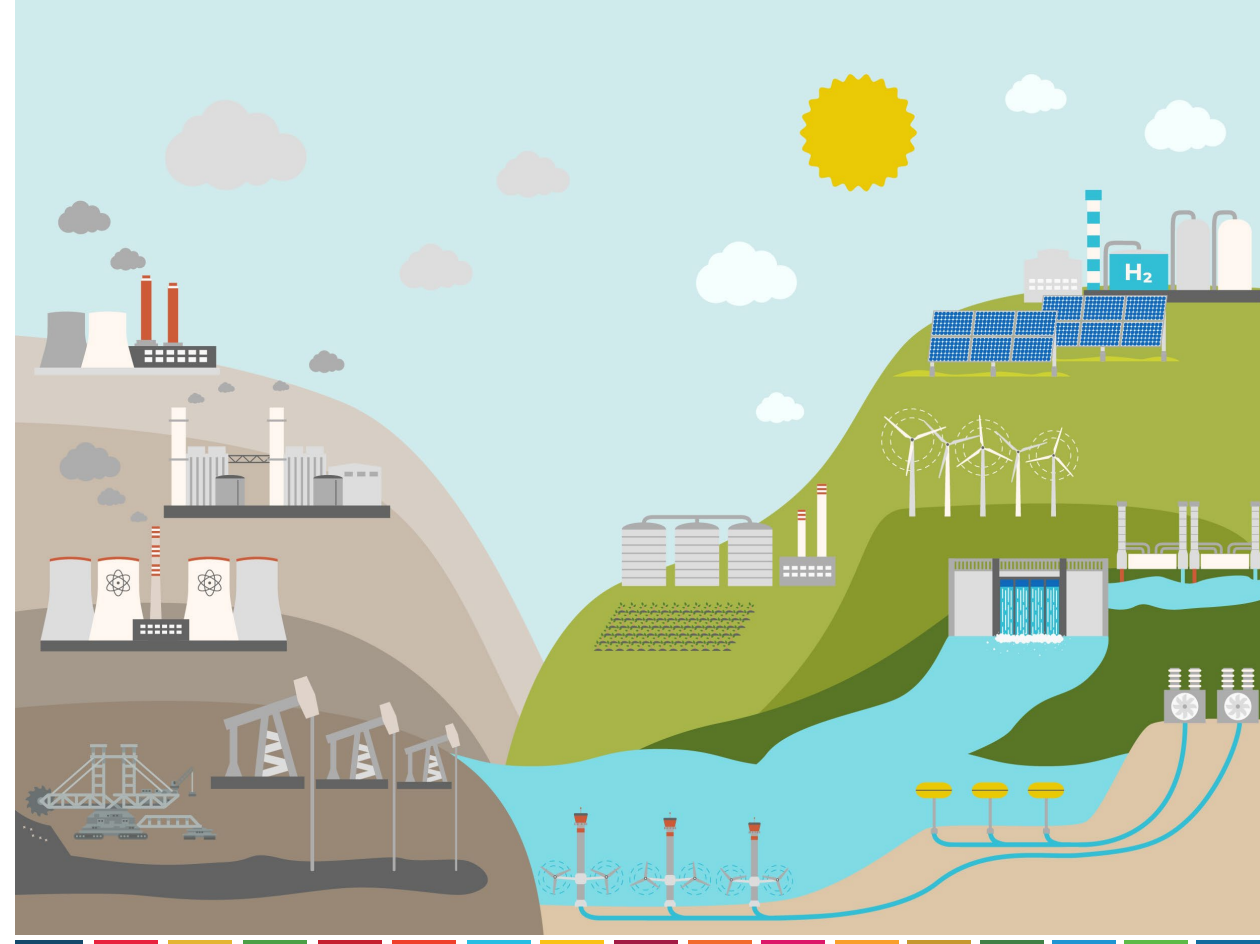


Promoting Sustainable Development  
of Clean Energy Transition Minerals  
through UNRMS



