

# NAMIBIAN PORTS AUTHORITY (NAMPORT)



*Navigating a  
sustainable future  
for our ports*

## **Green Hydrogen Project Development- Linear Connections**

**(Material Import and  
Exports)**

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# AGENDA

The Presentation will address the following:

1. Namibia's readiness to support the GH2 Industry (materials imports and exports)
  - **Sea Ports (Namport)**
  - **Pipelines (Namport)**
  - Airports (Namibia Airports Company)
  - Roads (Roads Authority)
  - Railways (TransNamib)
  - Electricity transmission (NamPower)
2. Specific Related Projects

# **MATERIAL IMPORTS AND EXPORTS RELATED TO GREEN HYDROGEN**

## **IMPORTS – mostly break bulk**

- Construction materials will include:
  - Wind Turbines – break bulk
  - Solar Panels – containerized
  - Process plant components – break bulk
  - Etc.

## **EXPORTS – mostly liquids**

- Green Hydrogen carriers (ammonia)
- Bunkering fuel (ammonia and/or methanol);
- Synthetic fuels

# Our Ports and our market/hinterland



## Port of Walvis Bay

- Comprises 1,500 hectares of land in South Port, North Port and Fishing Harbour sections;
- Current land capacity deemed sufficient to cater for demand over the next 30-50 years
- Longer term (>50 years) land reclamation projects planned for both the South and North Ports

## Port of Lüderitz

- Comprises 25 hectares of land at Robert Harbour.
- Current port land nearly fully occupied
- Short to medium term (5 years) - additional capacity to be created through optimization of the existing land.
- long term (> 5 years) - new port planned at Angra Point (Lüderitz) with 886 hectares of additional land.

## Northern Namibia

- New deep-water port planned at Angra Fria in the skeleton coast national park, about 100km South of the Namibia/Angola Border, or Kunene river.

# **Namport and Green Hydrogen**

## **GREEN HYDROGEN ACTIVITIES THAT MAY BE DEVELOPED INSIDE THE PORTS:**

- Desalination plants, electrolyzers, air separation units, ammonia production units, tank farms, ammonia and/or methanol bunkering hubs, etc.;

## **COMMON USER INFRASTRUCTURE TO BE OWNED AND OPERATED BY NAMPORT:**

- Berths: Quay walls or jetties with suitable water depth;
- Bulk pipelines inside and outside the ports to convey all related liquids and gasses;
- Handling/loading equipment on the berth(s).
- Any port infrastructure which may be shared amongst different hydrogen producers will be controlled by the port authority;



