



# Supporting the Next Generation of NDCs: Renewables Powering the Future

Webinar on the Support Ecosystem for the Next Round of Nationally Determined Contributions  
RCC Asia Pacific, March 27<sup>th</sup> 2024

## IRENA

- » Intergovernmental Organization (IGO)
- » Established in 2011
- » Headquarters in Masdar City, Abu Dhabi, UAE
- » IRENA Innovation and Technology Centre – Germany
- » Permanent Observer to the United Nations – New York

### Mandate

To promote the widespread adoption and sustainable use of **all forms of renewable energy** worldwide



Bioenergy



Geothermal Energy



Hydropower



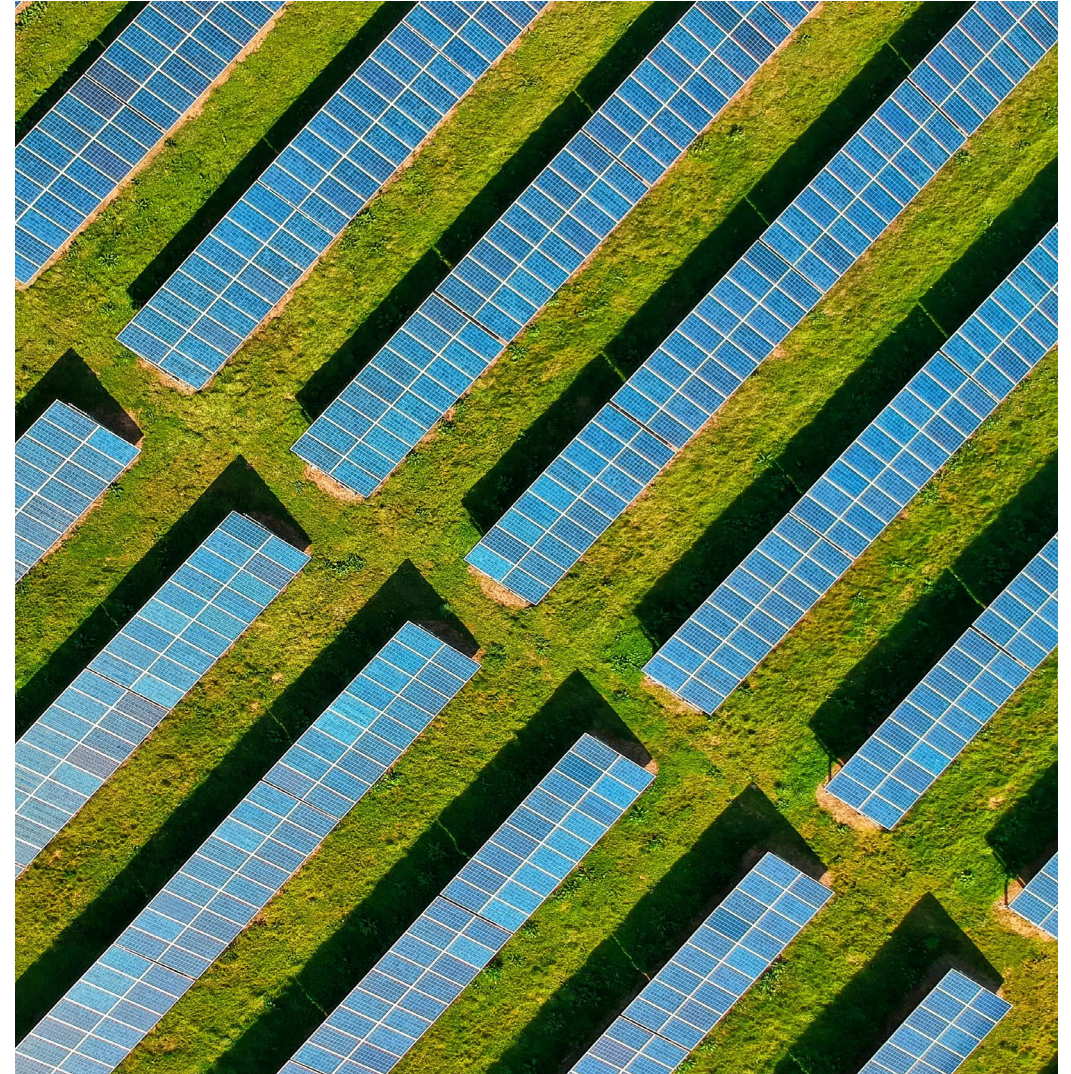
Ocean Energy



Solar Energy



Wind Energy





- 40** Input to NDC already provided
- 18** Implementation of support
- 7** Work plan development
- 18** Scoping

