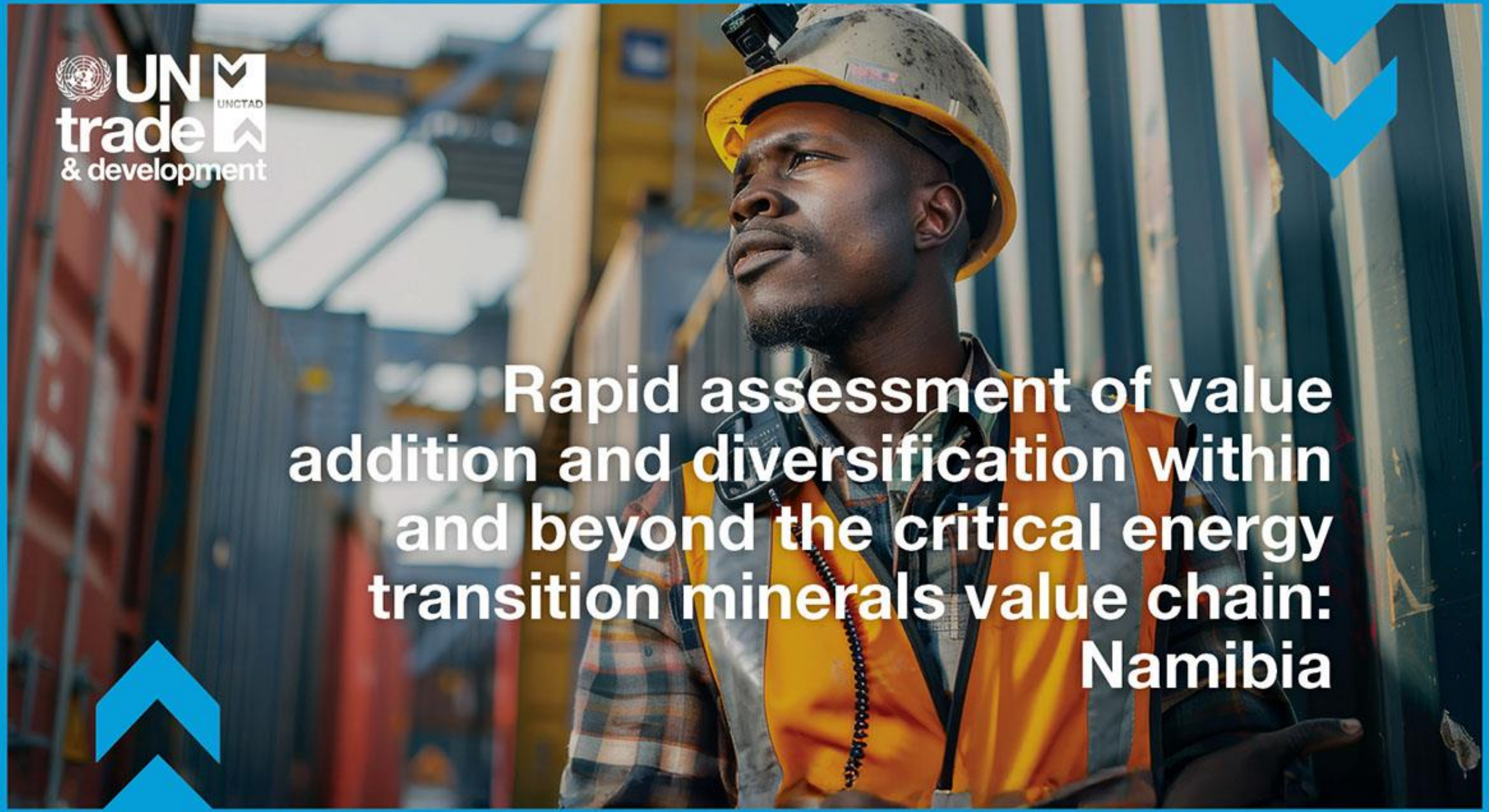
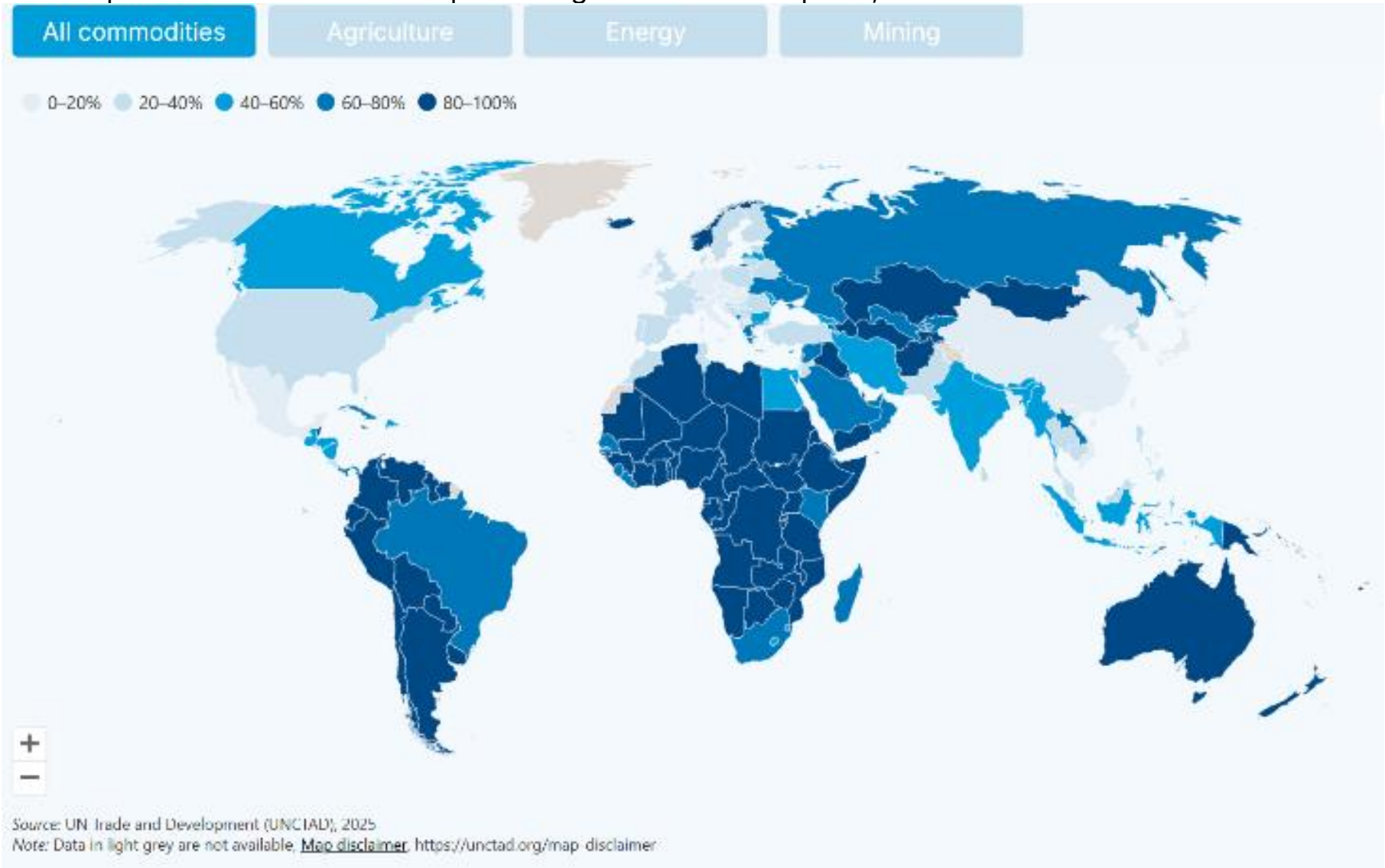


