Namibia's Road to GH2

The Publicity Journey-How we got here…

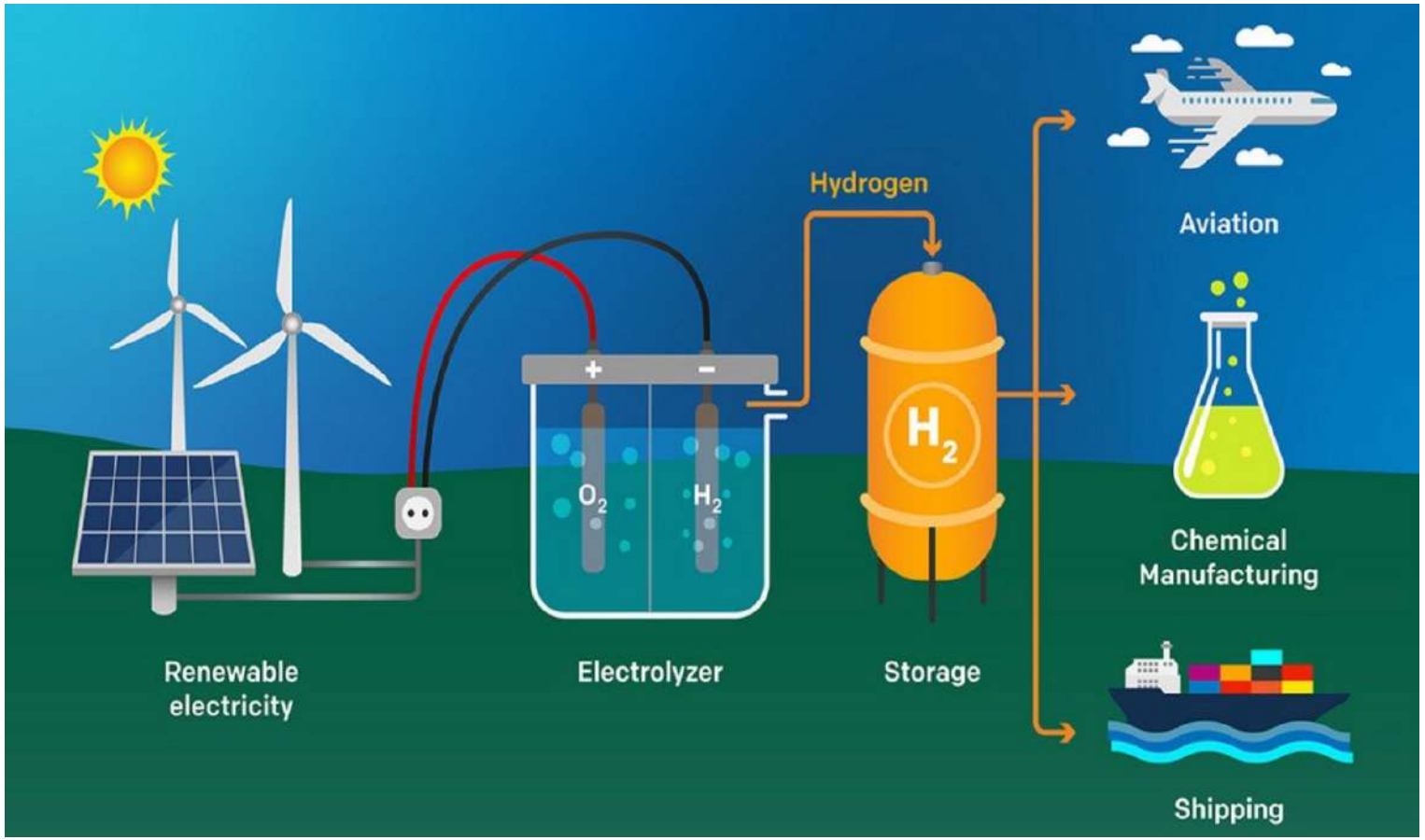
| Jona Musheko-Manager of External Affairs & Communications

