SDG ACTION

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

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2023

# Promise in peril

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# SDG ACTION

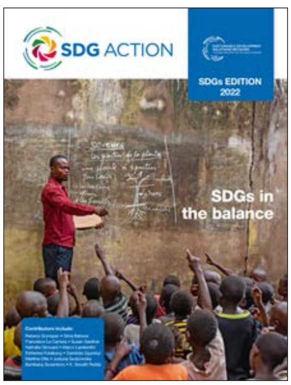
SDG Action was launched in 2021 by the UN Sustainable Development Solutions Network (SDSN) to support the UN's Decade of Action.

A resource for sustainability practitioners in all sectors, it brings timely analysis of the most pressing challenges. Its emphasis is on identifying opportunities and providing tangible ways to accelerate progress.

The website (www.sdg-action.org) features articles from world-leading experts on all aspects of the Sustainable Development Goals (SDGs) and climate action.

Two print editions are released annually, to coincide with major global diplomacy events. These editions provide a framework to understand the complex interdependencies between the SDGs, highlight priorities and dilemmas, and suggest ways to make the greatest impact, fast. The print editions are carbon-neutral and sustainably produced. The carbon emissions generated in manufacturing the paper, and printing and distributing the publications are offset. The paper used is PEFC certified from sustainable sources.

Please contact us at info@sdg-action.org if you would like to share feedback and ideas or would like to be involved.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# An international financial system at the service of sustainable development

**For the developed world, increasingly there appears to be only one existential crisis in town: climate change. Achieving the broader agenda of the Sustainable Development Goals (SDGs) demands deep reform of the international financial system and urgent recalibration of political will**

◀ A class being held in the newly-constructed Tshikungula Primary School, Democratic Republic of Congo. The school is one of over a hundred schools in the Kasai-Central and Eastern-Kasai provinces that have been rebuilt after the Kamwina Nsapu conflict. Failings in the global financial system are stifling the ability of low-income countries to invest in the SDGs

By Adriana E. Abdenur, co-Founder, Plataforma CIPÓ

Despite a promising start during the first few years of the 2030 Agenda, with significant gains in the fight against hunger, poverty and inequality, at its midpoint it has become clear that we are far from achieving it. A special edition of the SDG progress report shows that just 12% of the 169 targets are on track, while progress on 50% is insufficient.

These figures translate into serious reversals, especially for developing countries. The number of people living in extreme poverty is higher than four years ago. Income inequality is reaching new peaks, and hunger has returned to 2005 levels. At the current pace, it would take humanity another three centuries to achieve gender equality.

At the same time, despite calls to implement the Paris Agreement, greenhouse gas emissions continue rising and the world remains off track to achieve the objective of keeping global warming below 1.5ºC compared to pre-industrial levels. As economist Sakiko Fukuda-Parr has noted, not only are many people being left behind, they are being actively pushed even further behind.

UN leadership has recognized that this backsliding calls for immediate action. Secretary-General António Guterres recently stated that, "Unless we act now, the 2030 Agenda will become an epitaph of a world that might have been."

Acting now requires a clear diagnosis. What is driving the reversals in the 2030 Agenda? Multiple and intersecting crises, ranging from the COVID-19 pandemic to protracted armed conflicts, weakened global governance, and rising geopolitical tensions, are posing new obstacles to fulfilling the SDGs or exacerbating old ones.

## Competing crises

But there is also a major political problem: namely, the systematic de-emphasis, by developed countries, of the 2030 Agenda. This results from a combination of three factors. The first is a misguided competition among agendas, based on the false premise that SDGs constitute a task that is both separate from, and lesser than, other challenges.

*// Multiple and intersecting crises, ranging from the COVID-19 pandemic to protracted armed conflicts, weakened global governance, and rising geopolitical tensions, are posing new obstacles to fulfilling the SDGs or exacerbating old ones*

In global agenda-setting, sustainable development has long competed with peace and security for attention and resources, but now it also increasingly competes with climate. This separation between the SDGs and climate harkens back to an outdated reading of the relationship between development and the environment, a false dichotomy that was presumably overcome in the 1987 Brundtland Report and in Agenda 21. The third factor is an abandonment of the development challenge as an economic transformation that requires significant resource mobilization, active policy support, and sustained international cooperation.

The 2030 Agenda very much incorporates climate, not only through a specific objective (SDG 13) but also through its relevance to the other goals. Yet the agenda reaches beyond climate for good reason: not everything needed to accomplish it falls under the rubric of climate action or, correspondingly, climate finance. Other aspects of sustainable development need attention and financing to ensure that development gaps are closed and that basic needs, wellbeing, dignity, and rights are promoted and respected. The principle of Common But Differentiated Responsibility helps to ensure that such needs are addressed.

The loss of prominence of Agenda 2030 is also a direct consequence of the inadequate representation of developing countries in the main decision-making fora of global governance. This problem is not new, it dates to the post-World War II era, but it has never been more debilitating given the heightened interdependence of the global economy and the growing intensity of the polycrisis amidst deepening geopolitical rivalries.

Over time, global governance has become not less, but more permeable to global power competition. When Northern actors posit climate change to be the main, if not the only, existential problem facing humanity, they often call attention to the environmental dimension of the sustainable development agenda not in relationship to, but rather at the expense of, addressing the deepening social and economic challenges facing governments and households in the South.

