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SOUTH AFRICA 2025

Solidarity
Equality
Sustainability

Mapping finance solutions and instruments across the three bioeconomy types

GIB MEETING

Department of International Relations and Cooperation,

26 May2025

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	Nature Intensive Bioeconomy	Advanced Bioeconomy	Hi-Tech Bioeconomy
Explanation	The **Nature Intensive Bioeconomy** refers to an economic system that utilizes biological resources, processes, and principles to produce goods and services. It encompasses various sectors including **agriculture, forestry, fisheries, food and bioenergy**. The goal of the bioeconomy is to create sustainable economic growth, while reducing environmental impact and dependency on fossil fuels.	The **Advanced Bioeconomy** represents an evolution from traditional bioeconomic practices, focusing on the use of **innovative technologies and advanced biological processes to create value-added products**. It aims to address environmental and economic challenges by providing sustainable alternatives to fossil-based products and enhancing the efficiency and sustainability of production processes.	The **High-Tech Bioeconomy** refers to the segment of the bioeconomy focused on producing **high-value, specialized, and often technologically sophisticated bioproducts**. These products are characterized by their advanced functionalities, innovation, and higher market value compared to traditional bio-based or commodity goods.
Volumes	High, established volumes	Growing volumes as technology and market demand drive increased production.	Production in the **high-tech bioeconomy focuses on quality, precision, and specialized applications**, often resulting in lower but more valuable outputs.
Products including consumer preferences and cultural norms	Large quantity of goods – **in the main unprocessed nature products** for established markets, although growing context and impact-based differentiation	**Advanced bioproducts** (biofuels, biochemicals. biomaterials etc.) using other techniques than biotechnology and biomanufacturing	**High-Tech Bioeconomy products, driven by biotechnology and biomanufacturing**, include enhanced crops with superior nutrition and climate adaptability, high-performance bioplastics, bio-based nanomaterials, and custom organisms for industrial use.
Stage and level of investments	At a mature stage, with significant investments already made and is closely linked to traditional industries such as agriculture, forestry, and fisheries, although specific projects like forest restoration and socio-bioeconomy initiatives may still face considerable financing challenges.	At an evolving stage, characterized by continuous innovation and the development of new technologies. Investments are increasing as both public and private sectors recognize the potential for returns and environmental benefits.	At a dynamic evolving stage, attracting investments in R&D. The focus is on innovation, with funding from both public and private sectors to support cutting-edge biotechnology and biomanufacturing projects.
Location and associated comparative advantages	The bioeconomy has a prevalence across continents, benefiting from consolidated industrial value chains that provide comparative advantages in production and distribution.	Primarily driven by, located and benefiting more technologically advanced countries characterized by a greater access to technology, investment capital, and regulatory frameworks that support sustainable innovation.	Predominantly driven by technologically advanced regions with strong research infrastructure. These regions benefit from robust IPRs (intellectual property rights), a skilled workforce, and a supportive regulatory environment that fosters innovation and commercialization.
Policy and regulative context	Government policies on land use, sustainable practices, notably land tenure challenges	Policies on renewable energy, sustainable agriculture and forestry	Regulations on new technologies, Intellectual Property protection
Competitiveness now and into the future	Currently competitive and is expected to maintain or enhance its competitiveness in the future due to its established infrastructure and continued advancements in biotechnology and sustainable practices.	Poised to become increasingly competitive due to its focus on sustainability, resource efficiency, and the development of added-value products. Expected to play a critical role in transitioning to a low-carbon economy and addressing global challenges such as climate change and resource scarcity.	Highly competitive due to its focus on innovation and technological leadership. Expected to grow significantly as demand for specialized, sustainable, and high-performance bioproducts increases.

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Payment for Ecosystem Service