M. Marketing
H. Communications
H. Linguistics Studies

OUTLINE

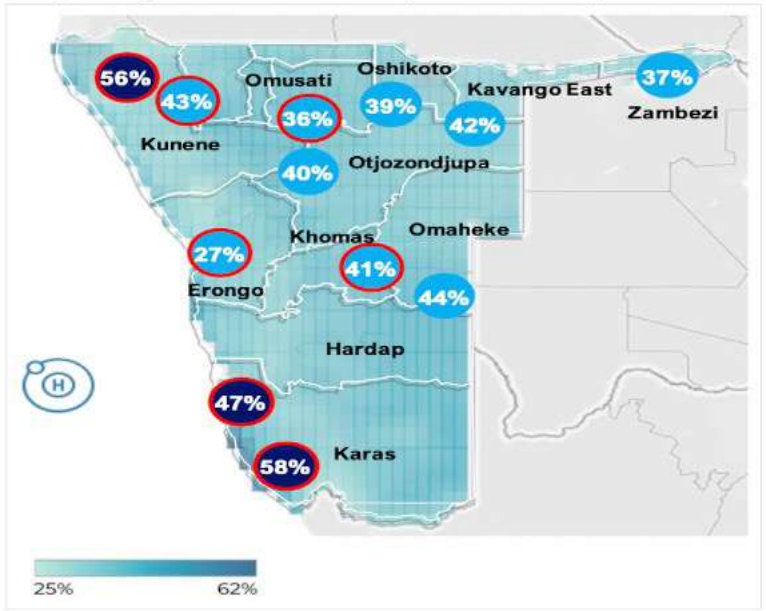
- What is green hydrogen?
- Why GH2?
- GH2 Vision
- Green Industrialisation
- Green Hydrogen Projects in Nam
- How we changed the narrative/Comms

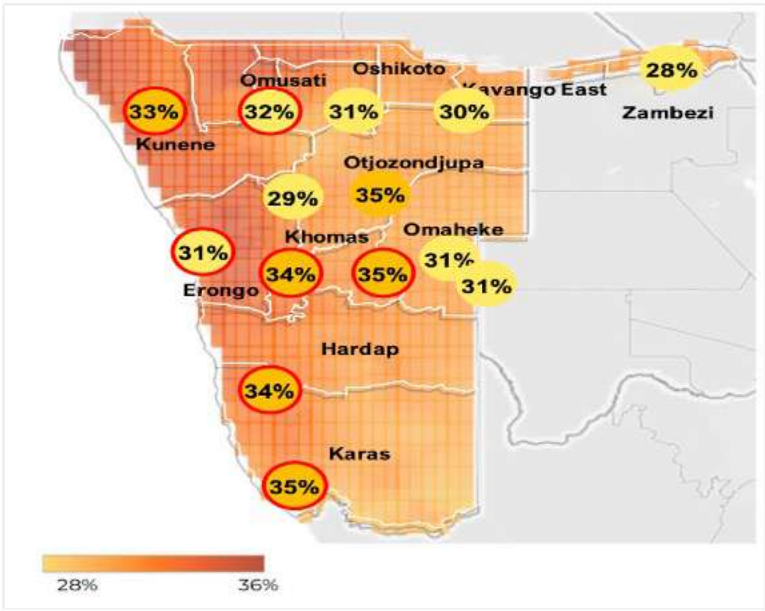
What is Green Hydrogen?



Why Green Hydrogen?

- Green hydrogen plays a crucial role in global decarbonization. Global demand for hydrogen and derivatives is expected to soar.
- With its world-class renewable energy sources, Namibia is poised to help fill the anticipated global hydrogen demand-supply gap.