### Latin America and the Caribbean

Antigua and Barbuda	Bahamas	Trinidad and Tobago	Argentina
Belize	Colombia		Barbados
Cuba	Dominica		Guyana
Dominican Republic	Saint Lucia		Panama
Ecuador	Saint Vincent and the Grenadines		Perú
El Salvador			
Grenada			
Nicaragua			
Paraguay			
Saint Kitts and Nevis			
Uruguay			

**11**      **5**      **1**      **5**

### Europe

Belarus	Albania
North Macedonia	Bosnia and Herzegovina
	Türkiye

**2**      **3**

### Asia and the Pacific

Bhutan	Indonesia	Pakistan	Afghanistan
Fiji	Iraq		Cambodia
Jordan	Lao PDR		Kazakhstan
Kyrgyz Republic	Mongolia		Kiribati
Lebanon	Solomon Islands		Micronesia (Federated States of)
Myanmar			Niue
Nepal			Samoa
Palau			Saudi Arabia
Papua New Guinea			Tuvalu
Tonga			Uzbekistan
United Arab Emirates			

**11**      **5**      **1**      **10**

### Africa

Benin	Botswana	Chad	Ethiopia
Burkina Faso	Cameroon	Egypt	Ghana
Eswatini	Comoros	Morocco	Lesotho
Gabon	São Tomé and Príncipe	Rwanda	
The Gambia	Sudan	Senegal	
Liberia			
Mali			
Mauritius			
Mozambique			
Niger			
Nigeria			
Seychelles			
South Africa			
Uganda			
Zambia			
Zimbabwe			

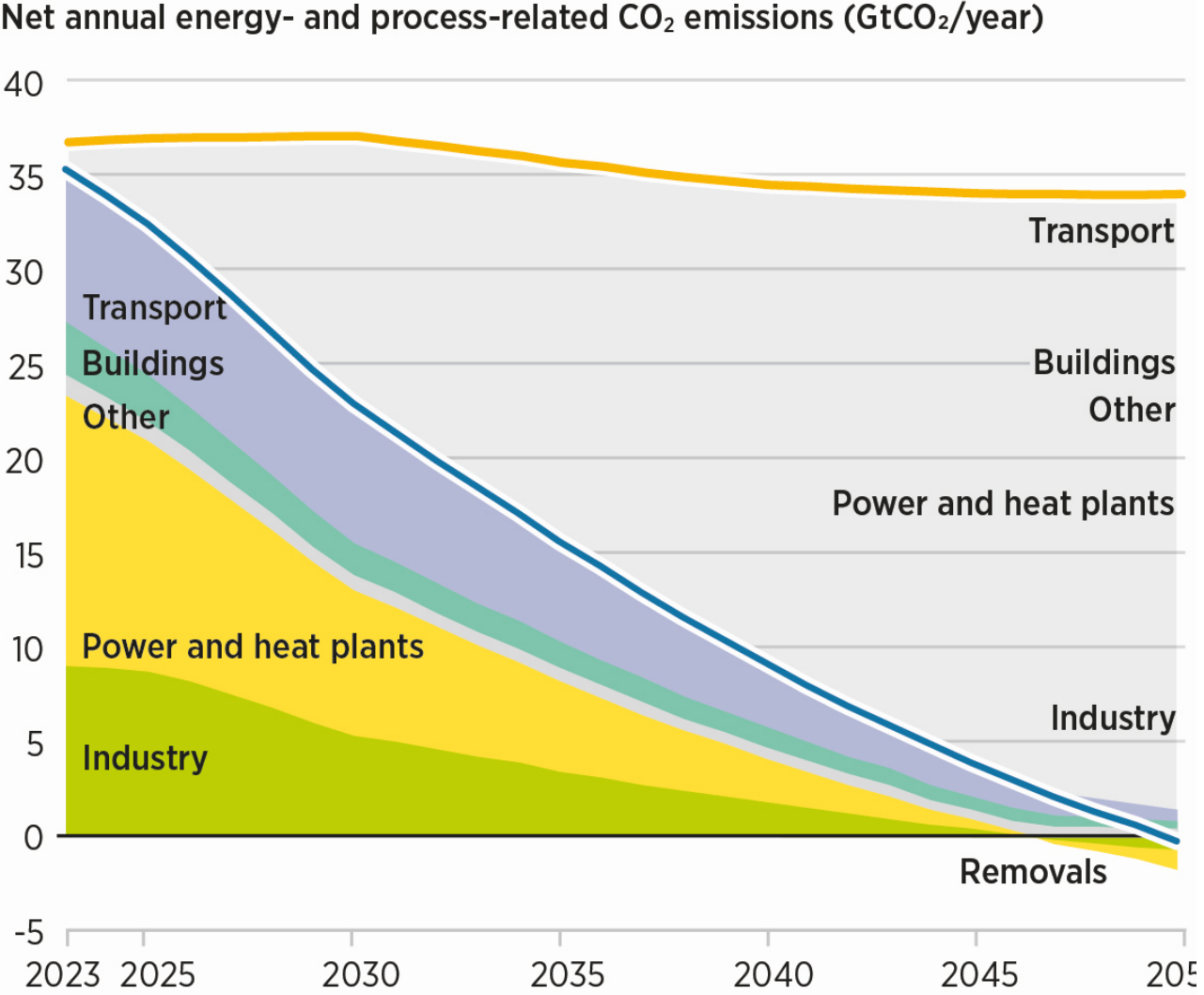
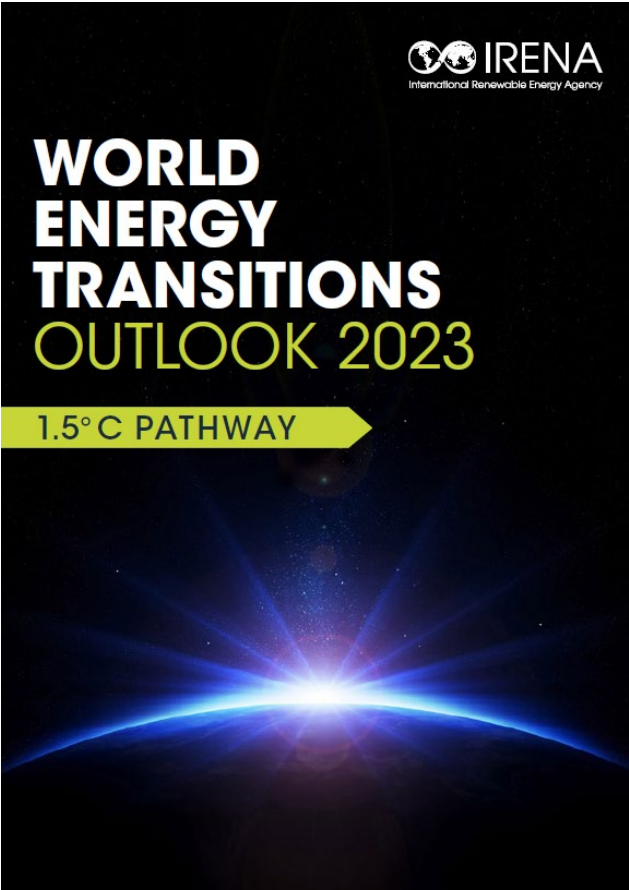
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## NDC 2.0