UN trade & development
UNCTAD

Rapid assessment of value addition and diversification within and beyond the critical energy transition minerals value chain: Namibia

Commodity dependence remains a critical issue for Namibia, as for most developing countries

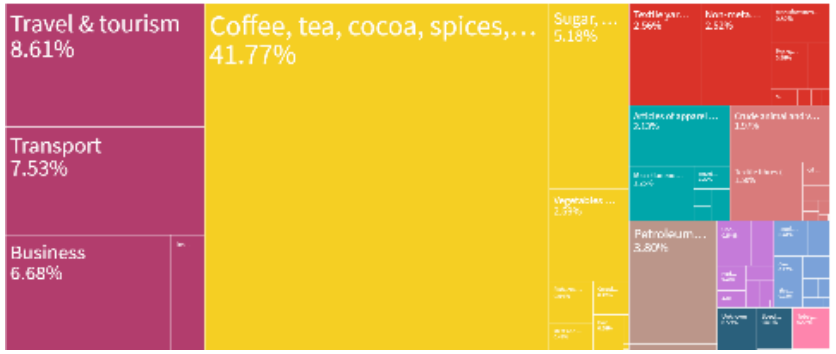
Export of commodities as a percentage of the total exports, 2021-2023



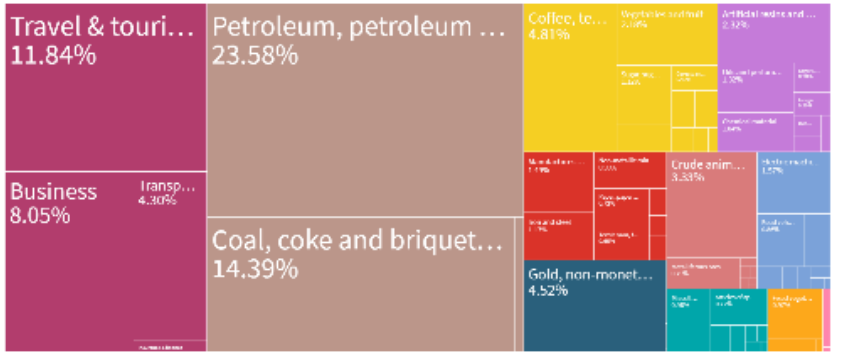
Two Commodity-Dependent Economies, Two Very Different Outcomes

