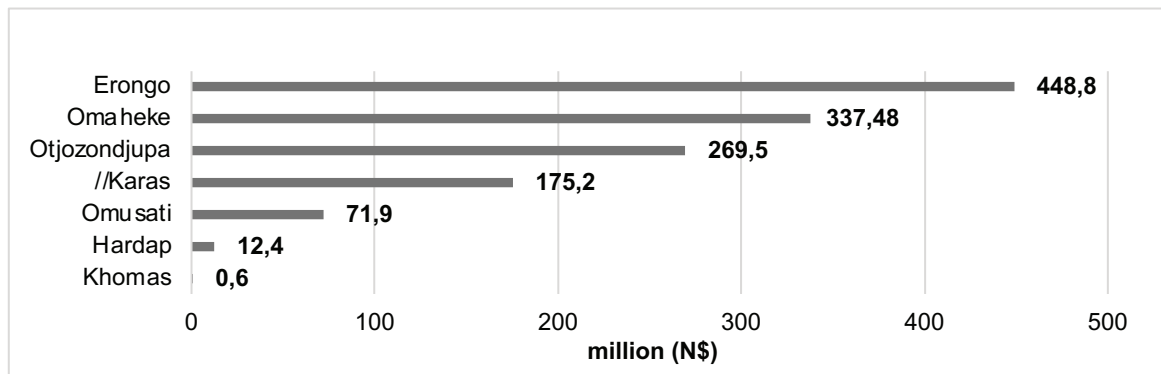
Namibia faces significant climate challenges, including water scarcity, heightened by erratic rainfall and prolonged droughts. Efforts such as the Integrated Water Resource Management and fog harvesting technologies are critical but require investment (Spear et al., 2018).

**Financing Gaps:**

Namibia faces financing gaps in infrastructure development, relying heavily on external funding. Innovative financing mechanisms, including public-private partnerships (PPPs) and blended finance, could address these gaps but need stronger policy frameworks (Savela, 2017).

**Sustainable Infrastructure: Renewable Energy Projects by DBN Since Inception**

The Development Bank of Namibia has played a pivotal role in fostering sustainable infrastructure through renewable energy investments. Since the first renewable energy project in 2014, the bank has approved a total of N\$1.3 billion for 21 projects across seven regions, marking a significant contribution to Namibia’s clean energy transition. Major projects financed by DBN include a 5MW Wind Farm in Lüderitz (N\$ 118.41 million), 5MW Solar Photovoltaic Power Plant in Gobabis (N\$ 84.37 million), and a 3.8MW Solar Photovoltaic Plant in Arandis (N\$ 84.32 million). Other notable investments include the establishment of a 4.5MW Photovoltaic Park near Omaruru (NAD 84 million) and a 5MWAC Solar Plant supplying electricity to Ohorongo Cement (N\$ 73.86 million).



**Figure 3:** DBN renewable energy funding (2014-2024)

In alignment with global best practices for sustainable financing, the DBN launched its Sustainable Finance Framework in 2023, which was reviewed and supported by an independent Second Party Opinion. The Framework is aligned with the Green Bond Principles (ICMA), the Green Loan Principles (LMA), and the Sustainability-Linked Bond Principles. These instruments provide the foundation for the DBN to mobilise capital through green bonds and sustainability-linked loans, particularly for infrastructure and industrial projects aligned to Namibia’s environmental and socio-economic development priorities.

The framework ensures clear use-of-proceeds criteria, impact reporting standards, and external verification, thereby increasing transparency and market confidence. Incorporating these instruments into the DBN’s broader financial structure provides a significant opportunity to unlock climate-aligned investment, reduce cost of capital for sustainable projects, and support Namibia’s green industrialisation strategy. To mobilise greater volumes of long-term capital for inclusive infrastructure and industrial development, the DBN will strengthen and diversify the financing toolbox, including blended finance.

Additionally, the use of PPPs and results-based financing mechanisms can enable shared-risk models that align incentives for service delivery and impact. The DBN's evolving approach includes exploration of apex financing models through intermediary institutions and co-financing arrangements with multilateral and regional development finance institutions. These strategies are essential for scaling industrialisation in line with Namibia's national development plans and the Sustainable Development Goals (SDGs). While the Development Bank of Namibia has achieved measurable progress, disbursing over N\$7.1 billion in infrastructure investments and supporting various national priorities, persistent gaps remain in reaching marginalised segments, particularly SMEs, women, youth, and rural communities.

