



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

ADB

Partners:  UK Government



*Aligning Support for Responsible
Mineral Supply Chains for a Secure and
Resilient Clean Energy Future*

**United Nations Industrial Development
Organization (UNIDO)**
Deep Dive Workshop
Asia Clean Energy Forum 2026

Audience Poll: which intervention would most accelerate responsible and resilient critical mineral supply chains in Asia-Pacific?

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UNIDO's Vision 2050 for Global Energy Transition and Critical Minerals

UNIDO is the specialized agency of the United Nations that promotes and accelerates inclusive and sustainable industrial development.

UNIDO Vision 2050 positions critical minerals as foundational to the global energy transition, emphasizing responsible resource extraction, efficient material use, urban mining and technology can decouple material demand from primary extraction and support sustainable energy transitions.

Vision prioritizes fair and sustainable global supply chains, including through the **Global Alliance for Responsible and Green Minerals**.



UNIDO Industrial Development Report 2026: Case Studies in Asia-Pacific

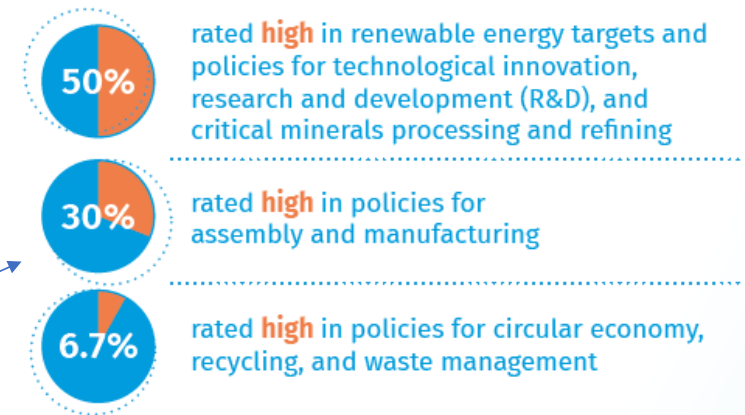
- ❖ SE Asia: efforts to localize critical minerals processing already yielding results. Indonesia’s export ban on nickel has stimulated foreign direct investment in processing facilities, generating significant diversification and domestic value addition.
- ❖ West Asia: KSA positioning mining in its economic diversification strategy with beneficiation projects to transform raw ores into higher-value products such as aluminium, fertilizers and battery minerals.
- ❖ East Asia: Mongolia has initiated small-scale production of value-added goods, such as copper cathodes.



Main Megatrend	Sectoral Opportunities	Drivers
Energy transitions	Critical minerals processing	Growing demand for critical minerals from clean-tech industry and semi-conductor industry

Importance of Accelerating Demonstration Projects in Critical Minerals

- ❖ Almost **35% of emissions reductions necessary** for achieving climate targets by 2050 will come from technologies that are still in the pilot or demonstration phases (IEA).
- ❖ Global demand for critical minerals is expected **to double by 2030 under current policies** (IEA).
- ❖ Critical minerals **extraction could increase by up to 500% by 2050** to meet secure, resilient energy demands (UNIDO, 2025; WB, 2020).
- ❖ UNIDO's critical minerals market assessment rated 30 developing countries according to their **policy readiness level**.



Examples of Multilateral Critical Minerals Financing Mechanisms		
Organization	Initiative	Funding
UNIDO	Accelerate-to-Demonstrate (A2D) Facility	GBP 65m (~USD 85m) - including CM
World Bank	Resilient and Inclusive Supply-Chain Enhancement (RISE) Partnership	USD 75m – including CM
	Climate-Smart Mining Initiative	USD 50m
	Energy Sector Management Assistance Program (ESMAP)	USD 1bn - CM part of battery storage program
ADB	Critical Minerals-to-Manufacturing Financing Partnership Facility (CMM-TF)	USD 20m + GBP 1.2m
EU	EU Horizon Europe	EUR 95.5bn - CM part of broader innovation program



Access the
report here

UNIDO Critical Minerals Market Assessment

Critical Minerals: technological innovation in midstream and downstream segments of the value chain in developing countries relies primarily on technology transfer from developed countries, though local innovation is now slowly emerging.