COUNTRY 1

1980, Exports $5.5 Billion



2023, Exports $64 billion

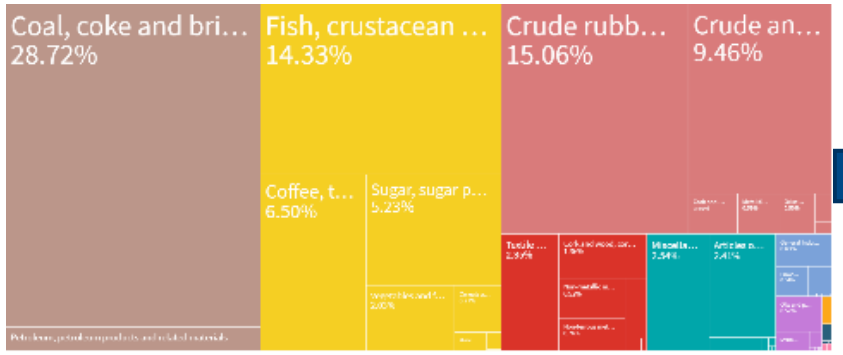


Lower diversification – commodity dependent

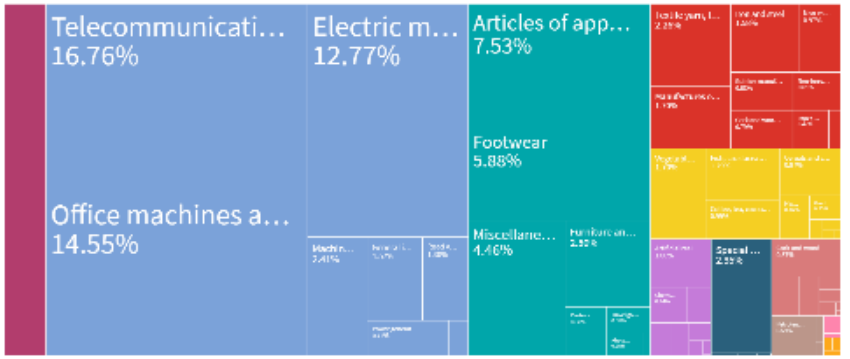
Exports increased by over 10x

COUNTRY 2

1980, Exports $ 0.1 Billion



2023, Exports $404 billion



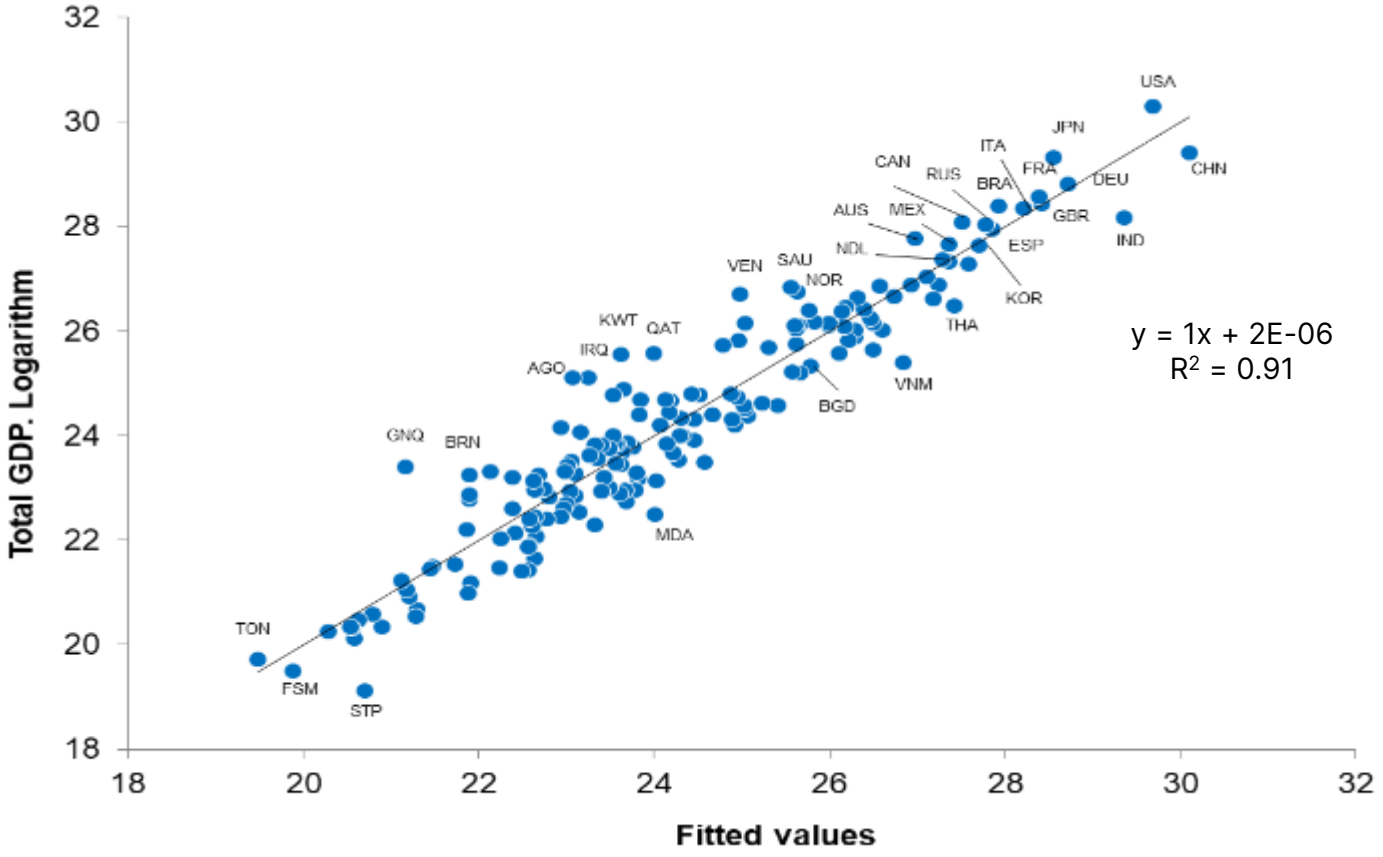
Diversification –out of commodity dependence

