

# Namibia Earth2 Green Finance Brief: Carbon Sequestration & Credit Potential

Prepared by Cuttlefish Labs | July 2025

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## Executive Overview

This brief outlines the economic and environmental value of adding 10,000 square kilometers of newly vegetated land to Namibia through reforestation, agroforestry, and ecological restoration under the SIDAN framework. This initiative is central to positioning Namibia as a global leader in climate-positive development, regenerative land use, and sovereign green finance.

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## Scope & Assumptions

- **Target Green Area:** 10,000 km<sup>2</sup> (1,000,000 hectares)
  - **Climate-Appropriate Forest Models:** Native and coastal fog-capture species, beach grass corridors, desert-adapted rewilding zones
  - **Sequestration Rate:** ~7 tons of CO<sub>2</sub> per hectare per year (moderate tropical average)
  - **Carbon Market Price:** \$20 USD per ton (premium voluntary market)
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## Economic Model

### Annual CO<sub>2</sub> Capture

- **Total Sequestration:** 7,000,000 tons CO<sub>2</sub>/year

### Carbon Credit Revenue

- **Per Year:** \$140 million USD
- **30-Year Projection:** \$4.2 billion USD

These carbon credits can be tokenized via smart contracts under the Climate DAO, generating steady income for: - Reinvestment in green infrastructure - Payments to local land stewards - Repayment of green bonds - Public dividend programs

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# **Green Bond Framework**

## **Use Cases for Proceeds**

- Reforestation logistics & nursery expansion
- Desalination-linked irrigation aqueducts
- Monitoring, Reporting, and Verification (MRV) networks
- DAO-governed land token dividends

## **Proposed Instruments**

- Sovereign Green Bonds (10–30 year maturity)
- DAO-Secured Regeneration Notes
- Climate Credit Token Offerings (CCTO)

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## **Integration with Earth2Map & SIDAN**

The carbon zones will be: - Geospatially mapped on the Earth2Map system - Tokenized under land NFTs tied to credit production - Audited via automated MRV sensors (e.g. drone, satellite, AI image analysis) - Connected to aqueducts and fog-harvesting infrastructure

These assets are programmatically linked to: - ReFi smart contracts - Climate DAO governance tokens - Export-linked ESG metrics for partner nations

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## **Strategic Impact**

- \$4.2B in projected revenue over 30 years
- 7M tons of carbon offset annually
- Strengthened trade, investment, and ESG diplomacy
- New employment in carbon farming, forestry, and credit verification

Namibia stands poised to become a blueprint for green economic sovereignty.

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For use in: - SIDAN white paper - Earth2 investor decks - Green bond issuance

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