- IRENA’s support provided to 83 countries via 164 work packages tailored to the needs and priorities of Members that are Parties to the Paris Agreement.
- Support covers all global regions, with the Agency providing assistance to countries across Africa, Asia and the Pacific, Europe, and Latin America and the Caribbean.

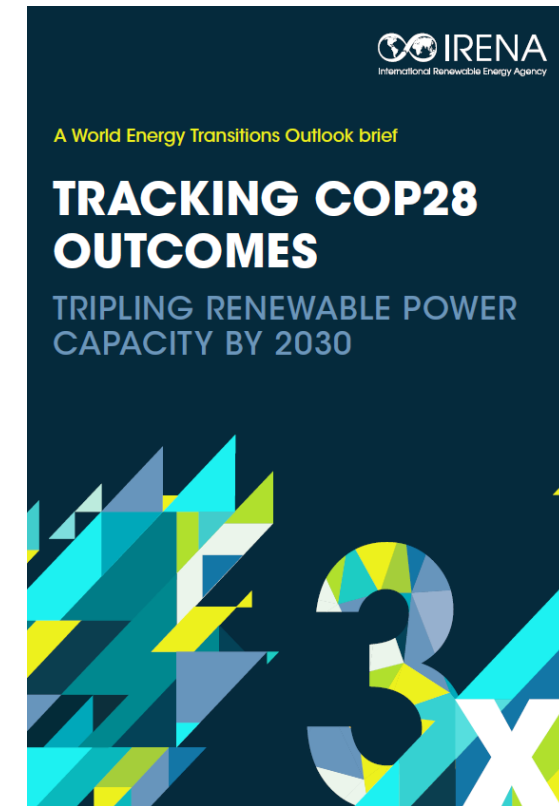
90% of all decarbonization in 2050 will come from renewables through direct low-cost energy supply, efficiency, electrification, bioenergy and green hydrogen