### **Green Industrialisation**

Green industrialisation integrates economic growth with environmental sustainability, emphasising reducing carbon emissions, efficient resource utilisation, and equitable social outcomes. This approach aligns with global commitments such as the Paris Agreement and the SDGs, emphasising a transition to net-zero emissions while fostering inclusive development.

### **DBN's Commitment to Green Industrialisation**

The DBN has outlined a robust plan to drive green industrialisation as a key component of its 2024–2029 Integrated Strategic Business Plan. This initiative reflects the bank's commitment to aligning its funding priorities with Namibia's economic diversification and sustainability objectives. The DBN aims to prioritise lending for large-scale infrastructure projects exceeding N\$1 billion in critical sectors, including bulk water, sanitation, transport, electricity, rural transformation, and green industrialisation. These sectors are vital for advancing Namibia's SDGs while fostering economic resilience and environmental sustainability. By 2029, the bank plans to allocate over 50% of its total funding to infrastructure projects, demonstrating a strategic shift towards impactful and sustainable investments. Specifically, green industrialisation will be a key area of focus, with the DBN targeting the approval of N\$150 million in funding for projects within this sector by March 2026 (ISPB, 2024).

The DBN is driving Namibia's green industrialisation through its engagement with the Green Climate Fund programme. While still undergoing accreditation, the DBN has identified impactful projects worth \$50 million, focusing on renewable energy mini-grids for rural areas, energy-efficient lighting, waste-to-energy projects, and clean mobility solutions. By collaborating with partners such as the KfW Development Bank, the African Development Bank, the Namibian power utility, the Environmental Investment Fund, and the World Bank, the DBN addresses socio-economic and climate resilience priorities, solidifying its role in advancing sustainable development. To implement its green agenda effectively, the DBN is building sector expertise by appointing specialists in green industrialisation. These experts will lead project development, foster innovation, and strengthen partnerships to navigate the complexities of green financing and align initiatives with Namibia's sustainability roadmap.

### **Enabling Rural Transformation through Green Industrialisation**

Green industrialisation is poised to contribute significantly to rural transformation by integrating renewable energy, sustainable agriculture, and water resource management. Additionally, the bank supports initiatives for value addition in rural areas, such as processing facilities for agricultural products, which create local employment and strengthen community economies. These efforts align with the DBN's goal to support Namibia's transition to a low-carbon, inclusive economy, ensuring that rural areas are key beneficiaries of green industrialisation.

### **The Namibian Context**

Namibia's Green Industrialisation Blueprint (2024) positions the country as a leader in the global energy transition, leveraging its abundant solar and wind resources. Central to this strategy is the development of green hydrogen production, which aims to reduce dependency on fossil fuels, attract foreign direct investment (FDI), and create skilled employment opportunities. By investing in green hydrogen and other renewable technologies, Namibia is strategically poised to become a hub for sustainable energy solutions (Namibia Green Industrialisation Blueprint, 2024).

The country's industrial policy emphasises value addition to its natural resources, transitioning from raw material exports to fostering downstream industries. Investments in green hydrogen are expected to catalyse sectors such as ammonia production and green steel manufacturing, enhancing economic diversification and resilience (Rosendahl, 2010).

### **Global and Regional Trends**

Globally, green industrialisation is key to sustainable development, with countries such as Germany leading in solar photovoltaics (Brock et al., 2021). While green technologies offer immense potential, challenges such as regional disparities and environmental costs must be addressed. Namibia can learn from these experiences; nevertheless, it must ensure that its renewable energy transition is inclusive, addressing regional inequalities. The DBN can contribute by financing green industrial projects that are tailored to the unique needs of rural and underserved areas, ensuring equitable development. Namibia's membership in the African Continental Free Trade Area (AfCFTA) presents opportunities for regional collaboration in green industrialisation (Namibia Green Industrialisation Blueprint, 2024). By participating in regional renewable energy initiatives, Namibia could scale up production and strengthen supply chains. The DBN could play a critical role by financing cross-border green projects and facilitating partnerships with neighbouring countries to optimise renewable energy production and export.

### **Long-Term Socio-Economic Benefits**

#### ***Job Creation:***

Green hydrogen projects are projected to generate over 250,000 direct and indirect jobs by 2035. These employment opportunities will encompass roles across construction, operations, technology, and research, directly benefiting skilled and semi-skilled workers. The development of regional hydrogen valleys in Karas, Erongo, and Kunene will further enhance local employment, addressing Namibia's high unemployment rates, particularly among youth and marginalised communities (Namibia Green Industrialisation Blueprint, 2024).