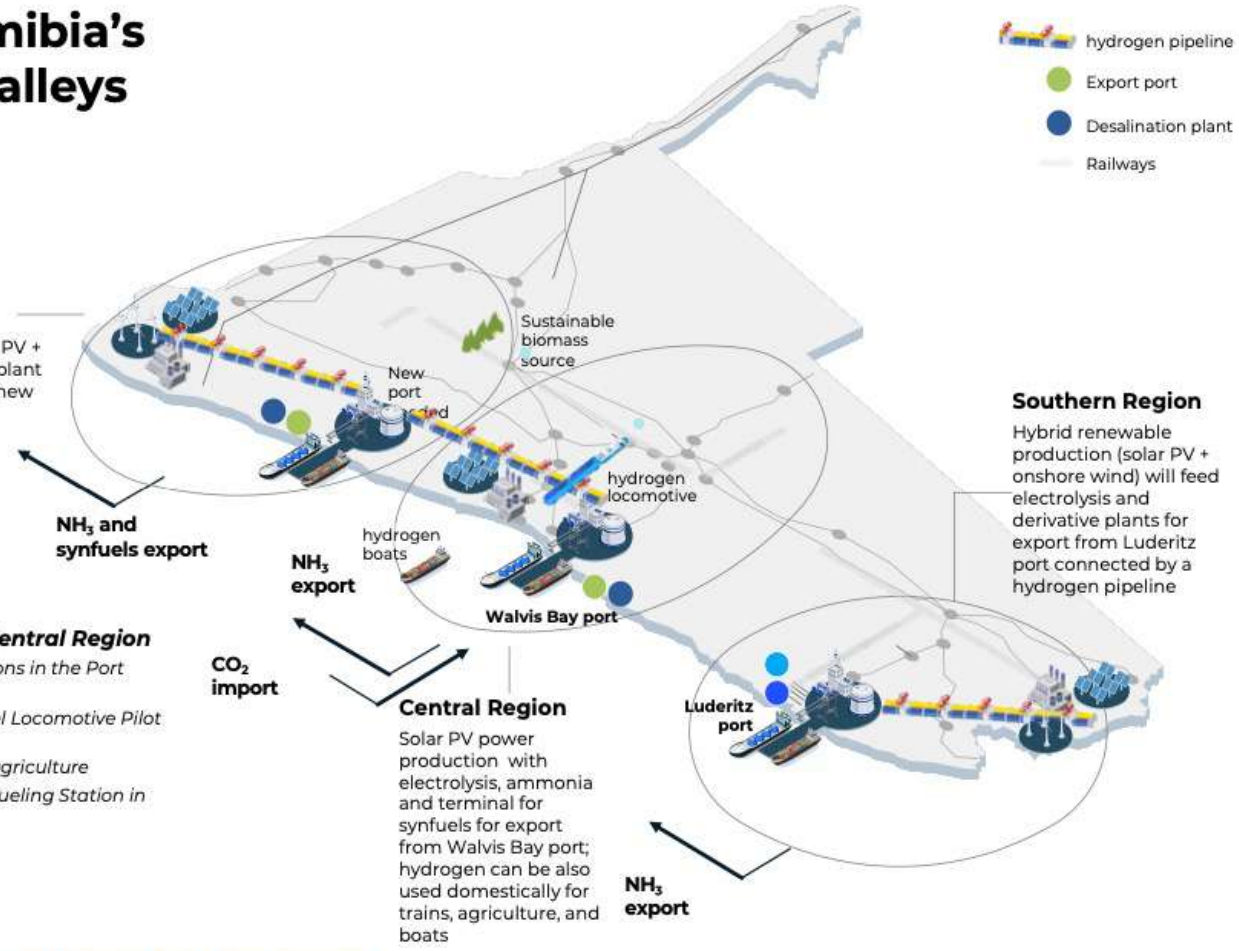
Offshore wind Europe CF: 35.9 %

Global average CF solar: 10-25%

Green Hydrogen Vision

Vision for Namibia's three green valleys

Illustrative



Northern Region

Hybrid renewable production (solar PV + onshore wind) will feed electrolysis plant and ammonia production near the new port facility

Southern Region