# Six key performance indicators to monitor progress towards the 1.5°C pathway

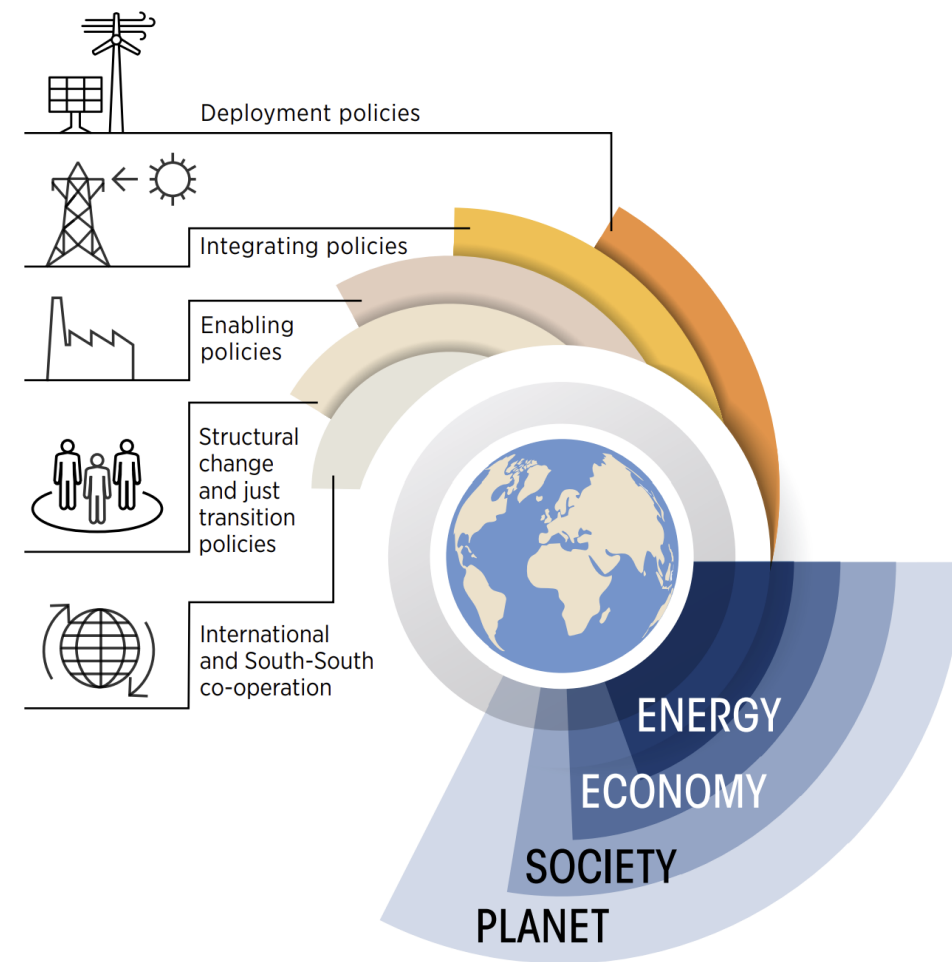
			Recent years	2030		2050	
			2020	PES	1.5°C Scenario	PES	1.5°C Scenario
<b>KPI.01</b> RENEWABLES (POWER)	Electricity generation (TWh/yr)	Global	7 468	16 504	27 358	38 118	82 148
		G20	6 237	14 269	22 397	31 071	60 547
	Renewable energy share in electricity generation (%)	Global	28%	46%	68%	73%	91%
		G20	28%	48%	69%	74%	91%
<b>KPI.02</b> RENEWABLES (DIRECT USES)	Renewable energy share in TFEC (%)	Global	18%	23%	35%	33%	82%
		G20	16%	22%	36%	35%	82%
	Modern use of bioenergy (EJ) <sup>1</sup>	Global	21	30	50	41	64
		G20	19	26	36	33	42
<b>KPI.03</b> ENERGY INTENSITY	Energy intensity improvement rate (%)	Global	1.7%	1.8%	3.3%	2.0%	2.8%
		G20	2.1%	2.1%	3.6%	2.3%	3.1%
<b>KPI.04</b> ELECTRIFICATION IN END-USE SECTORS (DIRECT)	Electrification rate in TFEC (%)	Global	22%	23%	29%	28%	51%
		G20	24%	26%	31%	32%	55%
<b>KPI.05</b> CLEAN HYDROGEN AND DERIVATIVES	Production of clean hydrogen (Mt)	Global	0.7 Mt/yr <sup>2</sup>	2	125	21	523
		G20	0.5 Mt/yr <sup>2</sup>	2	94	20	373
<b>KPI.06</b> CCS, BECCS AND OTHERS	CO <sub>2</sub> captured from CCS, BECCS and other removal measures (Gt)	Global	0.04 GtCO <sub>2</sub> /yr <sup>3</sup>	0.1	2.2	0.5	7.0
		G20	0.03 GtCO <sub>2</sub> /yr <sup>3</sup>	0.1	2.1	0.4	4.9