ASP

- Tech for processing nickel laterites (U/M)
- Tech for producing battery raw materials and battery-grade products (M)
- Tech for producing high-purity silicon ingot for silicon wafers, and solar cells, for solar panel manufacturing (D)
- Tech for recovering energy-critical metals (e.g. nickel hydroxide) from recycled lithium-ion batteries (D)

Access the market assessment here:



UNIDO Critical Minerals Financing Case Study: *Accelerate-to-Demonstrate (A2D) Facility*

Objectives

The **A2D Facility** aims to accelerate the commercialization of innovative climate solutions in developing countries by supporting catalytic and scalable ‘lighthouse’ demonstration projects in:

- Critical minerals
- Clean hydrogen
- Smart energy
- Industrial decarbonization



Initial Funding and Timescales

- Initial contribution of ~USD 85 million from the UK Government
- Initially operates from **April 2023 to March 2029**
- Global (**developing country-focused**) Facility
- **Grants of USD 1-5 million** per demonstration project for ~3-year projects
- **First cohort of demonstration projects** supported through first call-for-proposals in 2024 (in Kenya, Namibia, Nigeria, Nepal and Tanzania)
- **Second cohort of demonstration projects** supported through second call-for-proposals in 2025 (in Kenya, Namibia, Nigeria and South Africa).
- **Third call-for-proposals** open from **14 April–18 June 2026**.
- Main Sustainable Development Goals (**SDGs**)-of-focus:



Activities bringing **transformational solutions** to the market at scale.

Providing grant support for implementing transformational demonstration projects with strong scalability potential, and which create and **disseminate knowledge and experiences** to foster collaboration, learning and scalability. Planning-related activities for demonstration projects are out-of-scope.

A2D Facility Third Call-for-Proposals Open

Further information and how to apply:

Please visit UNIDO's Procurement portal (RFX No. 7000008435) for detailed information on the eligibility requirements, selection criteria and submission guidelines: [UNIDO Procurement portal](#) and [United Nations Global Marketplace](#). Proposals can be submitted up until **16:00 CET on 18 June 2026.**

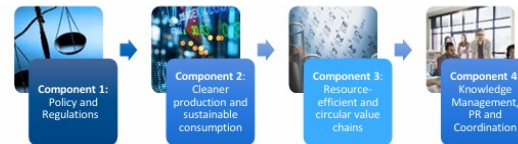
All enquiries on the call must only be sent to:

- Procurement Officer Ms. Ziniel (email: C.Ziniel@unido.org)
- with copy to Ms. Gavranic (email: J.Gavranic@unido.org),
- with copy to Ms. Dorner (email: E.Dorner@unido.org)
- with copy to Mr. Hemetsberger (email: M.Hemetsberger@unido.org)

UNIDO Critical Minerals Financing Case Studies: *Global Electronics Management Program and Artisanal Mining*



Africa: Botswana, Djibouti, Ethiopia, Eswatini, Lesotho, Mozambique, Namibia, Somalia, South Africa
Asia: Cambodia, Kazakhstan, Philippines, Türkiye, Vietnam
LAC: Colombia, Peru.



- Coverage: 16 countries
- Total GEF budget: USD 68,000,000
- UNIDO share: USD 25,000,000
- UNIDO countries: Peru, Philippines, Türkiye
- Partners:    

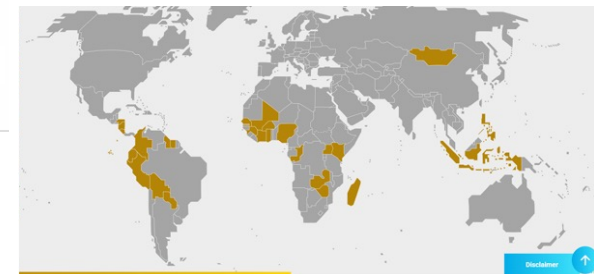


Global Electronics Management Program

Artisanal Mining: Planet GOLD



- Formalization
- Access to Markets
- Technical Solutions
- Access to Finance



\$254 million in GEF financing (Gold and Gold+ programs) In 25 countries

UNIDO share: 37 MUSD

UNIDO target countries: Bolivia, Burkina Faso, Ghana, Madagascar, Mali, Mongolia, Nicaragua, Nigeria, Philippines.

- Completed:**  Burkina Faso  Mongolia  Philippines
- Ongoing:**  Bolivia  Nicaragua
-  Ghana  Madagascar  Mali  Nigeria





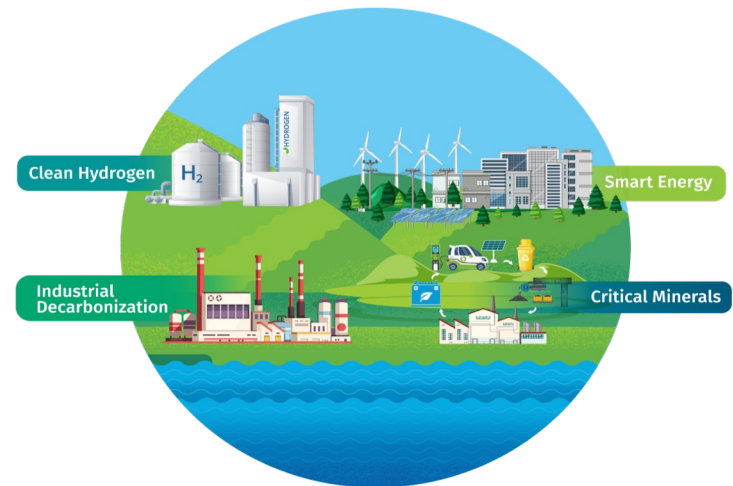
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Partners:  UK Government