# Port of Walvis Bay – natural port

NATURAL 30km BREAKWATER  
– PELICAN PENINSULA



Image Landsat / Copernicus

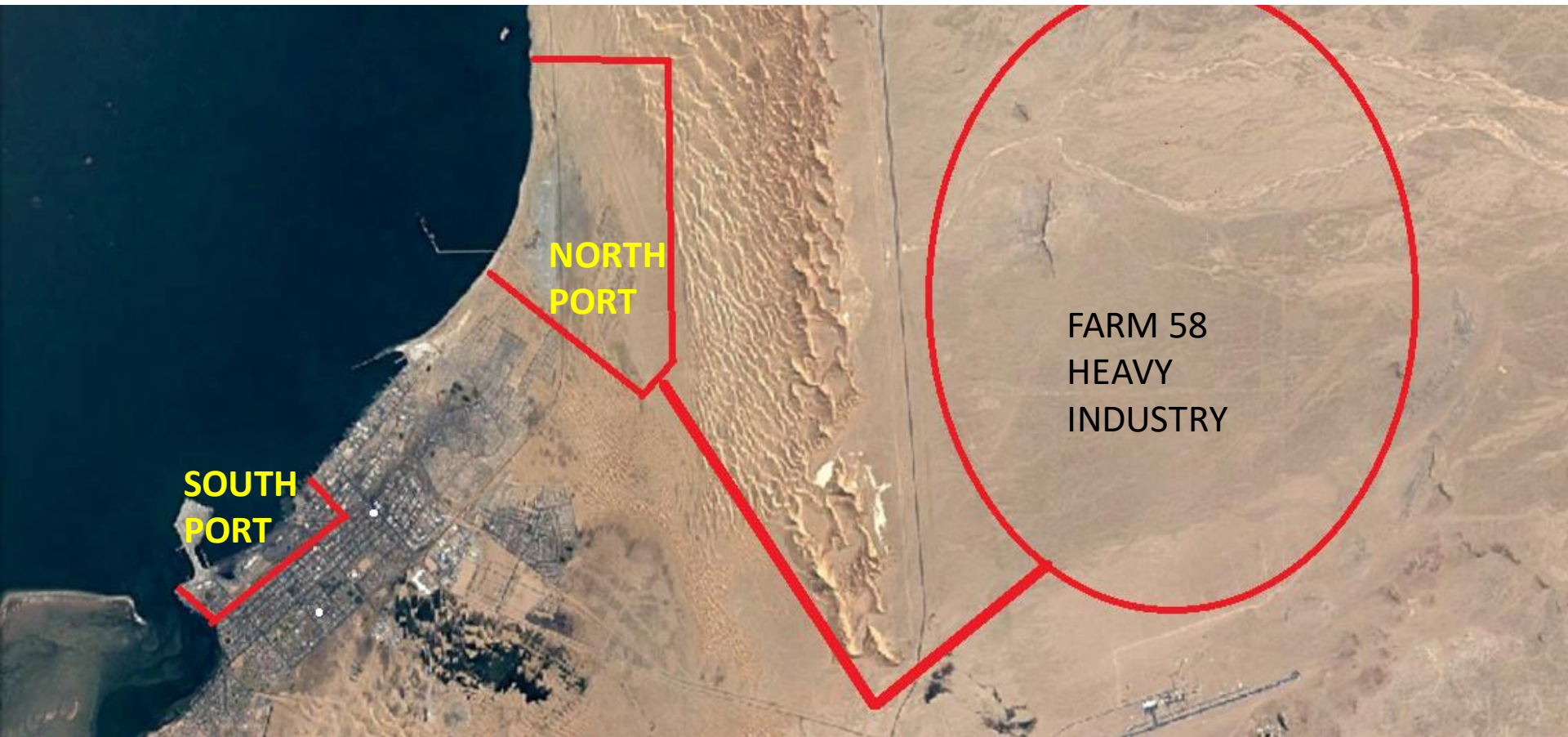
# Port of Walvis Bay – CAPACITY



- South Port is fully utilized, whereas the North Port is green fields
- Total container handling capacity of 800,000 TEU/year (170,000 TEU/year actual)
- Non containerized capacity of 20 MTPA (8 MTPA actual);
- Existing South Port has adequate capacity to import all project/ cargo;
- The North Port has two existing liquid bulk jetties with a capacity to handle 10 MTPA of liquids or gasses (1.5 MTPA actual);