**RESOURCE MANAGEMENT WEEK**  
**2024**



**UNECE**

## Sustainable minerals development: important and timely

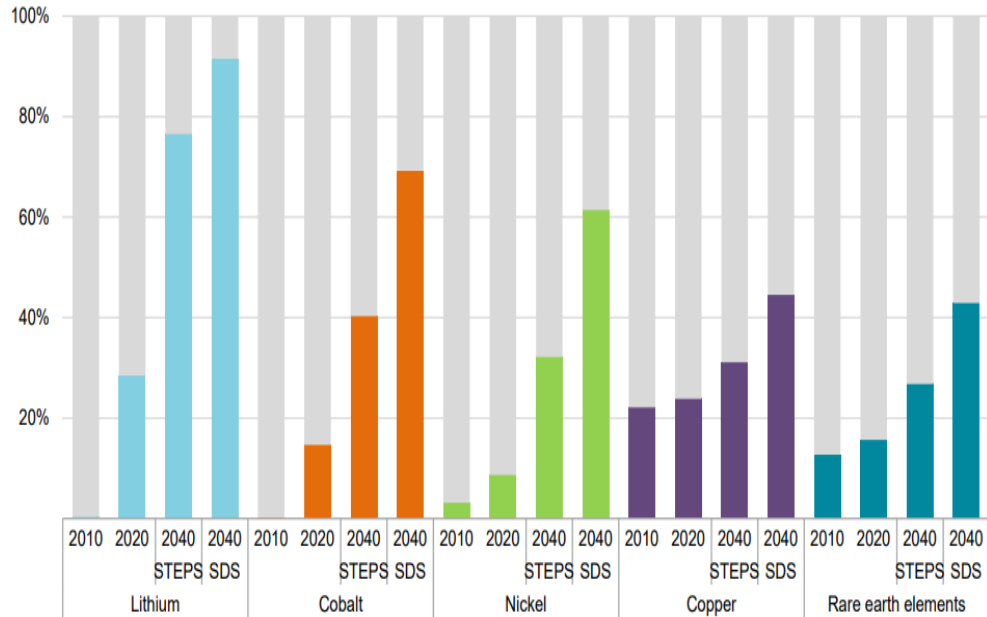
The energy transition implies a shift from a fuel-intensive to a material-intensive energy system. The transition has profound implications for economies and extractive industries, while the development of low carbon technologies will change the demand structure of metals in the future.



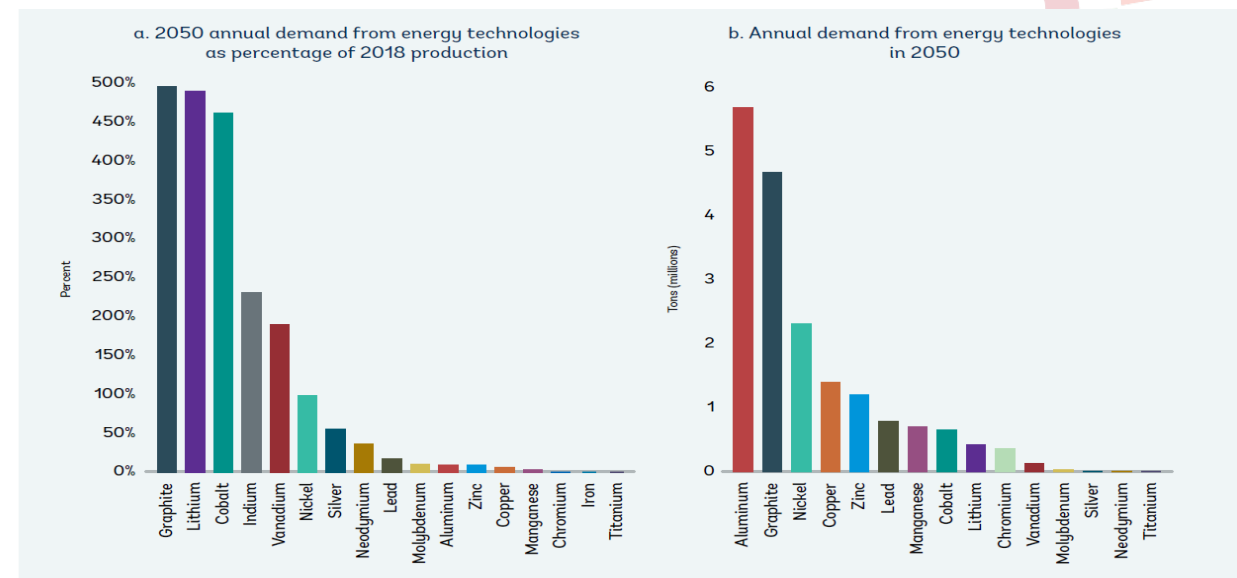
- Wind energy, solar cells, batteries, and fuel cells are highly dependent on metals such as platinum, cobalt, lithium and REEs, which are mined in only a few countries.
- Renewable power generation, grid expansion, batteries and electric motors are the main drivers of critical materials demand.
- Some CRMs are used across a wide variety of clean energy and storage technologies. Others are predominantly used in one or two types of clean energy and storage technologies.