Exports increased by over 4,000x

Source: Atlas of economic complexity: https://atlas.hks.harvard.edu/

The higher the Diversification, The higher the total GDP

Association between diversification and total GDP, 2020



Diversification explains

71%

of the variation of **total GDP** between countries

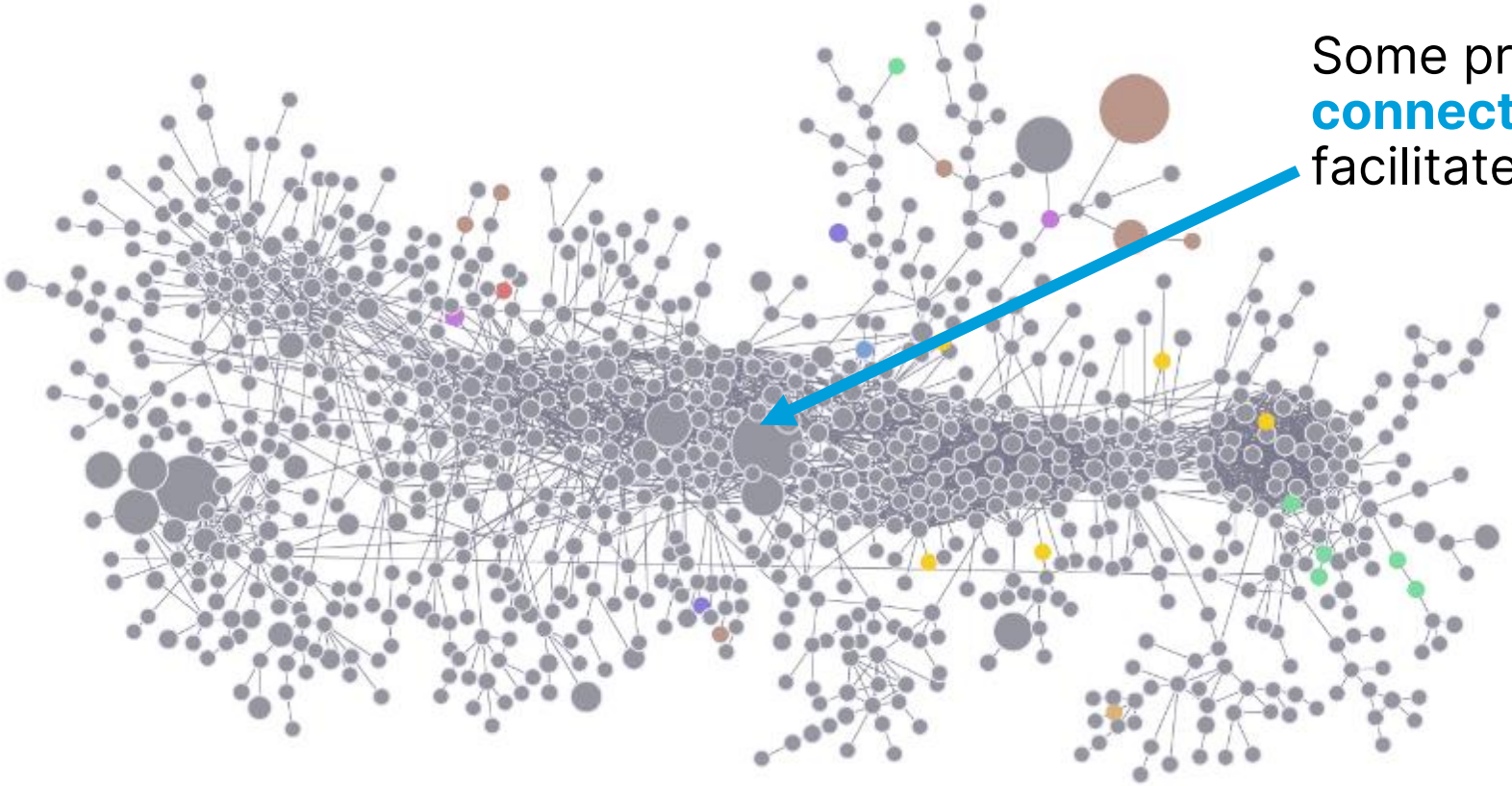
Diversification + Average **complexity** + Labor force size explain **91%** of **total GDP** differences between countries

Note: 2019 data, Number of products is based on SITC rev 3 5-digit data disaggregated by unit value as presented in Annex B – Data and methodology.

Diversification is path-dependent:

Today's production shapes tomorrow's possibilities

The **product space** displays the products connected to each other based on the likelihood that they will be exported together.