#### ***GDP Growth:***

Namibia's green industrialisation agenda, particularly through its focus on renewable energy and green hydrogen, is expected to boost the nation's GDP significantly. By 2030, the green hydrogen sector alone is projected to add between 2% and 3% annually to Namibia's GDP (Namibia Green Industrialisation Blueprint, 2024).

#### ***Poverty Reduction:***

Increased access to affordable energy, coupled with rural electrification projects, will uplift marginalised communities, enhancing livelihoods and reducing poverty rates.

#### ***Increased Productivity:***

Transitioning to sustainable energy sources will reduce dependency on expensive electricity imports, potentially saving the economy N\$1.2 billion annually, thus redirecting funds toward other productive sectors.

#### ***Economic Multiplier Effects:***

Infrastructure investments, including the development of hydrogen valleys and renewable energy grids, will stimulate related sectors such as transportation, construction, and manufacturing, thereby amplifying GDP growth.

Namibia's green industrialisation efforts reflect a forward-thinking approach to economic growth and environmental stewardship. By leveraging its natural advantages, adopting global best practices, and addressing key challenges, the country is well-positioned to achieve long-term sustainability.

A focus on inclusive policies, strategic investments, and partnerships will be critical to ensuring that green industrialisation delivers broad-based benefits for Namibia and its neighbours—paving the way for a cleaner, greener, and more prosperous future. The literature review revealed the exploration of financial and economic inclusion initiatives, with the emphasis on marginalised groups. Also, the review reveals the global best practices, regional trends, and Namibia-specific challenges in infrastructure development. The review further examined Namibia’s renewable energy potential and the DBN’s role in driving industrial transformation.

Finally, Namibia’s vision for green industrialisation is increasingly anchored in the development of a globally competitive green hydrogen economy. The country has adopted a Green Hydrogen Strategy that aims to establish hydrogen valleys in the Karas and Erongo regions, producing green ammonia and hydrogen for export to European and regional markets. The strategy anticipates the creation of over 280 000 jobs, alongside significant foreign direct investment and infrastructure expansion. The DBN is expected to play a catalytic role in supporting infrastructure financing.

### **Study Limitations**

Owing to time constraints, this paper relies solely on secondary data, which may limit the depth of contextual nuances. Future studies could incorporate primary data collection, such as interviews with stakeholders, to enrich the analysis and broaden the scope of findings.

### **Challenges and Opportunities**

Namibia faces significant barriers to achieving its green industrialisation ambitions. These include the following:

#### ***Inadequate Infrastructure:***

Limited transport, energy, and water infrastructure hinder the development and scalability of green industrial projects.

#### ***Financing Gaps:***

Securing sufficient capital for large-scale green initiatives remains a challenge, necessitating access to international climate finance and innovative funding mechanisms.

#### ***Technical Expertise:***

A shortage of specialised skills in renewable energy and industrial technology highlights the need for capacity-building initiatives and training programmes.

Despite the potential of blended finance, green bonds, and sustainability-linked instruments, there are significant implementation challenges that must be addressed to realise their full impact. One major constraint is the limited pipeline of bankable projects, particularly those with robust environmental and social safeguards that qualify for sustainable financing. Furthermore, capacity gaps exist within local institutions, including insufficient technical expertise in structuring complex financial instruments. Additionally, the domestic capital market remains shallow, requiring reliance on concessional or anchor investment to de-risk early-stage infrastructure projects.

Despite these challenges, Namibia has substantial opportunities to lead in renewable energy innovation:

#### ***Renewable Energy Leadership:***

Namibia’s vast solar and wind resources provide a unique opportunity to become a regional leader in renewable energy innovation. Proposed projects, such as large-scale green hydrogen plants and solar energy installations, align with both domestic climate goals and global energy transition efforts.

By capitalising on these resources, Namibia can position itself as a supplier of low-carbon energy to international markets.

***Export Diversification and Value Addition:***

Green industrialisation opens pathways for Namibia to diversify its economy beyond raw material exports. By developing downstream industries, such as lithium refining and rare earth element processing, Namibia can increase the value of its natural resources, create jobs, and reduce vulnerability to global commodity price fluctuations.