# The outlook projections all see the scale of demand for critical minerals showing significant growth potential

	Current supply	2050	Comment
<b>Copper</b>	30 (2020)	50 - 70	Energy is only part of the demand
<b>Nickel</b>	2.54 (2019)	5 - 8	Currently mainly for stainless steel
<b>Lithium (LCE)</b>	0.41 (2019)	2 - 4	Mainly for batteries
<b>Cobalt</b>	0.14 (2020)	0.5 - 0.6	Mainly for batteries
<b>Neodymium</b>	0.03	0.2 - 0.5	Mainly for permanent magnets



IEA



Note: 2DS = 2-degree scenario.

# Opportunities and challenges in CETM development

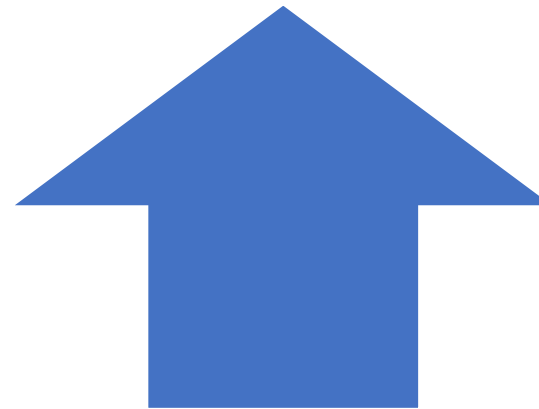


## Opportunities

- Job creation
- Infrastructure development
- Contribute to low-carbon economy
- Low-carbon CRM production
- Improved governance capacity

## Challenges

- Resource curse
- Regional distribution / just transition
- Fossil fuels sectors / GHG intensive
- Air and water degradation / biodiversity loss
- Health and safety
- Impact on local communities
- Social inequality (Gender, child labour)