Further Information

- **A2D Facility Website:** [Visit the website here](#)
- **A2D Facility LinkedIn Account:** [Follow the LinkedIn page here](#)
- **A2D Facility Mailing List:** [Join the mailing list here](#)
- **A2D Facility Year 1 Annual Report:** [Access the Annual Report here](#)
- **A2D Facility Year 2 Annual Report:** [Access the Annual Report here](#)
- **A2D Facility Year 3 Annual Report:** [Access the Annual Report here](#)
- **A2D Facility Market Assessments:** [Access the reports here](#)
- **A2D Facility GESI Framework:** [Access the GESI Framework here](#)
- **A2D Facility ESMF:** [Access the ESMF here](#)
- **A2D Facility third Call for Proposal:** [Procurement Portal](#) or [UNGM](#)



Panel 1: Aligning Finance for Critical Minerals-to-Manufacturing



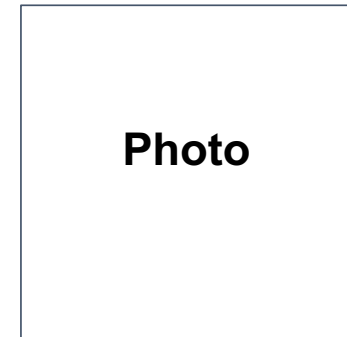
Moderator:
Mr. Peter Warren
UNIDO



Ms. Chau Tonnu
UK Government



Kwang Joe Jeong
ADB



TBC
TBC

Annex: A2D Facility Critical Minerals Projects

Project: Lithium-Ion Transport Solutions in Tanzania

Objective

To accelerate the commercialization of innovative clean energy technology in the transportation sector using locally manufactured Electric Charged Lithium-Ion Batteries in Tanzania.

Transformational Project

The project's business model is based on three main pillars: Local lithium battery manufacturing, chassis production and assembly, & charging and battery swapping infrastructure.

Expected Impacts

Lower CO₂ emissions from electric mobility; reduce fossil fuel use; lower fuel and maintenance costs; create skilled and unskilled jobs; reduce reliance on imports.

First-year impacts

40.5 tCO₂e
reduced/avoided

42 jobs
created/supported

11 trained

27% women's
participation

PROJECT KEY INFORMATION

LEAD ORGANIZATION

Oasis Financial Services Limited

CONSORTIUM PARTNERS

- Payless Energy Limited

DURATION

01 Feb 2025 - 29 Feb 2028

LOCATION

Tanzania



Annex: A2D Facility Critical Minerals Projects

Project: Green Processing of Rare Earth Critical Minerals in Namibia

Objective

To establish Namibia’s first green rare earth elements processing plant in Namibia using renewable energy and a hydrogen-based melting furnace.

Transformational Project

The project will establish Namibia’s first green rare earth processing plant, separating high-value minerals using captive renewable power and a clean hydrogen furnace. It creates a replicable model for greener critical minerals processing..

Expected Impacts

Reduce emissions from rare earth mineral processing; build local technical skills; increase in-country value addition and support greener critical minerals supply chains.

Expected Impacts

**311 tCO₂e
reduced/avoided**

**24 jobs
created/supported**

50 trained

**50% women’s
participation**

** Expected impacts are estimates and may change once implementation starts*

PROJECT KEY INFORMATION

LEAD ORGANIZATION

Ombu Capital (Pty) Ltd

CONSORTIUM PARTNERS

- Aurisim Investments

DURATION

01 Mar 2026 - 31 Oct 2028

LOCATION

Namibia



PROJECT KEY INFORMATION

Annex: A2D Facility Critical Minerals Projects

Project: Recycling Lithium Batteries for Critical Minerals in Nigeria

Objective

To commission Nigeria’s first industrial-scale lithium-ion battery recycling facility and recover critical minerals from waste batteries.

Transformational Project

The project processes used batteries into black mass and establishes 20 formal collection stations. It creates a domestic circular supply chain for lithium, cobalt and nickel while improving battery waste management.

Expected Impacts

Recover lithium, cobalt and nickel from waste batteries; formalize safer battery collection; create green jobs and strengthen domestic critical minerals supply chains.

Expected Impacts

13,500 tCO₂e
reduced/avoided

96 jobs
created/supported

240 trained

40% women’s
participation

* Expected impacts are estimates and may change once implementation starts

LEAD ORGANIZATION

Hinckley E-waste Recycling Limited

CONSORTIUM PARTNERS

- University of Birmingham
- Federal University of Technology Owerri

DURATION

01 Mar 2026 - 31 Oct 2028

LOCATION

Nigeria