- Use of renewables to generate electricity
  - The amount of electricity generated from renewables
  - The share of renewables in the total electricity generated
- Direct uses of renewables
  - The share of renewable energy in total final energy consumption
  - The quantity of modern bioenergy used
- Improvements in energy intensity
- The electrification of end-use sectors
- Production and supply of clean hydrogen and derivative fuels
- The amount of carbon dioxide captured and removed by various methods

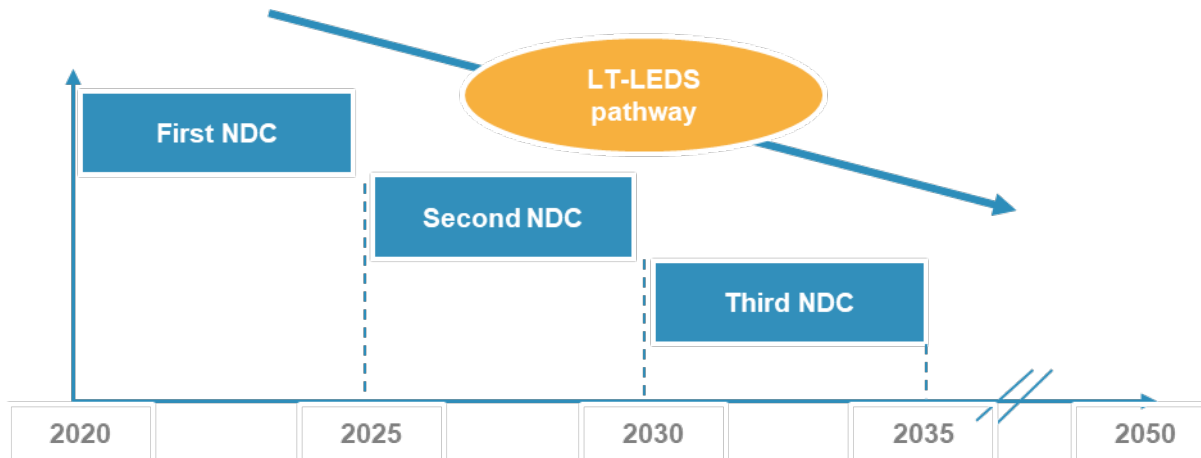
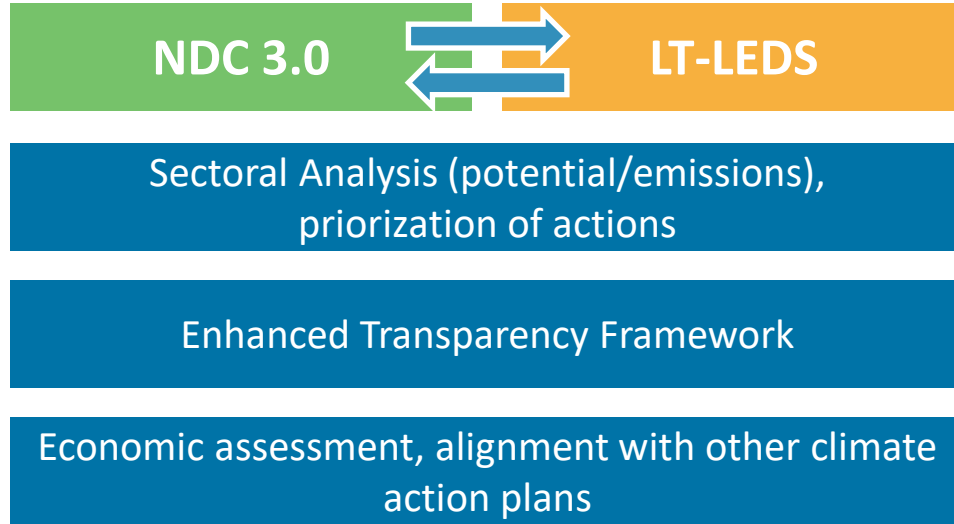


- The energy transition can succeed only if it is seen and experienced as just across different communities, countries and regions. This implies that policy making must be embedded in, or linked to, efforts to:
  - ✓ Narrow the vast inequities between rich and poor;
  - ✓ Make economies more sustainable; and
  - ✓ Mitigate the intensity and frequency of climate and other environmental calamities in the coming decades.
  - ✓ The energy transition alone cannot be expected to resolve these long standing and deeply structural problems. But holistic approaches can help to identify ways in which different domains of policy making can be interlinked better.