Hybrid renewable production (solar PV + onshore wind) will feed electrolysis and derivative plants for export from Luderitz port connected by a hydrogen pipeline

Confirmed pilot projects in Central Region

Project 1: Green Hydrogen Applications in the Port Environment

Project 2: Hydrogen-Diesel Dual Fuel Locomotive Pilot Project Proposal for Namibia

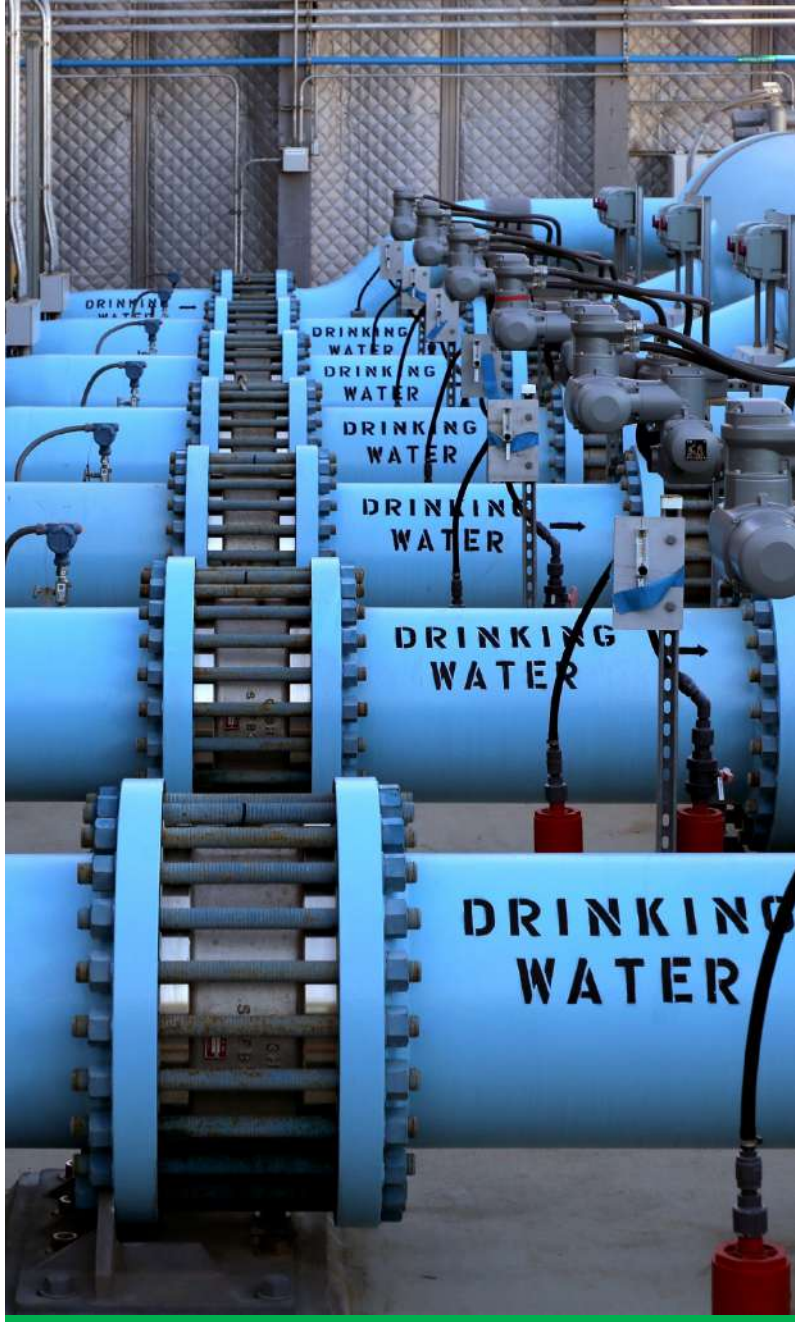
Project 3: Daure Green Hydrogen - agriculture