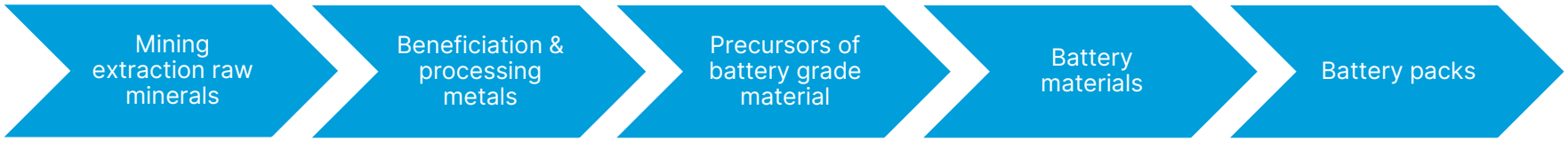


Some products are better **connected** with others and facilitate greater diversification...

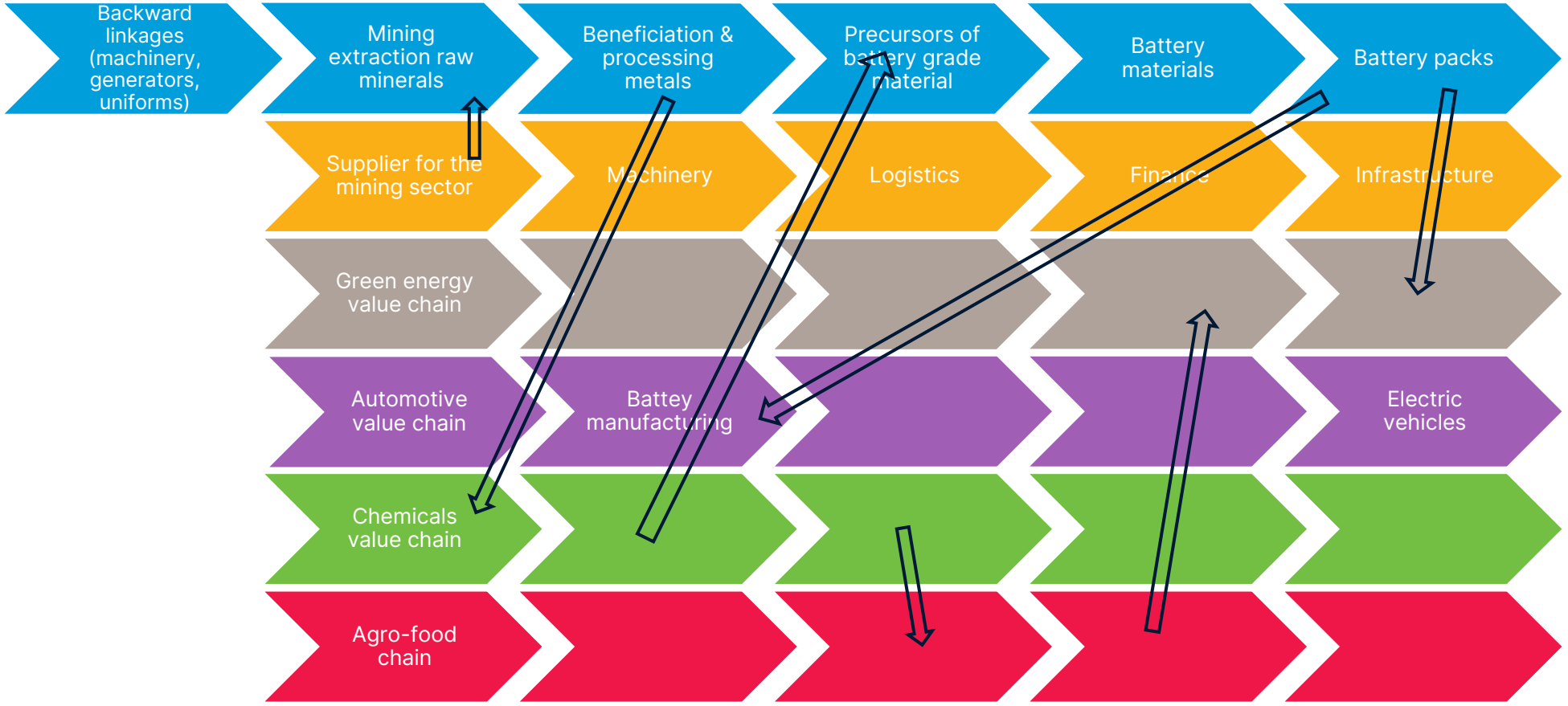
Other products are like dead ends, and most of them are **commodities**

Source: Atlas of economic complexity (http://atlas.cid.harvard.edu).

Value addition and diversification: Structural transformation perspective



Value addition and diversification: Structural transformation perspective



Source: UNCTAD based on Andreoni A and Avenyo E (2023). Critical Minerals and Routes to Diversification in Africa: Linkages, Pulling Dynamics and Opportunities in Medium-High Tech Supply Chains. Background paper commissioned by the UNCTAD secretariat for the 2023 edition of the Economic Development in Africa Report (https://unctad.org/system/files/non-official-document/edar2023_BP1_en.pdf).