## A comprehensive policy framework for the energy transition



# NDC 3.0 do not work in silos, but they are integrated with existing national policies



- For NDC 3.0 to be effective, they must be harmonized with existing national policies.
- There is also a clear need to anchor NDCs in the LT-LEDs pathway, as the latter provide the necessary direction for the enhancement of the NDCs throughout the years.
- NDC 3.0 are also highly connected with sectoral decarbonization modelling, socio-economic assessment and M&E systems.
- Such synergies between NDC 3.0 with existing national policies is crucial for a coherent framework towards the implementation of the Paris Agreement.

# Content of Climate action plans under the Paris Agreement

## 1 Governance

- Secure high-level buy-in
- Establish institutional arrangements
- Plan for stakeholder engagement
- Define domestic objectives
- Design a work plan

## 2 Mitigation

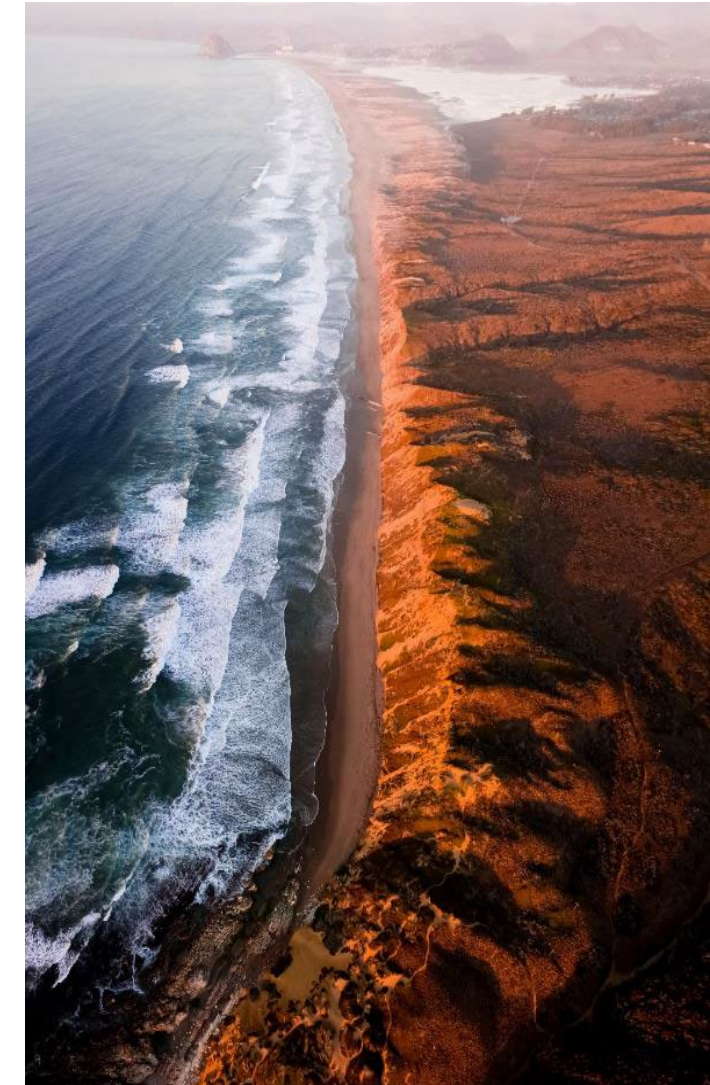
- Take stock of progress to date
- Take stock of long-term objectives
- Identify options for enhancement
- Aggregate, iterate and refine
- Reflect enhancements in climate plans

## 3 Adaptation

- Determine whether to include adaptation in climate plans
- Analyze links with other processes
- Determine relationship to adaptation communication (AC)
- Identify elements to be included and how to enhance them
- Integrate the selected elements into climate plans

## 4 Communication

- Collect information during the design of climate plans
- Elaborate with additional information where possible
- Communicate the NDC 3.0 and LT-LEDS domestically and internationally







**The abundance of technology options presents numerous opportunities for climate action.**

**Their growing adoption in many countries demonstrates their technical and economic viability as credible mitigation options**

- ✓ Cheaper renewable energy, energy efficiency and electric technologies go hand in hand for a needed transition.
- ✓ There are many available technology options to implement now for a positive impact for a just transition
- ✓ Lower middle-income countries rich in renewable energy need support with technology, training, and affordable financing to contribute fully to the global energy transition.