Project 4: hydrogen-Pilot Plant / Refueling Station in Walvis Bay

Central Region

Solar PV power production with electrolysis, ammonia and terminal for synfuels for export from Walvis Bay port; hydrogen can be also used domestically for trains, agriculture, and boats

Exhibit 12: Hydrogen end-use demand by region in a net zero scenario



The First Namibia Green Product

Green Industrialisation - Infrastructure

		Rationale	Investment requirements	Policy considerations
Rail	 p.28	› Extend cost-effective transport distances to capture regional trade from further afield. › Bulk capacity to transport minerals & inputs needed for target industries.	› Track upgrade to SADC standard (speed & axle load) › Rolling stock replacement › New rail connections to Zambia, Botswana and beyond	› Reform international freight policy. › Digitise border processing › Scale-up Corridor Trip Monitoring System pilot.
Ports	 p.29	› Broaden commodity type & capacity that can be exported. Non-container capacity currently constrained. › Ensure specialised deepwater capacity for gH_2 industries and offshore oil/gas.	› New deepwater ports: Walvis Bay North Port, Angra Point, and (in long term) Cape Fria › Sustaining capex at Walvis Bay › Quay extension at Lüderitz	› Regulations and policy required to accommodate new industries. › Need for skilled logistics professionals.
gH_2	 p.30	› Monetise world-class solar and wind resources via liquid energy trade. › Underpin investment opportunities in gH_2 upstream/downstream, and energy intensive industries.	› Hydrogen technology pilots › GW scale solar and wind farms › Electrolysis/ammonia/desal plants › Electricity transmission and gH_2 pipelines to supply neighbours	› Broker offtake/market access. › Raised blended finance to support investments. › Develop gH_2 and synthetic fuels regulatory framework.
Electricity	 p.31	› With hydro vulnerable and imports requiring renegotiation, renewables can reduce import-dependency › They also lower tariffs, green the sector, & expand access to electricity	› Continued private investment in renewables generation › Public sector investment in transmission & battery storage infrastructure	› Renewables combined with battery storage could enable a zero-carbon energy sector. › Continued competition in generation key to further lowering consumer tariffs.
Industrial zones	 p.32	› Avoid risk of enclave industry with limited domestic value add. › Establish common user infrastructure to lower development cost and risk. › Clustering industries to minimise footprint and maximise efficiencies.	› Town planning and infrastructure @ Luderitz › !Nara Namib Industrial Economic Zone @ Walvis Bay › Common user infrastructure for Southern Valley gH_2	› Skill-specific training centres and programmes needed. › Develop tailored gH_2 zoning regulations. › Support to local firms to exploit linkage opportunities.