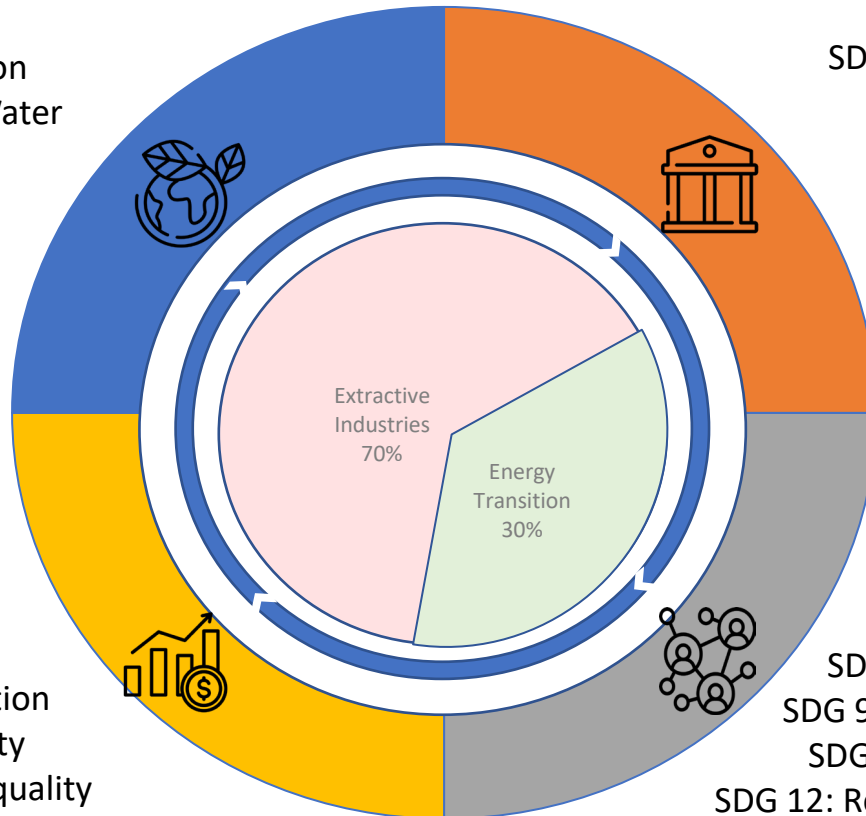
# Relationship between CETMs and sustainable development

## Environmental

- SDG 13: Climate Action
- SDG 14: Life Below Water
- SDG 15: Life on Land

## Economic

- SDG 1: No Poverty
- SDG 2: Zero Hunger
- SDG 3: Good Health
- SDG 4: Quality Education
- SDG 5: Gender Equality
- SDG 10: Reduced Inequality



## Governance

- SDG 16: Peace and Justice Strong Institutions
- SDG 17: Partnerships to achieve the Goal

## Social

- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable and Clean Energy
- SDG 8: Decent Work and Economic Growth
- SDG 9: Industry, Innovation and Infrastructure
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production

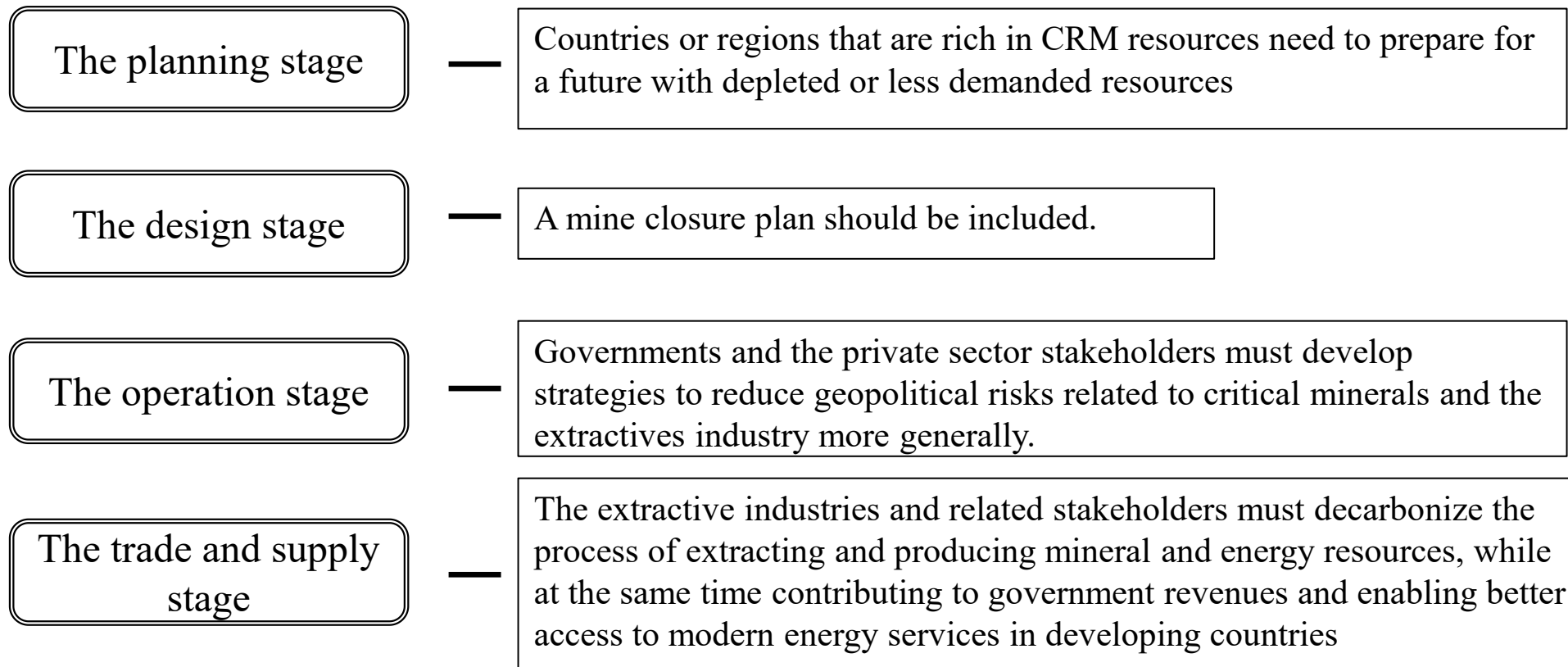
Extractive industries alone are closely related to nearly all Sustainable Development Goals (SDGs).