## Key considerations for ambitious NDC 3.0 and climate plans and strategies

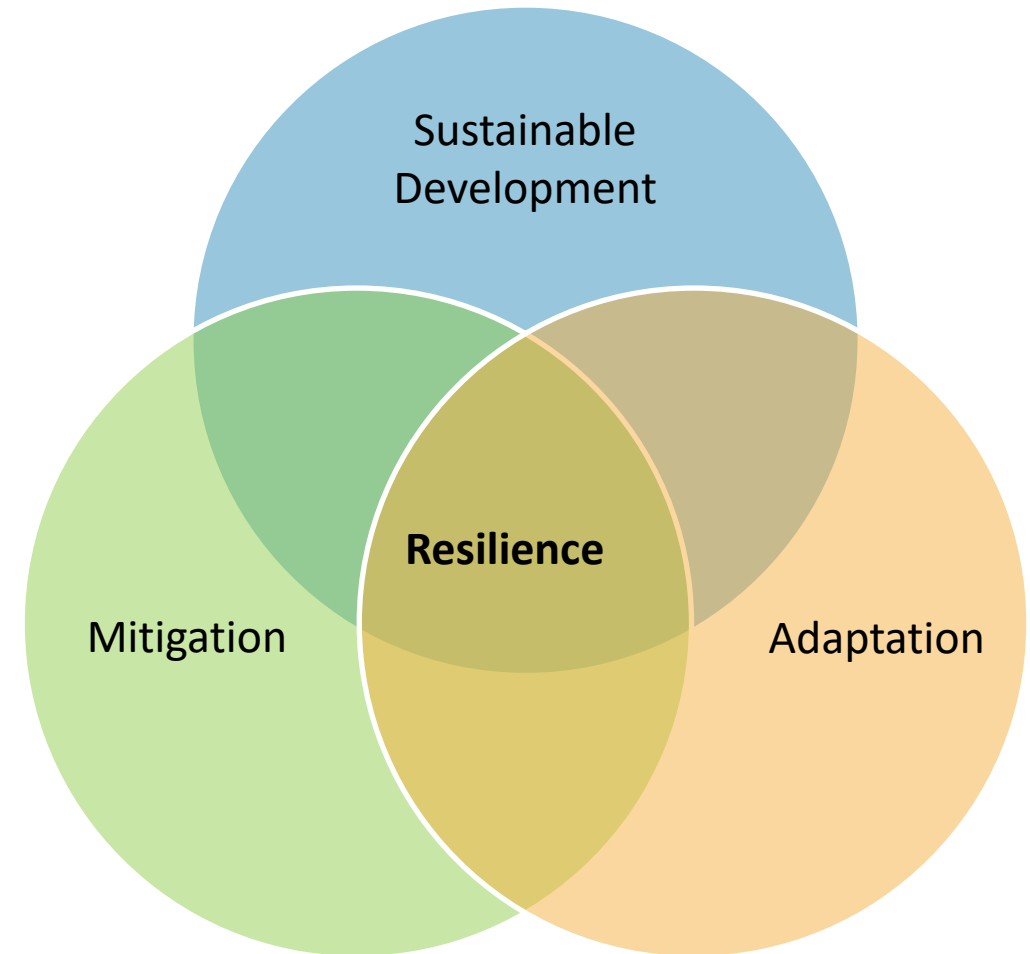


- Can we **increase awareness** among stakeholders on the relevance of renewable energy deployment actions in national plans ?
- Can we **help integrate climate factors into national planning** and development processes through renewable energy ?
- Can we **strengthen links** between renewable energy, national development, and climate plans, and SDGs ?
- How do we **build capacity to analyze, develop, and implement** climate policies and plans using renewable energy investments ?
- Can we support the systematic inclusion of renewable energy deployment information and data systems to **improve M&E systems**
- How we **address resource constraints** in implementing climate change mitigation and/or adaptation actions

# Climate resilience should be taken into account when planning and implementing national climate action plans

- There is a need to attend different objectives at the same time:
  - ✓ Increase energy security
  - ✓ Strengthening vulnerable groups and communities
  - ✓ Mitigate GHG emissions
  - ✓ Adapt energy systems to reduce climate vulnerability
- Renewables may contribute to more than one adaptation, mitigation or sustainable development objective, while producing greater impact with fewer resources.