Focus Area
Green Industries

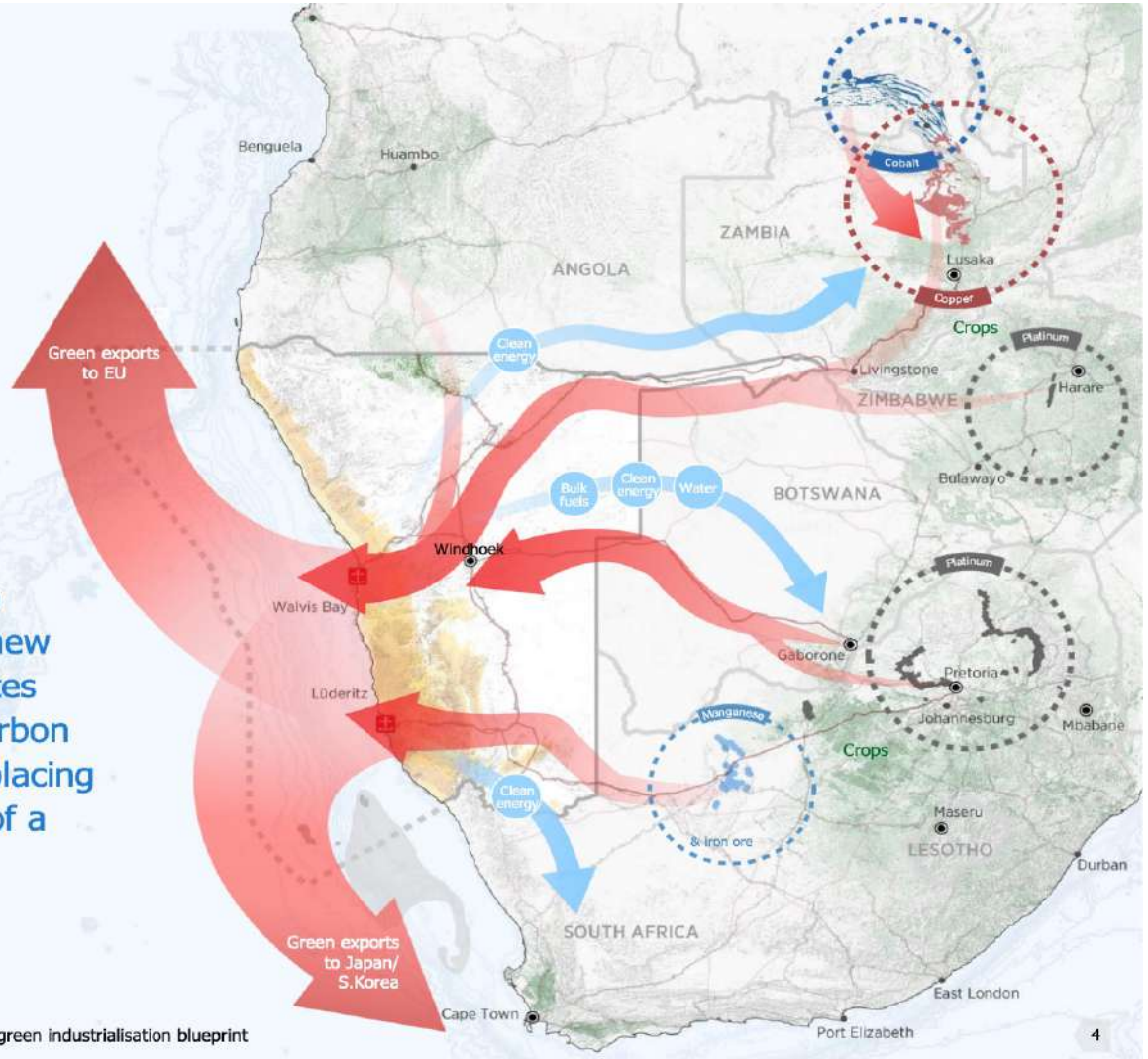
Green Industrialisation-Regional View

A NEW GROWTH AGENDA

The emerging vision

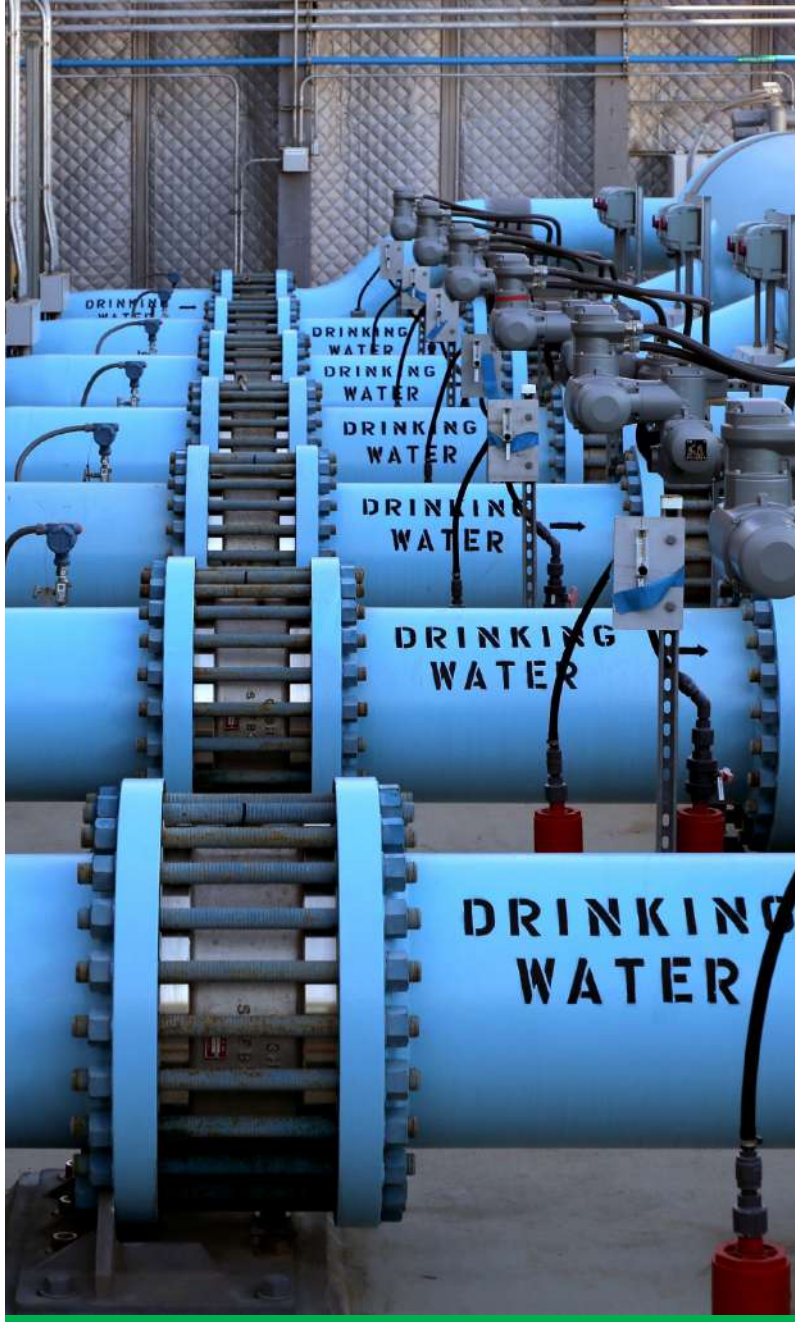
Green industrialisation is the opportunity that binds domestic, regional, and global agendas.

Namibia, working with its neighbours, to deliver a new global gateway that creates modern trade and low-carbon industrial opportunities, placing the region at the centre of a rapidly greening world.