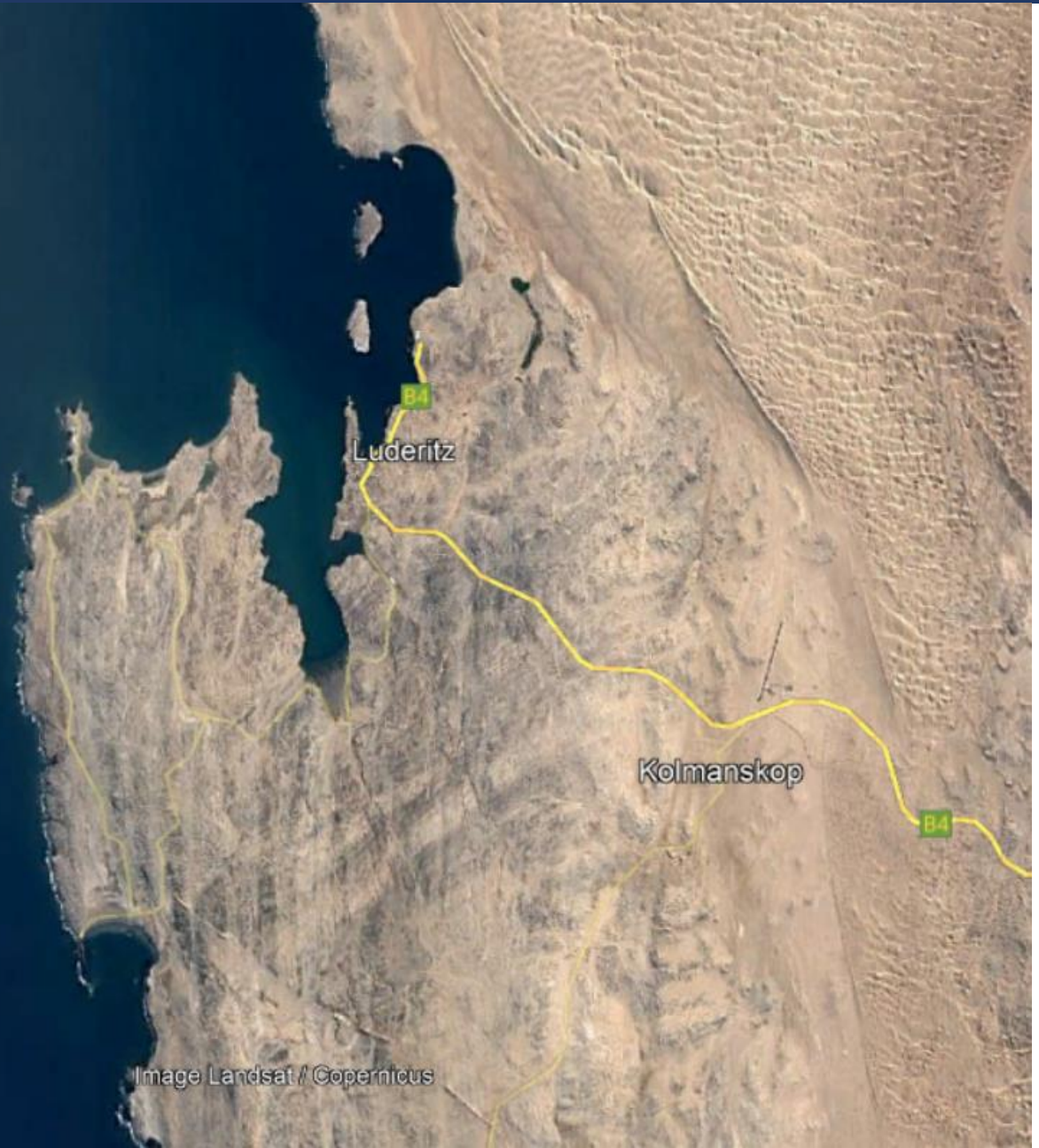
# Port of Walvis Bay North Port – Energy HUB



- North Port is the newest addition to the Port of Walvis Bay, with existing capacity of 10MTPA of liquid imports/exports, and/or an ammonia and/or methanol bunkering
- 1335 hectares of land, 100 hectares (out of 350ha) was already allocated for a Hydrogen production projects.
- New Multipurpose Terminal planned for the North Port



# Port of Luderitz



# PORT OF LUDERITZ – ROBERT HARBOUR



1. The Port of Luderitz, Robert Harbour, physically cannot easily expand due to the rock on which it is built and the town which completely surrounds it.
2. All land plots are currently leased out.
3. Berths are all over-utilized.
4. Maximum depth alongside is 8.75m. Expansion of the current port is feasible but at the same depth.
5. The 2010 Port Master Plan was recently revised in order to take into account the new green hydrogen industry, amongst others.
6. Existing Port Capacity is 1.7 MTPA versus 1.2 MTPA actual
7. Capacity will be increased to 3 MTPA with transshipment operations



# Port of Lüderitz – Angra Point

Master Plan Study for the Proposed Deepwater Port at Angra Point, Port of Lüderitz  
Concept Development and Cost Estimate



Port of  
Rotterdam



HYPHEN  
InvestInternational

## Medium-Term Layout (2043)



1. Expansion of Main Quay Wall in Robert Harbour by 200-300m to commence in 2024/5;
2. First Ammonia export berth at Angra Point to be commissioned by 2028 for export of 2MTPA of Ammonia.

# CONCLUSIONS

## **Port of Walvis Bay**

- Adequate capacity exists in the Port of Walvis Bay today to accommodate all required imports and exports for the GH2 industry in the next 10 years;
- Port of Walvis Bay North Port Master Plan has sufficient scope to increase capacity and cater for the demand over the next 50 years;

## **Port of Luderitz**

- Capacity in the current Port of Luderitz Robert Harbour is constrained.
- Expansion of Robert Harbour is being fast tracked to provide capacity for project cargo imports by 2025/6.
- Development of an export terminal at Angra Point by 2028 will provide a capacity to export up to 2 MTPA of ammonia;
- Angra Point Master Plan provides scope to create up to 18MTPA ammonia export capacity;



# Thank you



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