**Recognizing the interplay among different sectors can help harvest all potential benefits**



**Climate action implementation**

## Summing up key takeaways and urging immediate action

1

There is an urgent need for capacity building and targeted action on NDC 3.0 to catch up with global progress

2

Technical analysis and modelling is effective for crafting a robust NDC 3.0

3

Funding is a cornerstone for the implementation of NDC 3.0 and exploring the financial landscape is significantly important

4

While the mandate for NDC 3.0 is global, the challenges are profoundly local. Each country faces a unique set of challenges.

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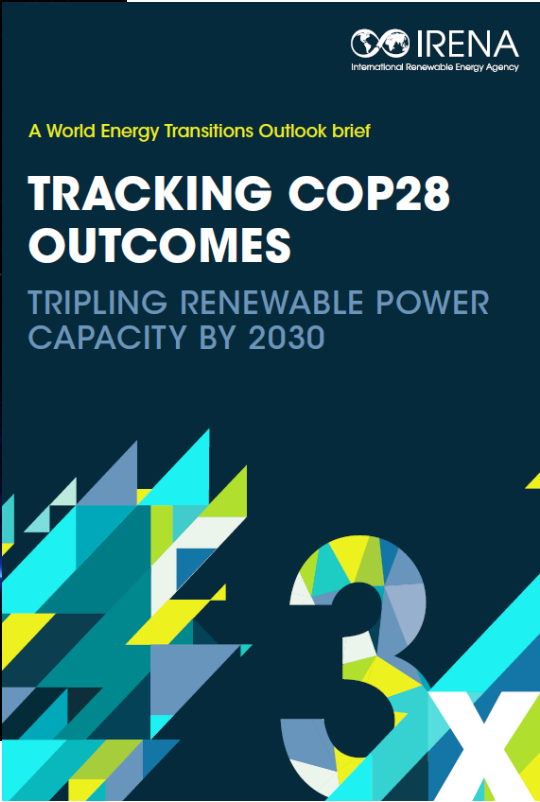
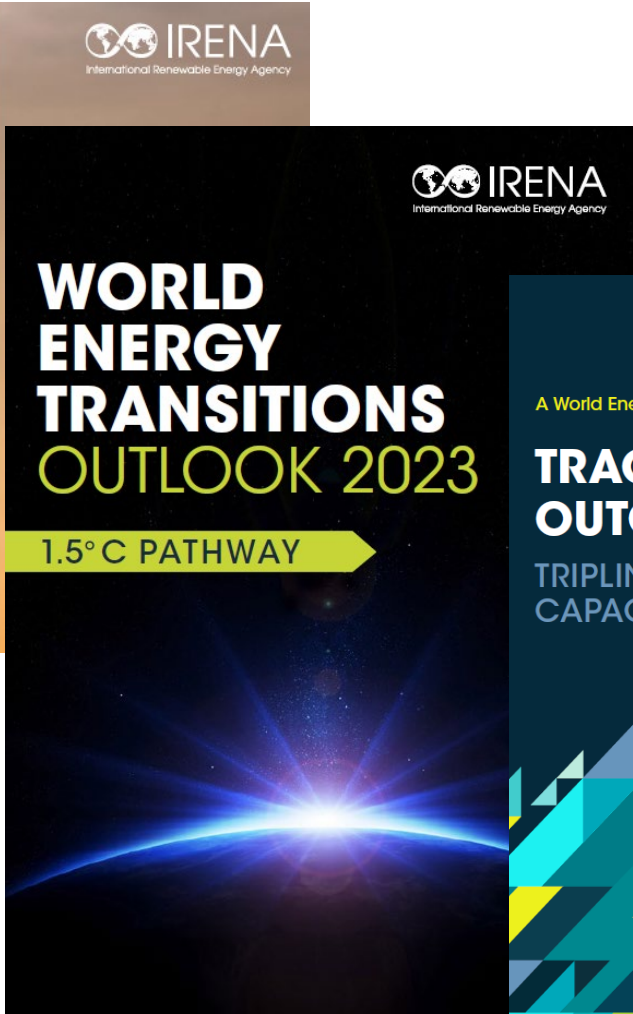
NDC 3.0 do not exist in vacuum, but they interrelated with other climate national plans and intersect with other socio-economic goals

6

NDC 3.0 follow a participatory and inclusive approach, where stakeholders' consultation is of huge essence

**An ambitious climate pledge that envisions carbon neutrality by 2050, combined with appropriate policy implementation, can be a powerful tool for attracting international investment.**

Thank you for your attention



**Presenter**



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