Input for the 2025 High-level Political Forum

International Renewable Energy Agency (IRENA)

Your assessment of the impacts of the multiple and interconnected crises on the implementation of SDGs 3, 5, 8, 14 and 17.

SDG5: IRENA finds that women account for about a third of the renewables sector workforce. Solar PV 's workforce consists of 40% women. Women are better represented in administrative positions with lower salaries and decision-making authority (58% in solar PV & 35% in wind). In the overall renewables sector, they account for 45%. Women, such as lawyers or HR professionals, hold 38% of non-STEM positions in solar PV. Women in STEM positions account for 32% and 35% of other non-technical positions. Gender inequality at decision-making levels is acute. Women in wind hold 13% of managerial jobs and 8% of senior management positions. But in solar PV, they have 30% of the management positions and 17% of senior management.

SDG8: IRENA finds that 16.2 million people worked in the renewables sector globally in 2023, up from 13.7 million in 2022. Solar PV employs 44% of the global renewables workforce. China dominates, followed by the EU. Biofuels employed 2.8 million people. Brazil had the largest number of jobs, followed by Indonesia. Hydropower had 2.3 million jobs. Wind power held 1.5 million jobs; China leads, and Europe follows. Under IRENA's 1.5°C Scenario, employment in renewables could reach 30 million in 2030. The shift to renewables can also result in an average annual GDP gain of 1.5% over business-as-usual.

SDG17: Energy transition-related investments surpassed $2 trillion for the first time in 2023. The majority flowed to China and advanced economies. Emerging markets and developing economies received 14%, with their share declining. Sub-Saharan Africa received less than 1% over the last two decades. Risk premiums are higher in most developing economies and have risen due to the pandemic, geopolitical events, and recent interest rate hikes, leading to a rising cost of financing for countries with high living costs, currency depreciations, and rising debt servicing payments. International public financing for renewables has also been on a downtrend since 2016.

Three key areas where sustainable, inclusive, science-and evidence-based solutions for achieving the SDGs and leaving no one behind are being effectively delivered, especially related to the cluster of SDGs under review in 2025, also bearing in mind the three dimensions of sustainable development and the interlinkages across the Goals and targets.

SDG5: Gender equality is about fundamental fairness and achieving socio-economic development. Women’s leadership and contributions will ensure that future energy systems address modern societies' needs and leave no one behind. Renewables strengthen the critical role of women in the energy transition as beneficiaries of energy access and through job creation. Women can become agents of socio-economic transformation, challenge cultural and social norms and help deconstruct

stereotyped gender roles. Restrictive laws, institutional barriers, and discriminatory cultural practices must be removed. Raising women's participation and visibility represents not only an opportunity for women but also allows the industry to tap into a much wider talent pool. This is important considering the existing skills shortages in some renewables industries, a gap that could widen as the energy transition gathers momentum.

SDG8: IRENA finds that 16.2 million people were employed in the renewable energy sector worldwide in 2023. Millions of additional jobs are expected in the future, but education and skills development must expand, workforce development programs must be set, and labour markets must respond to evolving needs. New and existing jobs must align with the quality and decent jobs agenda. Fundamental principles and rights must be upheld. Communities dependent on the fossil fuels industry need to be engaged in the new energy system through retraining and economic revitalisation strategies, wherever feasible. Women, youth, and typically discriminated groups should have equal access to training and career paths. This will enable the renewable energy industry to tap a much wider pool of human talent, help bridge potential future skill gaps and advance the achievement of multiple SDGs.

Three examples of measures to accelerate progress towards SDGs through well-coordinated actions in key transitions to bring progress to scale (food security, energy access and affordability, digital connectivity, education, jobs and social protection, climate change, biodiversity loss and pollution), building on interlinkages between SDGs to ensure cohesive progress.

1. Gender

- Giving women an equal voice will broaden perspectives in energy-related decisions and ensure a just sharing of socio-economic benefits.

-Governments, educational institutions, industry associations must adapt curricula and strengthen mentoring opportunities for women. -Adopt policies promoting work-life balance and equal professional development. Opportunities and programmes to unlock new livelihood opportunities.

- Challenging cultural and social norms.

2. Renewables & access/livelihoods/health

- Technological solutions already exist but market imperfections make them unaffordable. Innovative financing, innovative business models, awareness and education, and linking clean cooking to broader energy planning and programs are key solutions.

3. Jobs and education

- IRENA's Skills Pledge. The global energy transition can create millions of jobs, reinforcing the need for a skilled workforce to support the growing renewable energy sector. To meet this demand, education and training must be scaled up to address skill shortages, particularly in digital skills and manufacturing.IRENA is leading a pledge for governments, companies, associations, and

international organisations to commit concrete actions to advance renewable energy skills.

4. Financing/partnerships

- International public finance must provide capital, absorb risk, and mitigate risk. The international community must mobilise financing at affordable terms.
- ODA will be essential for financing energy transitions, especially in LDCs.
- Public funds should go to countries according to their needs and address remaining risks where solutions have already been deployed
- IRENA collaborates with key partners through the Sustainable Renewables Risk Mitigation Initiative (SRMI) to support governments in deploying risk mitigation instruments, unlocking renewable energy investments, ensuring alignment and reducing duplication of activities, and leveraging collective efforts to maximise impact.

Follow-up actions and measures being undertaken by your intergovernmental body or forum to support implementation of the 2023 SDG Summit Political Declaration and the outcomes of the 2024 Summit of the Future, to advance the implementation of the 2030 Agenda for Sustainable Development.

STI and Digital Cooperation: A sustainable energy system is only achievable by taking full advantage of the best innovations in energy products and services across the sectors that use them. IRENA closely monitors the development of energy technologies, develops a fuller understanding of the opportunities they offer, and works with partners to disseminate them widely.

-Digitalisation: IRENA guides countries on the use of digital technologies in energy systems and their impacts.

-Electrification: IRENA supports its Member in devising smart electrification strategies, by providing innovation toolboxes to create a tailored strategy aligned with national energy transition goals.

-Systemic innovation: IRENA has developed the most comprehensive innovation toolbox available for countries to implement solutions that increase the flexibility of their power systems

-IRENA has developed the interactive online data platform International Standards and Patents in Renewable Energy (INSPIRE) (a free-to-access web tool) offering information related to renewable energy technologies and developed to monitor innovation trends, front-runner countries and leading technology organisations via standards and patents data analytics

-IRENA also engages and works in close cooperation with experts on the development of a quality infrastructure and standards, organising and participating in workshops, conferences and seminars.

Youth and Future Generations: Through targeted initiatives, IRENA creates opportunities for youth to contribute to policy development, showcase innovative solutions, and lead the way in building a just

and inclusive energy future. The IRENA Youth Forum serves as a hub for young people of diverse backgrounds to exchange knowledge and best practices in energy transition actions.

Recommendations and key messages to be considered for inclusion in the Ministerial Declaration of the 2025 HLPF.

1. Recognition of SDG7 as an enabler of the SDGs agenda
2. Importance of holistic planning and policies
3. Commitment to realisation of the UAE consensus (tripling, doubling, phaseout)
4. Role of financing and international cooperation and inclusive approaches
5. Strengthening NDCs as Catalysts for Investment and Action