***Public-Private Partnerships (PPPs) and International Collaboration:***

PPPs and strategic international partnerships will play a crucial role in mobilising the resources needed for green industrialisation. Collaborative agreements with key global players can secure technology transfers, market access, and funding for large-scale infrastructure projects. Additionally, aligning Namibia's industrial policies with international sustainability goals will maximise socioeconomic benefits and enhance its global reputation.

***Climate Leadership and Socio-Economic Transformation:***

Green industrialisation provides Namibia with an opportunity to lead in climate change mitigation in Africa. Implementing low-carbon technologies and achieving significant emissions reductions will not only enhance Namibia's environmental credentials but also catalyse socio-economic transformation. This includes creating thousands of high-skill jobs, fostering innovation, and improving energy security for the country and the broader Southern African region.

## **REVIEW OUTCOMES SUMMARY**

***Inclusivity Outcomes:***

The DBN has made targeted efforts to improve inclusive access to infrastructure finance. Since its inception, the DBN has approved loans amounting to N\$3.8 billion to support women-led businesses, effectively addressing significant financial inclusion gaps. Furthermore, N\$1.7 billion has been allocated to youth-led initiatives, promoting entrepreneurship and enhancing economic participation among young people.

A diagnostic study conducted in 2023 revealed that women entrepreneurs face systemic barriers, such as restrictive collateral requirements and limited access to tailored financial products. The DBN's targeted approach to product development is starting to bridge these gaps by providing inclusive financial solutions and increasing access for marginalised groups.

***Sustainable Infrastructure Investments:***

The DBN has pioneered renewable energy finance in Namibia and the disbursement of N\$1.3 billion in renewable energy investments spanning 21 projects across seven regions. These projects include the development of solar photovoltaic plants and wind farms, without which Namibia's transition to sustainable energy and green industrialisation would not be possible.

***Green Industrialisation Metrics:***

Green industrialisation combines economic growth with environmental sustainability by reducing carbon emissions, improving resource efficiency, and achieving social equity. The DBN has pledged to allocate over 50% of its funding to sustainable infrastructure by 2029, targeting N\$150 million for green industrialisation projects by 2026.

Milestones include the following: Lending for infrastructure projects over N\$1 billion in critical sectors such as water, sanitation, transport, and renewable energy; renewable energy initiatives funded through the Green Climate Fund, including rural mini-grids, waste-to-energy projects, and clean mobility transitions; partnerships with stakeholders such as KfW, AfDB, and NamPower to foster renewable energy adoption and advance urban sustainability; developing expertise in green industrialisation by appointing specialists to lead innovative projects and strategic collaborations; and promoting circular economy practices such as waste reduction and advanced solar technologies for scalable and sustainable outcomes.

The DBN's results align with global best practices on inclusivity and sustainability, addressing unique Namibian challenges such as rural financial access and the need for green industrialisation. Programmes such as the EnterprenHer Facility showcase effective strategies for empowering marginalised groups, while investments in renewable energy reflect regional trends in sustainable infrastructure development. Despite progress, challenges persist, including systemic barriers for women entrepreneurs and financing gaps in green industrialisation. Addressing these will require continued innovation, stronger partnerships, and expanded capacity-building initiatives.

## **RECOMMENDATIONS**

The DBN's work has laid the foundation for inclusive and sustainable economic growth. To build on this success, the following recommendations outline strategic actions to enhance the bank's impact. Firstly, expanding non-financial support services is key—providing tailored financial literacy and business training programmes for women, youth, and marginalised groups to strengthen their entrepreneurial capabilities.

Secondly, establishing mentorship initiatives will connect emerging entrepreneurs with experienced business leaders, creating a support network to help scale their ventures. Thirdly, blended finance models must be leveraged by collaborating with international climate funds to secure resources for green industrialisation projects, ensuring alignment with global sustainability goals. Furthermore, strengthening policy and advocacy efforts will be crucial. The DBN should advocate for regulatory reforms that simplify collateral requirements and support innovative lending mechanisms. Partnering with policymakers will help develop clear guidelines and incentives for sustainable infrastructure investments, paving the way for broader financial inclusion. In addition, enhancing rural outreach remains a priority. Deploying mobile banking services and customised financial products will expand access in rural areas, while collaboration with local organisations will address infrastructure gaps and provide tailored solutions for underserved communities. Moreover, to develop expertise in green industrialisation, specialised teams within the DBN should be established to identify, evaluate, and implement green industrial projects. Finally, investing in research and capacity building will ensure the bank remains at the forefront of renewable energy and industrial innovation, driving Namibia toward a more sustainable and inclusive future.

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