Utilization further emphasizes their impact on the SDGs.

# Guiding principle: A holistic and life-cycle (system) approach

A more efficient, systemwide, holistic and life-cycle approach should be required to align the critical mineral development with SDGs.

Policymakers need to incorporate critical minerals into responsible mining policies, regulations, and legislation and governments need to combat corruption, build regulatory capacity and protect communities.



# Embracing UNRMS for Sustainable CETMs Development: A Path Forward

- UNRMS is a comprehensive framework designed by the United Nations to facilitate sustainable management of natural resources.
- It integrates environmental, economic, and social dimensions into resource management, ensuring that extraction and development activities support broader sustainability goals.
- **Benefits for CETMs Development:**
  - ✓ **Risk Mitigation:** Helps in identifying, assessing, and managing environmental and social risks associated with CETMs extraction and development.
  - ✓ **Market Access and Investment:** Enhances access to international markets and attracts investment by demonstrating commitment to sustainability.
  - ✓ **Long-term Viability:** Ensures the long-term viability of CETMs projects by aligning them with sustainable development objectives, thereby securing resources for future generations.
- **Call to Action:**
  - ✓ **Adopt UNRMS:** Policymakers, industry leaders, and stakeholders in the CETMs sector to adopt the UNRMS framework for guiding their operations and strategies.
  - ✓ **Collaborative Implementation:** Collaborative efforts between governments, the private sector, civil society, and international organizations to implement UNRMS effectively and achieve sustainable outcomes.
  - ✓ **Continuous Improvement:** Ongoing assessment and adaptation of practices in response to evolving sustainability challenges and opportunities.



Global voluntary system for resource management to be used by governments, industry, investors, and civil society;

THE VIEWS EXPRESSED ARE THOSE OF [AUTHOR NAME AND/OR ORG] AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE UNITED NATIONS.