Sustainability-linked bonds

Green and Blue Bonds

Debt-for-Nature Swaps

Conservation Outcome Bonds

Biodiversity credit-linked bonds

Conservation Trust Funds

Environmental Funds
Outcome, Impact, Species, ESG

Conservation Fees

Sovereign & Multilateral Grants

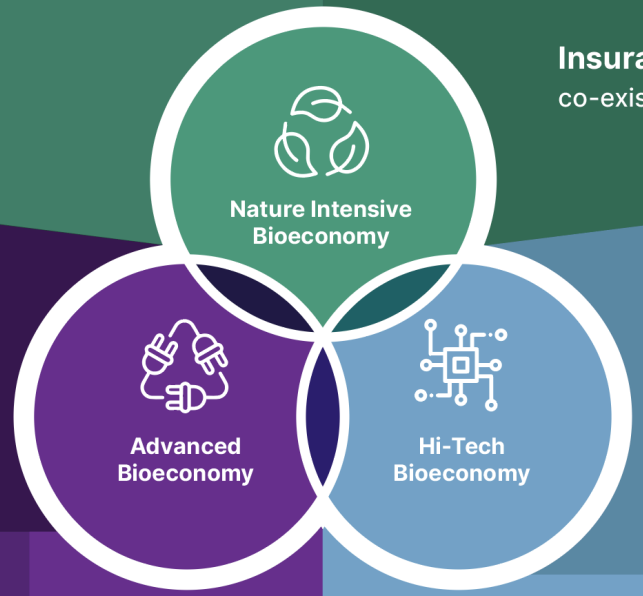
Grants and Subsidies
e.g., GEF, UN-REDD

Biodiversity Offsets
public and private

Carbon Markets & Biodiversity Credits

Blended Finance

Insurance products
co-existence, climate change



Venture Capital and Private Equity/Debt

Corporate Investment & Strategic Partnerships

IP & Licensing-Based Financing

Public-Private Partnerships
PPPs

Green and Climate Bonds

Green Public Procurement
Governments purchasing bio-based products and services throughout the public sector supply chain to stimulate demand, mainstream the bioeconomy and set new norms

Stock Market, IPOs and Licensing Agreements

Blended Finance

Bankable Projects
Investor Meet and Match

R&D Grants from Multilateral & National Agencies
(e.g., Horizon Europe, DARPA BioTech Office)

Technology Transfer & Licensing Agreements

Government Innovation Grants and Tax Incentives

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Harnesses the power of collective action to **mobilise money and expertise** to take finance solutions to scale.

Identifying the right **Finance Solution** for the right **Place** with the right **People**.

Take an identified finance solution from idea to **implementation** within clear **impact** parameters.

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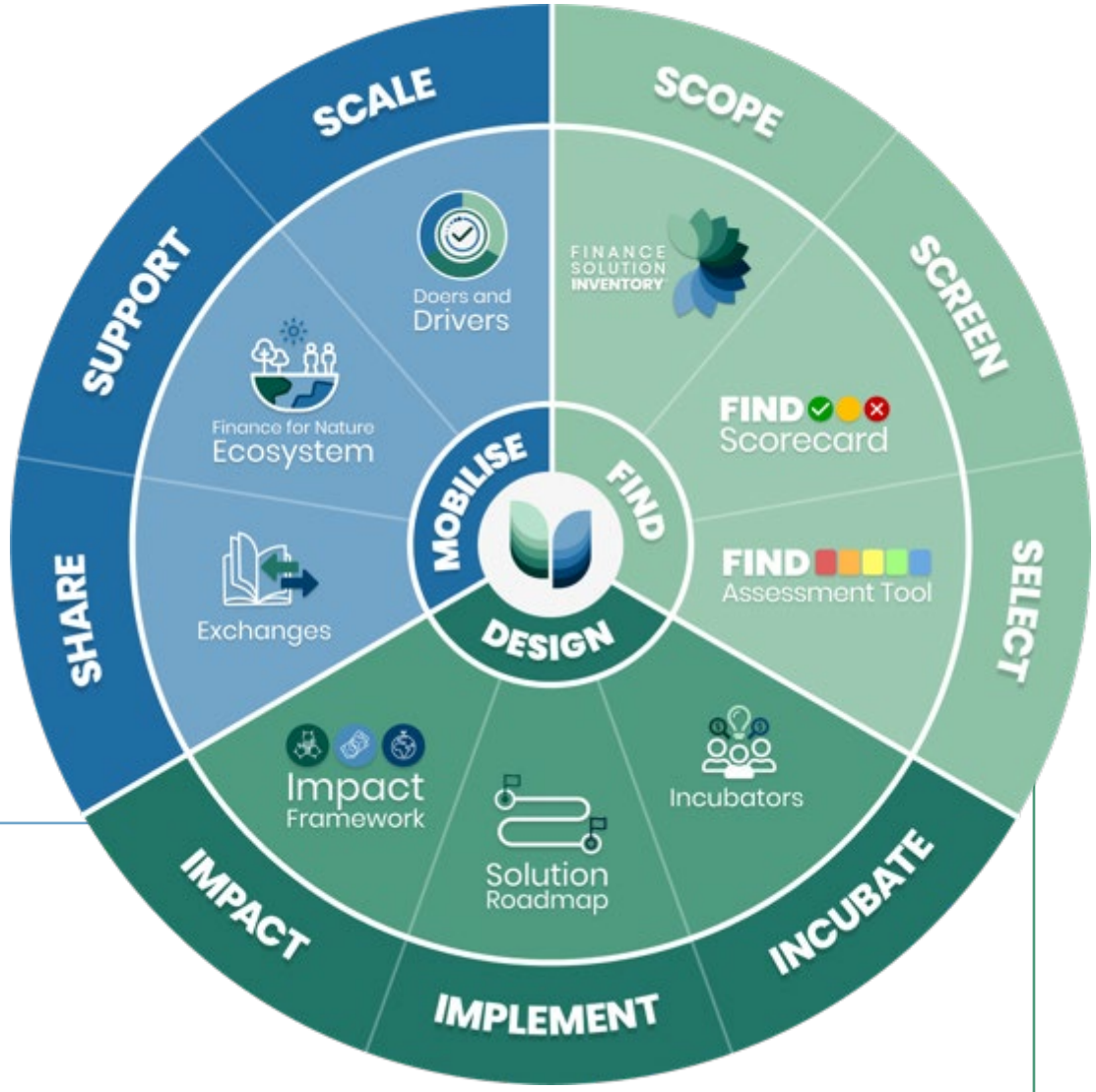