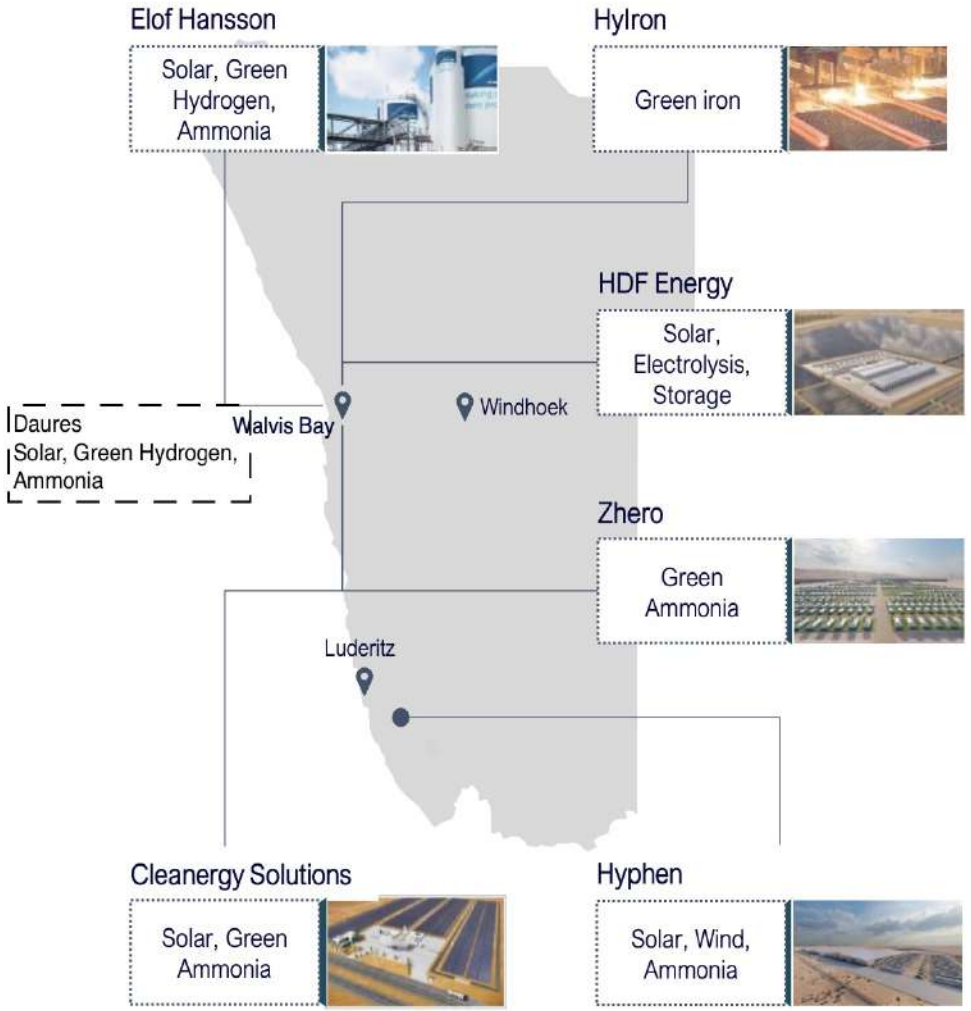


Green industrialisation - Industries

		Opportunity description	Execution model
Renewable energy hardware	1. Solar panel manufacturing	Cell manufacture & panel assembly to serve domestic gH_2 needs, then expand regionally as costs decline.	Attract OEM cell producers, incubate local companies for module assembly, then localise adjacent industries.
	2. Electrolyser manufacturing	Assemble electrolyser stack & balance of plant to serve gH_2 needs, then expand upstream and regionally.	Invite major OEMs or int'l energy firms to set up local production by orchestrating offtake agreements.
	3. Wind turbine manufacturing	Produce wind turbine towers and blades locally to serve gH_2 needs, then supply blades regionally.	Incubate local firm to produce towers and invite major OEMs to set up domestic blade production.
Mineral refining	4. Lithium refinery	Refine local concentrate to technical grade lithium for export to EU, taking advantage of diversification push.	Broker technical-grade lithium refining JV between local player and EU-based battery-grade refiner.
	5. Rare earth elements refinery	Leveraging announced REE projects, develop domestic separation facility to produce rare earth oxides.	Collaborate with Chinese refiner or invest in R&D with EU/US-based REE operator to explore new technology.
Low CO_2	6. Flat glass production	Use low-cost, low-CO_2 energy to produce flat glass for Africa & EU, then expand into local raw materials.	Attract int'l player to launch local production. Export to Africa/EU, then expand to downstream products.
gH_2 derivatives	7. Synthetic fuel production	Use bush biomass to produce biogenic CO_2 feedstock and gH_2 to produce synthetic fuel for EU aviation	Push JV between int'l SAF developer and existing player to produce e-SAF using local gH_2 & biogenic CO_2.
	8. Hot briquetted iron production	Produce green HBI/DRI using gH_2 for EU, then grow to supply other 'green steel' demand centres (e.g., S.Africa).	Incubate local firm & engage miners/ traders to secure iron supply. Strike offtake agmts with int'l steel players.



Green Hydrogen Projects



Project	Phase of development
Hyphen	Feasibility
Elof Hansson	Development/planning phase
HDF	Development/planning phase
Hylron	Phase 1/Production in 2024-25
Zhero	Development/planning phase
Cleanergy Solutions	Pilot/Phase 1/Production in 2024-25
Daures Hydrogen Village	Pilot/Phase 1/Production in 2024-25

Project Implementation and Early Opportunities

• Namibia's green hydrogen sector is already attracting significant investment, with approximately **N$2.08 billion** committed across various projects.
• Notable projects include:
o **HyIron Oshivela Project**
o **Daures Green Hydrogen Village**
o **Cleanergy Solutions Namibia**

Approximately **N$170 million** has been channelled into local SMEs;
Total Sector investment over **100 million Euros** (projects development, institutional support, SDG One Namibia)

Focus Area
Green Industries

Communications/ Media & Public Relation

Nandi-Ndaitwah doubts green hydrogen's contribution to economy


EDITORIAL P11

Don't Be Distracted by Sex

the Weekender

Victory Fest returns with a mission to empower creatives against GBV

P27-28

IUM

INDEPENDENT REPORTING SINCE 1985

the namibian WEEKEND

STILL TELLING IT LIKE IT IS! VOL. 39 NO. 123 N$5 FRIDAY 7 MARCH 20

Nandi-Ndaitwah doubts green hydrogen

• TIMO SHIHEPO

PRESIDENT-ELECT Netumbo Nandi-Ndaitwah has reportedly asked government officials to explain the viability of Namibia's green hydrogen programme.

The comes amid speculation that she is leaning toward the 'tried and tested' oil sector.

Government sources told *The Namibian* that the incoming president asked whether green hydrogen can boost Namibia's economy.

She is allegedly contemplating moving the green hydrogen programme office under tighter government control, rather than it operating independently.