Opportunities for value addition and diversification in Namibia: World

Currently exporting 5,064 products

Within the CETM value chain

33 products

$221 million export opportunity

- Chemicals — 153 million
- Articles of copper — 47 million
- Electrical and electronic equipment — 8 million
- Machinery and mechanical appliances — 6 million
- Synthetic polymers — 6 million

Beyond the CETM value chain

167 products

$590 million export opportunity

- Synthetic polymers — 141 million
- Iron and steel — 114 million
- Chemicals — 103 million
- Machinery and mechanical appliances — 54 million
- Paper and paperboard — 45 million

Food processing

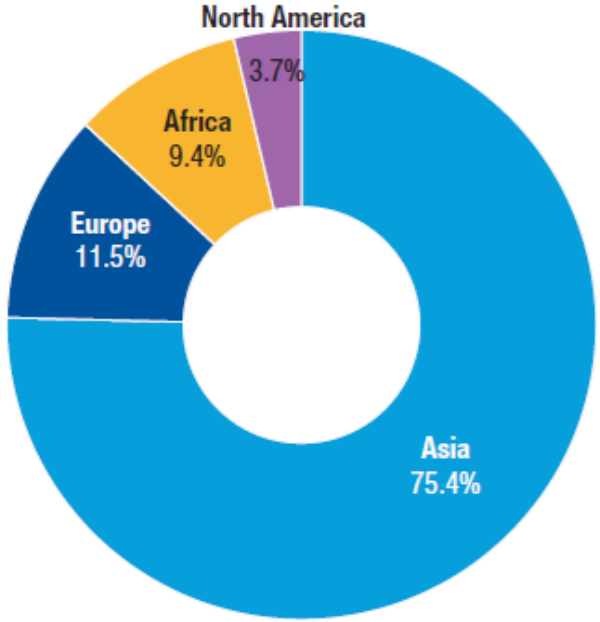
- Dairy, honey, edible animal products — 40 million
- Animal or vegetable fats and oils — 15 million

Main markets for potential new products: World

Within the CETM value chain

Considering existing trading relations

Potential destination markets (based on weighted export opportunities), by region



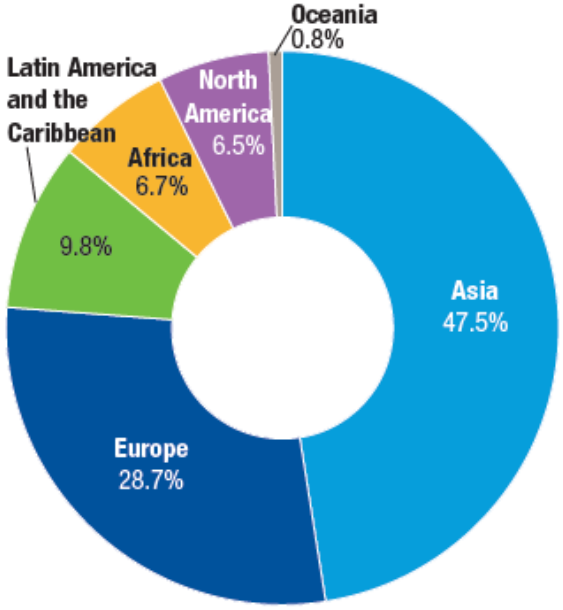
Source: UNCTAD.

Potential destination markets (based on weighted global export opportunities), by country

Potential market	Share of opportunity
China	72.4
South Africa	9.0
France	6.0
United States of America	3.1
India	1.4
Germany	1.3
Spain	1.3
Belgium	0.9
Italy	0.9
Singapore	0.6
Others	3.1

Considering potential new trading relations

Potential destination markets (based on unweighted global export opportunities), by region



Source: UNCTAD.

Potential destination markets (based on unweighted global export opportunities), by country

Potential market	Share of opportunity
China	17.4
Mexico	7.1
United Arab Emirates	6.6
United States of America	5.5
France	4.6
Saudi Arabia	4.4
Bahrain	4.4
Germany	2.8
Türkiye	2.7
Singapore	2.6
Others	41.9

Import substitution opportunities

Within the CETM value chain

15 products

$28 million Import opportunity

Iron and steel

14 million

Electrical and electronic equipment

5 million

Chemicals

3 million

Machinery and mechanical appliances

3 million

Synthetic polymers

3 million

Beyond the CETM value chain

53 products

$89 million Import opportunity

Synthetic polymers

32 million

Paper and paperboard

30 million

Iron and steel

12 million

Chemicals

8 million

Machinery and mechanical appliances

4 million

Food processing

Sugars and sugar confectionery

1.2 million

Dairy, honey, edible animal products

47 thousand

Opportunities for value addition and diversification for Namibia in the SADC

Currently exporting 5,064 products

Within the CETM value chain

25 products

$152 million export opportunity (unweighted)

- Articles of copper — 84 million
- Electrical and electronic equipment — 23 million
- Synthetic polymers — 23 million
- Machinery and mechanical appliances — 9 million
- Chemicals — 7 million

Beyond the CETM value chain

102 products

$182 million export opportunity (unweighted)

- Iron and steel — 51 million
- Chemicals — 32 million
- Machinery and mechanical appliances — 28 million
- Electrical and electronic equipment — 14 million
- Paper and paperboard — 14 million

Food processing

- Vegetable, fruit, nut and other food preparations — 20 million
- Dairy, eggs, honey and other animal products — 2 million