# Thank you!

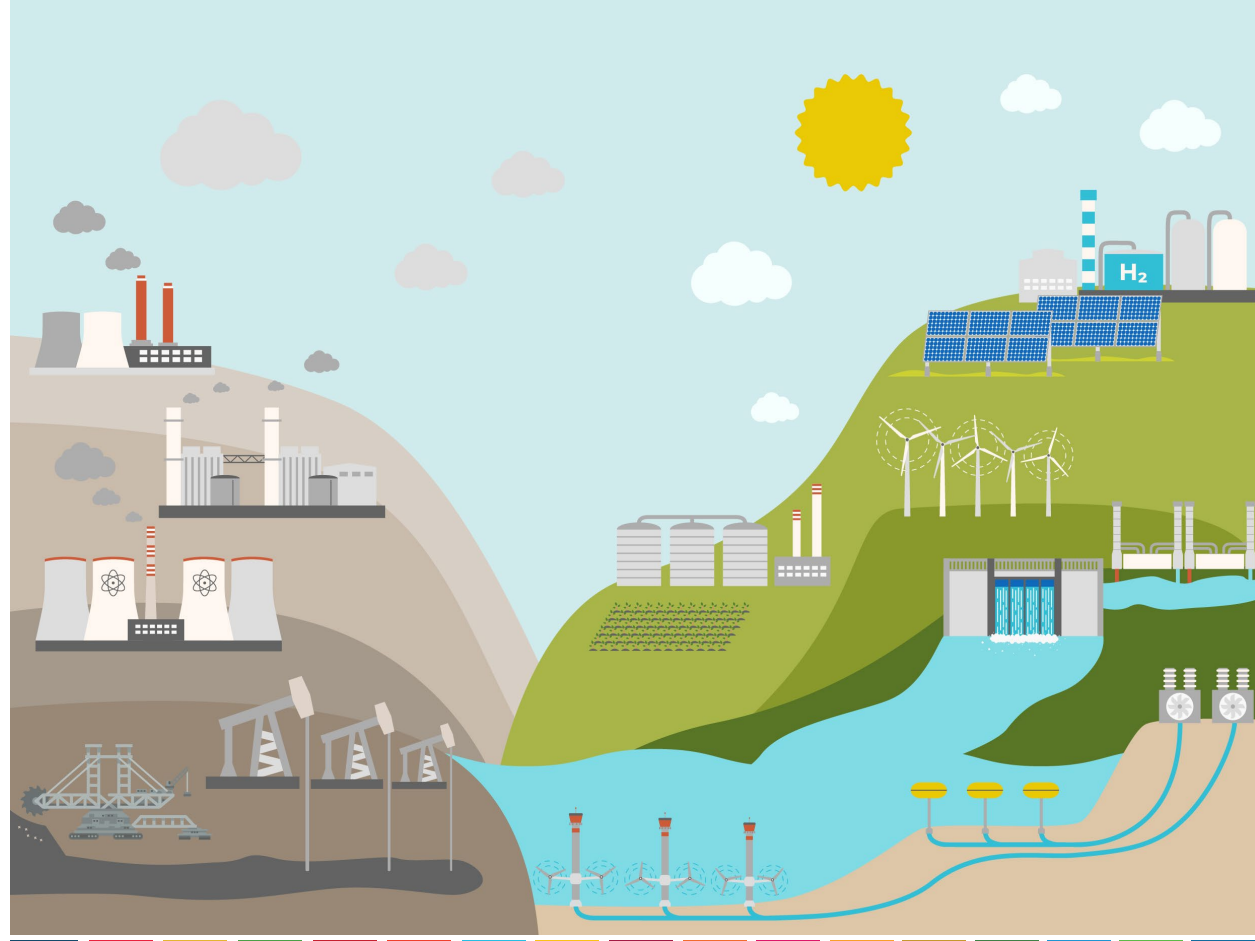
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23 April 2024, Geneva



## RESOURCE MANAGEMENT WEEK

### 2024



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## Welcome to the International Society for Energy Transition Studies

To facilitate an equitable and inclusive transition of energy and relevant sectors toward a sustainable low-carbon future with consideration of economic development, social equity, and environmental stewardship through international partnerships.