Nandi-Ndaitwah requested a progress and sustainability report last year from presidential adviser and green hydrogen commissioner James Mwago.

Nandi-Ndaitwah is said to be unconvinced of the green hydrogen industry as the main catalyst to revive Namibia's struggling economy.

Instead, she appears to lean toward the oil and gas sector, viewing it as a more reliable path to economic recovery.

Two months before elections last year, Nandi-Ndaitwah, during the opening of the Africa Global Hydrogen Summit, said green hydrogen holds the potential to spur economic development and help address climate change.

Former president Hage Geingob launched his flagship energy project in 2021 to develop affordable renewable projects that would generate revenue and benefit local communities.

HYDROGEN continued on page 2

Photo: Contributed

LUSH AVIS ... Windhoek's Avis Dam area, which is a popular green space in the city, has turned a lush green during the current rainy season. On Wednesday, the dam received a strong inflow of water, after rainfall in its catchment area to the east of Windhoek.

INSIDE

Namibia records 28 leprosy cases

P3

Zambezi hit by 3 400 malaria cases, one death

P5

Stock theft investigator murder verdict in April

• WERNER MENGES

THREE men accused of [illegible] during a stock theft investigation [illegible] Gobabis Junior 12 [illegible] ago are set to hear the verdict [illegible] in their drawn-out trial [illegible] Windhoek High Court in A[illegible]

Acting judge Alfeus Ua[illegible] has postponed the delivery [illegible] his judgement in the [illegible] trial to 16 April after hearing [illegible] closing oral arguments [illegible] High Court in Windhoek [illegible] national Facility this week.

Gobabis area farmer Ste[illegible] Ly Kaujaa (50) and fa[illegible] workers Mathias Kahuran[illegible] (48) and Mansue Kapeno[illegible] are accused of murdering [illegible] stock theft suspect, Wi[illegible]

MURDER: cont. on pg

Eiseb's ghost haunts Namdia

... Family demands answers over security chief's death

• VERONIKA KANGUMBE and SHELLEYGAN PETERSEN

- Concerns raised over lack of transparency
- Namdia must explain why Eiseb was called to work while on leave
- Company yet to recover over N$300 million's diamonds

THE family of security chief Francis Eiseb, who died in an armed robbery that saw Namibi Desert Diamonds (Namdia) lose N$330 million worth of diamonds, wants answers on the circumstances surrounding his death.

EISEB: continued on page 2

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Communications/ Media & Public Relations

Namibia three weeks away from first green iron production

namibian TOMORROW

HOW DID WE GET HERE?

Comms Applied

Capitalize on Free Platforms

- Radios (National Radios, Commercial Radio)
- Television (NBC –Daily RU, GMN, Business T)
- Print Media (Gov & Commercial)
- Media Tour (to sites/projects)

Note:

- *Be available,*
- *Be ready to create content for producers*
- *Have time for one-on-one with producers/journalists*
- *You are not the Boss-Be humble*
- *Be social & human*

Social Media

LinkedIn- Professional
Facebook- General Public
Twitter/X- Professionals, Policy Makers, Policy Influencers
Instagram- Young professionals
Tik Tok- High school goers & Youth in General
YouTube & Clubhouse

Note:
Regular updates;
Tailor-made content for each platform;
Verification (where necessary);
Be responsive/interactive;
Social Media Listening Tools-Monitor what is being said

National Reach Campaign- Green Industrialisation

With **17 mobile advertising trailers** deployed across **all 14 regions**, the campaign is aimed to:

- ❑ Educate Namibians on the economic and environmental promise of green hydrogen;
- ❑ Position the sector as a key driver of industrialisation, energy security, and inclusive national development;
- ❑ Encourage broad public participation and citizen engagement/Trigger conversations

Key Achievements to Date

Since the launch of the campaign, notable progress has been recorded:

- ❑ **Increased Public Engagement:**
- ❑ **Higher Digital Traffic (QR code scans and login features)**
- ❑ **Public Inquiries**
- ❑ **Community Dialogue**
- ❑ **Political Support (Greater leadership and ownership)**

We Didn’t Wait For Audiences To Find Our Message — We Drove It To Them

Namibia
Green Hydrogen
Programme

Using local skills to build global products

From Exporting Resources to Exporting Solutions

Namibia Green Hydrogen Programme


Green Hydrogen -
Building Namibian
Industries.
From Exporting Resources
to Exporting Solutions


Green Hydrogen -
An Opportunity
for All!
Using local skills to
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Green Hydrogen -
Building Namibian
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From Exporting Resources
to Exporting Solutions


Green Hydrogen -
An Opportunity
for All!
Using local skills to
build global products

Parting Words..

- Opportunities
- Innovative
- Risk Appertite
- Read & Ask

Thank you for listening…