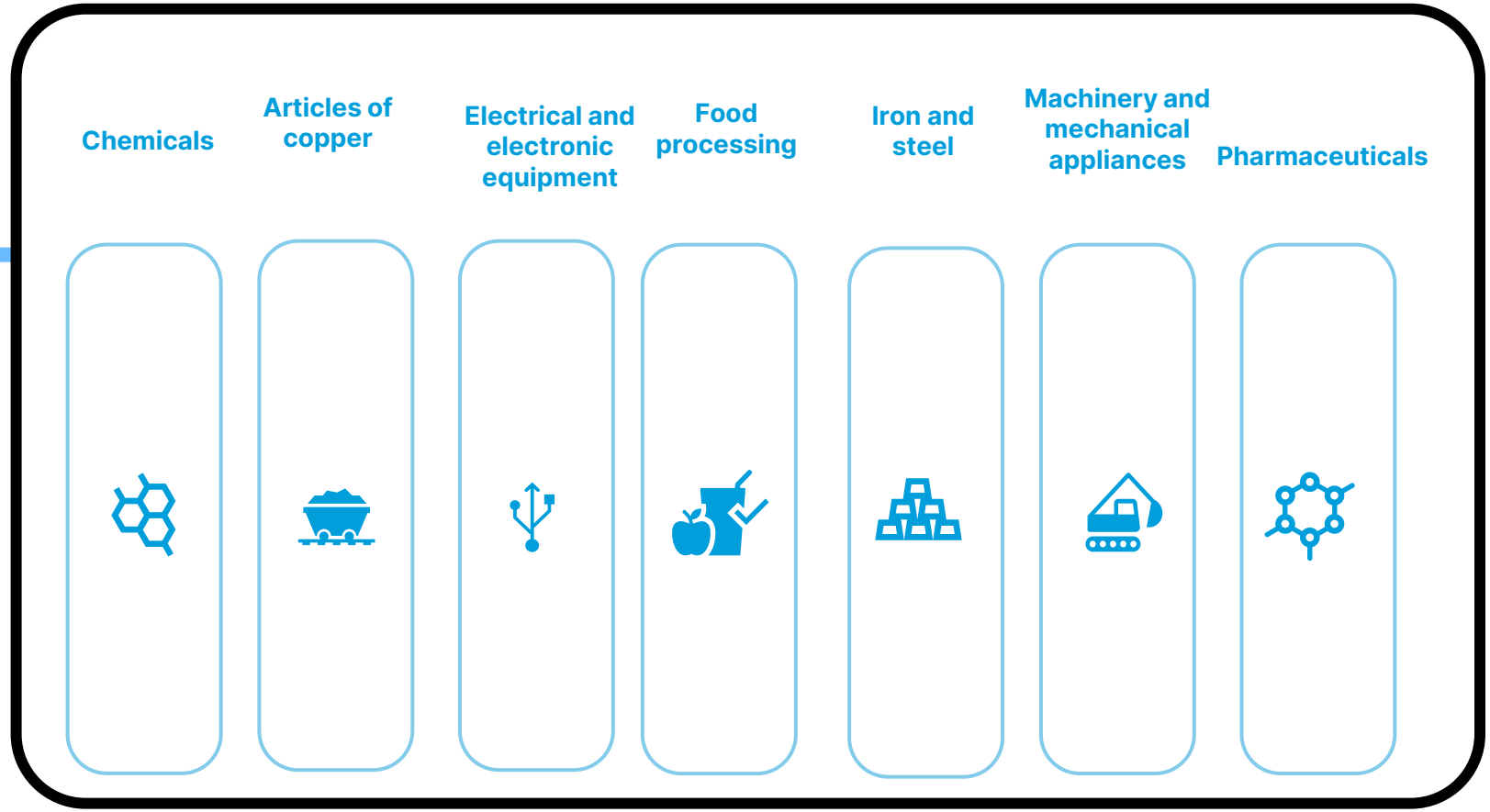
Industry consultations

165 VALIDATED PRODUTS

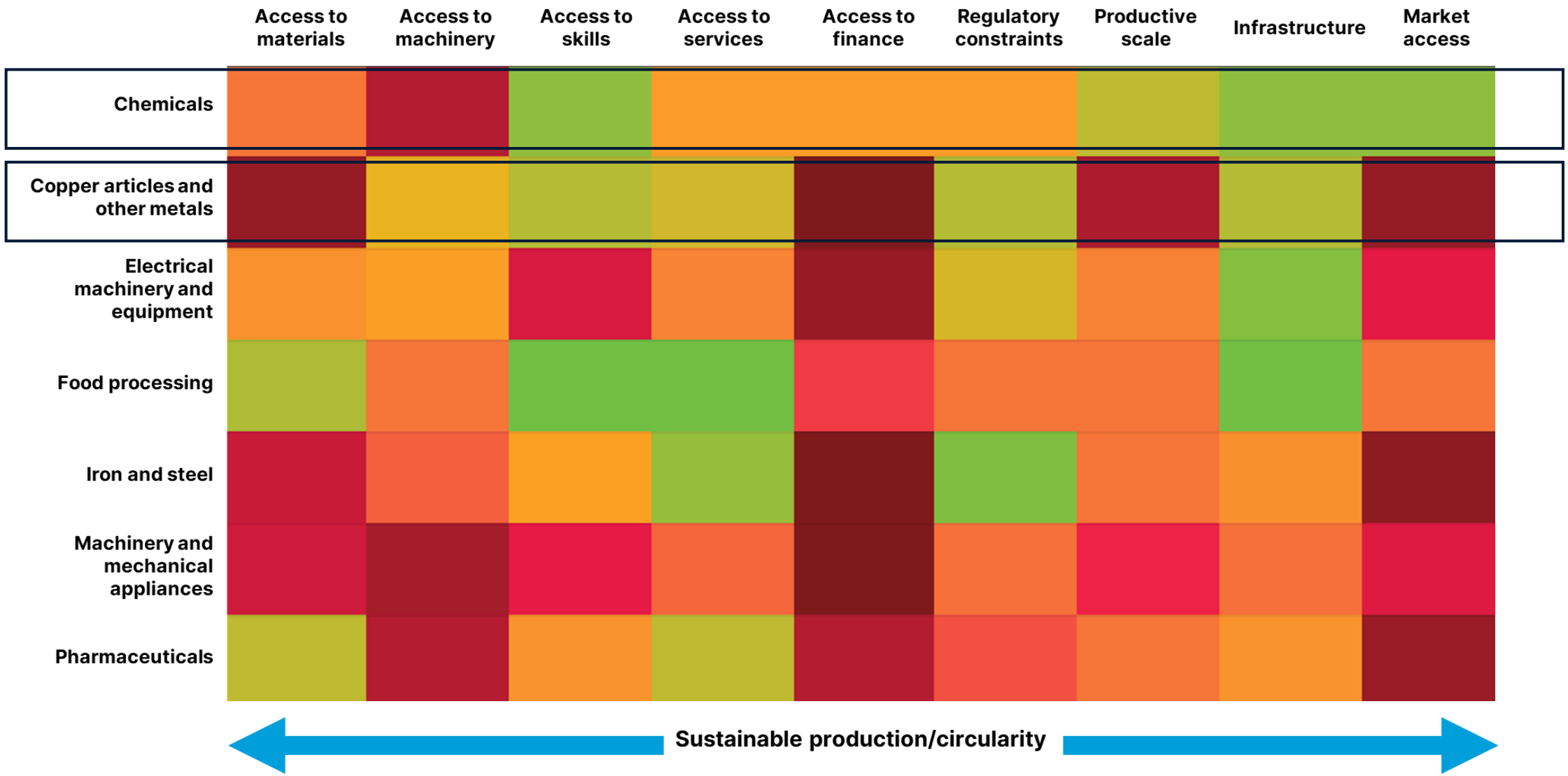
7 PRIORITY SECTORS

Potential to generate over **26,000** direct and indirect jobs (~3% of labour force in 2023)

TOTAL Investment:
US$ 2.13 Billion



Diversification constraints are product-specific



From Analysis to Action: Policy Workshop Outcomes

- Cross-ministerial engagement
- Sector-specific constraint mapping
- Alignment of existing instruments to priority product clusters
- Identification of quick wins and medium-term reforms
- Consensus on coordination and delivery mechanisms

Policy Instrument Example

Proposal	Battery Assembly Skills Accelerator Programme
Sector	Electrical machinery and equipment
Gap	Lack of practical experience in battery assembly and control systems
Instrument description	6–12-month apprenticeships for ~100 graduates per year. Gender-targeted incentives (bonuses), with at least 40 per cent of placements for women. Temporary onboarding/supervision/training subsidies to host firms.
Responsible institutions	NTA; Ministry of Education, Innovation, Youth, Sports, Arts and Culture (MEIYSAC); participating firms.
Delivery mechanism	Competitive firm applications; training logs; quality reviews; placement matching; National Qualifications Framework (NQF)-aligned outcomes.
Timeframe	Two-year pilot 2026-2027
Enabling conditions	Training levy; private sector buy-in; transparent rules; monitoring and tracer studies.

How product-level coordination looks in practice

Sector	Gaps	Proposed actions	Main actors