ISETS is a worldwide, independent, non-profit membership-based professional organization headquartered in Australia, which has 1000 members in 60 nations and more than 10 international organizations. ISETS aims to facilitate a just, equitable and inclusive transition of energy and relevant sectors toward a sustainable low-carbon future through knowledge-sharing and dialogue. ISETS is open to anyone interested. Registration (at [www.isets.org](http://www.isets.org)) as an Associate Member is free permanently.

# Speech by the Under-Secretary-General of the United Nations and Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP) at the Inaugural ISETS International Conference (15-19 October 2023, Bangkok)



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## ISETS International Conference and the Asia-Pacific Energy Week

Delivered by Armida Salsiah Alisjahbana

16 October 2023

Excellencies, distinguished delegates, ladies and gentlemen,

The issue of energy transition is of utmost importance. Energy is cross-cutting. It sits at the core of the sustainable development process and the global effort on climate change.

I welcome the formation of expert networks, such as the International Society for Energy Transition Studies (ISETS), dedicated to unpacking the complexities of energy transitions and their wider connections with economic development and social prosperity.

Research institutes and think tanks play an indispensable role in shaping the concepts, frameworks and ideas that are needed to manage the complexities of the energy transition and formulate strategies to chart the region's path towards a clean and sustainable energy future.

We have also worked with many member States to develop SDG 7 road maps, national cooling action plans and studies on the phase-down of coal.

We have joined hands with many ISETS members on these efforts, and we look forward to greater collaboration in the future. As we embark on this transformative journey together, let me express our deep hopes and aspirations for ISETS.

We anticipate that ISETS will evolve into a valuable hub of knowledge and collaboration, unwavering in its commitment to foster dialogue and effectively gather and share information on technologies, products, solutions and experiences.

It is crucial that ISETS can increasingly attend to the growing needs for support in developing and least developed countries, regions and groups, contributing to a just, equitable and inclusive energy transition that leaves no one behind.

# ISETS-ESCAP Youth Voice Competition



## ISETS-ESCAP Global Competition of Youth Voice on Energy Transition & Youth Dialogue

A joint initiative with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

The 2024-2026 Youth Voice Competition will be jointly organized by ISETS and ESCAP. Winners will be invited to the ESCAP Headquarters in Bangkok to participate in the Youth Dialogue and UN IEFSD (2-4th Dec 2024).

# ISETS YOUTH VOICE COMPETITION FOR JUST ENERGY TRANSITION

*Youth voice matters!*



ESCAP

## Types of Entries

1. **New Models or Frameworks** for energy systems, consumption, distribution, or policy that promote sustainability and efficiency.
2. **Innovative Action Plans or Solutions:** Comprehensive strategies or action plans aimed at facilitating the energy transition at local, regional, national, or global levels.
3. **New Products:** Technological innovations, product designs or business models that contribute to renewable energy generation, energy storage, energy efficiency, or reduction in energy consumption.
4. **Technology Applications and Software Solutions:** Software, apps, or platforms that support energy transition goals. This could include blockchain for energy trading, AI for optimizing energy consumption, or digital platforms for promoting community-based renewable energy initiatives.
5. **Educational and Awareness Campaigns.**
6. **Research Studies and Analyses** that provides new insights into the energy transition, including market analyses, policy impact studies, or technological feasibility studies.
7. **Pilot Projects or Case Studies:**
8. **Artistic and Creative Expressions** to explore and communicate themes related to energy transition

## Global Call For Nomination 全球征集

This initiative aims to highlight innovative practices, technologies and solutions that significantly contribute to global efforts towards achieving a sustainable low-carbon future.

The nominated cases can range from groundbreaking research, transformative projects or practices, effective policies to revolutionary products or technologies.

Submissions are open permanently. However, for those wishing to join the exhibition at the 2nd International Conference in Nanjing, China, on November 1-4, 2024, the deadline is August 31, 2024.

Contact Information: [isets@isets.org](mailto:isets@isets.org); [secretariat@isets.org](mailto:secretariat@isets.org)  
For more information and to submit your nomination, please visit

<https://isets.org/nominations-for-outstanding-cases/> .