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Finance Solution INVENTORY©

A first-of-its-kind, African-led knowledge hub of Finance Solutions targeted toward conservation impact.

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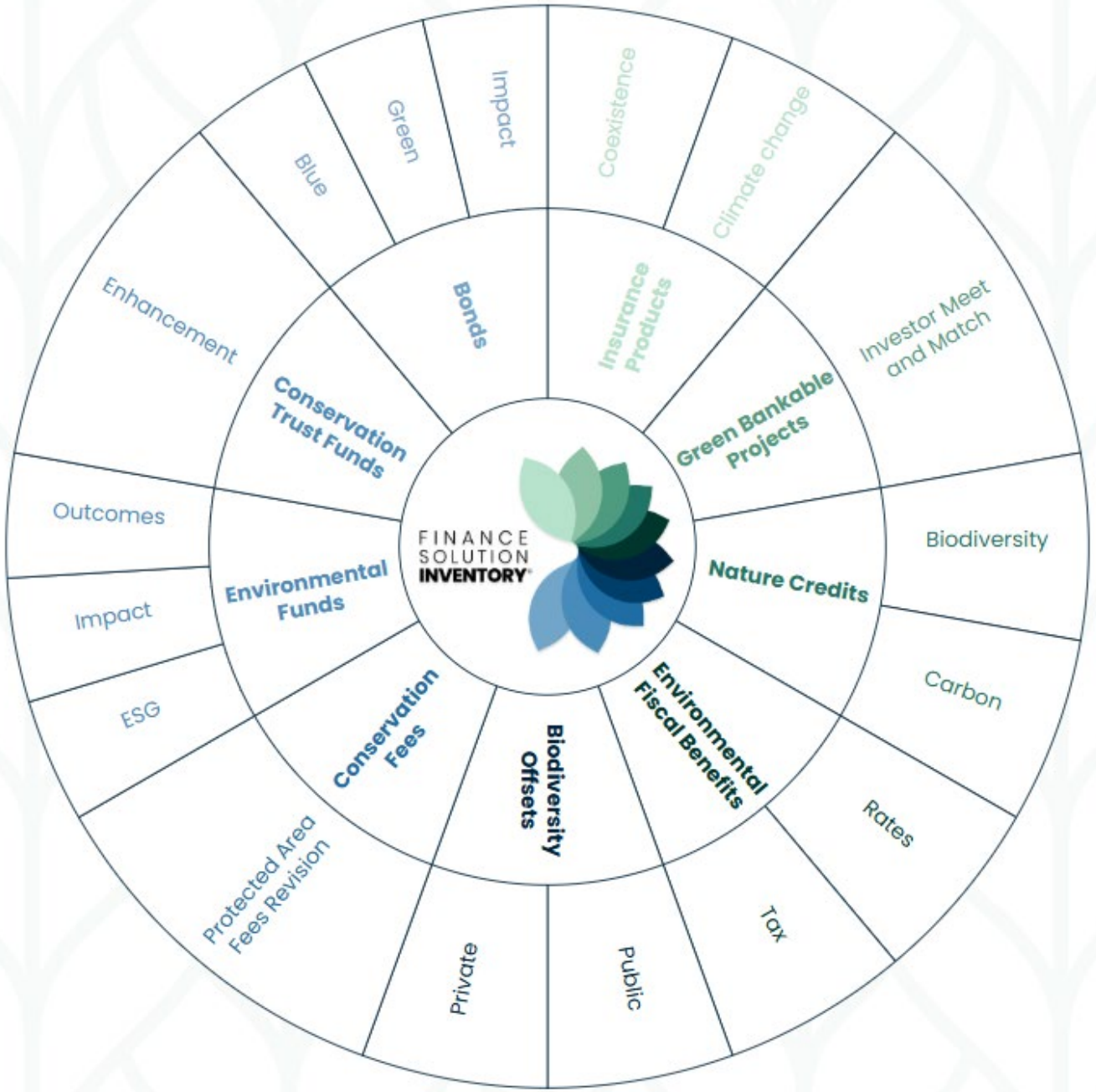

Highlights Finance Solutions and examples from across Africa in an **Inventory Wheel**.

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Thank you