Articles of Copper (Copper wire, strips in coils, bars, rods & profiles, tubes)	• **Skills gaps in metallurgy, electromechanics and automation;** • **limited applied R&D;** • **certification bottlenecks;** • **high capital costs;** • weak domestic processing ecosystem	• **Introduce targeted training and apprenticeships in metallurgy, electromechanics and industrial automation under the National Training Fund** • **Strengthen university–industry co-delivery models (UNAM, NUST, TVET) with dual training and applied research** • **Embed standards compliance and pre-compliance testing through NSI and NMRC** • **Deploy blended financing tools (equipment subsidies, concessional credit, capex rebates) through DBN** • Develop shared, multi-user technology platforms and pilot parks to reduce entry barriers • Use public procurement as a market-shaping lever	• Ministry of Industries, Mines & Energy (MIME) • Ministry of Finance & Public Enterprises • DBN • Namibia Standards Institution (NSI) • Namibia Training Authority (NTA) • NUST / UNAM • NamPower • Private fabricators • NMRC; DBN; NIPDB;

From opportunity to delivery

The opportunity is real

165 validated products

7 priority sectors

US$ 2.13 billion investment

~26,000 potential jobs

The constraints are identified, and differ by sector

Iron & steel → finance and market scale

Pharmaceuticals → regulatory and procurement capability

Machinery → equipment and skills upgrading

Food processing → machinery, logistics and compliance

The core task: institutional coordination

Prioritize a national product portfolio

Align instruments around product clusters

Strengthen standards and regulatory capacity

Leverage SADC and regional market access

Thank you

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