Yet, as agreed upon at the Rio Earth Summit in 1992, the three dimensions of sustainable development are indivisible, interconnected, and mutually reinforcing. Kick away one leg of the tripod, and it will come crashing down. Only development that manages to balance these aspects can be sustained in the long term. And only by making progress across all the SDGs can developing countries acquire the adaptation and mitigation capacities needed to address climate change, or to implement the just transition.

## A failure of finance

Developed countries' narrow emphasis on climate – and, within it, mitigation more specifically – to the detriment of everything else is reflected most sharply in the financing agendas.

The lack of a clear definition of climate finance, even as the concept expands to occupy all available political and epistemic space in the financing arena, is creating numerous problems, including a "crowding out" of development finance. This is seen, for instance, in the double counting of resources as both climate and development financing.

In 2009, at COP15 in Copenhagen, countries agreed that climate financing should in fact be new and additional to development finance, not substituting it. In other words, the commitment by developed countries to make available 100 billion USD annually to support developing countries in addressing climate change should be supplementary to the commitment of developed countries, established in a resolution of the UN General Assembly in 1970, to allocate 0.7% of their gross national income to development aid initiatives. The unpaid bill from failing to meet this target already stands in the trillions of dollars.

Even as these commitments are broken, developed countries increasingly push developing ones, as well as the institutions created to help close the gap – especially multilateral banks – to channel efforts and resources to climate action, especially mitigation.

When the SDGs are mentioned, emphasis is placed only on reducing greenhouse gases, which reflects a narrow and unjust understanding of sustainability. While mitigation is essential, adaptation, loss and damage, and just transition are equally important. More broadly, so is the rest of the 2030 Agenda, including inequality, technological development, infrastructure, and gender policy.

The issue is not lack of resources. Military spending around the world is booming; it reached a record of USD $2,240 billion in 2022. Many global corporations are wealthier than many countries, and a few dozen individuals amass vast fortunes in the hundreds of billions of USD. The International Monetary Fund (IMF) is sitting atop a mountain of money through the recent issuance of Special Drawing Rights (SDR), but the resources are not reaching those who need them. "Unlocking" available resources is sometimes attributed to technical challenges, but it is primarily a matter of political decisions and moral conviction.

## The need for reform

These problems are part of a much broader challenge, which demands systemic reform. The international financial system has become both outdated and fragmented. It is failing across the board:

- to help developing countries to improve the lives of their citizens;
- to support the fight against "new challenges" such as climate change and the digital revolution; and
- to advance reforms to prevent future global financial crises.

Established institutions have all but given up on supporting structural transformation in developing countries that could lead to sustainable development and increase capacity to address mounting challenges. Instead of closing gaps, the system is actively widening them.

One symptom – although by no means the only one – is the growing debt crisis. The proportion of countries in debt distress, or at high risk for it, has doubled to 60% from 2015 levels. As a result, most low-income countries (but also, increasingly, some middle-income ones), are unable to invest in SDGs altogether. Moreover, the bailout conditionalities imposed by the IMF further undermine their capacity to work towards the SDGs. Restructuring some of this debt may help solve immediate problems, but the bigger question is how can we prevent this from occurring in the first place?

A related issue is the staggering lack of transparency in the international financial system. This opaqueness is not by chance, but rather by design. Who benefits from the absence of clear, comprehensive maps of the system, showing us clearly what pots of resources exist, where the money comes from, where it goes and under what conditions it can be accessed?

In the absence of such clarity, two things happen. First, those who rig the system continue to reap its benefits. Second, solutions remain piecemeal, with major meetings yielding only loose laundry lists of proposals that tinker with parts. Other proposed responses aim at low-hanging fruit, leaving out the vast majority of the world's poor and vulnerable, and without addressing the root causes.

Ultimately, serious talk of reform must also address the relationship between state and market. Solutions put forth have also come to rely excessively on the logic of the market whether through talk of "derisking" or blended finance. Both Official Development Assistance commitments and the role of the state in guiding long-term, sustainable development fade into the background. Even as developed countries openly announce a new wave of industrial policy domestically, they double down on protectionism and conditionalities that restrict policy space in the developing world.

The system is lopsided and full of holes, and the center cannot hold. An international financial system at the service of sustainable development requires tackling core issues: lack of transparency, inadequate representation, and geopolitical interference. Only a balanced and just view of sustainable development and a clear-eyed approach to reform will help us solve the mounting challenges, and to prevent future crises. ■


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# The SDGs are the means and the ends

**At the halfway point of Agenda 2030, the SDGs are dangerously off course. Current world crises are both evidence of the lamentable lack of progress, and confirmation that the world needs the goals now more than ever**

By Hugh Robinson, Publisher, SDG Action

"The SDGs are in deep trouble." The latest SDG progress report, presented to the High-level Political Forum (HLPF), gives a grim assessment. However, the prevailing message – forcefully put – is that the Sustainable Development Goals must and can be achieved.

The COVID-19 pandemic has had a devastating and continued impact on the SDGs. State-based armed conflict, which is at its highest levels since 1945, has compounded the situation. By the end of 2022, there were over 108 million forcibly displaced people worldwide. The Russian invasion of Ukraine led to global economic disruption, creating spikes in energy and food costs.

▲ An Oasis centre in the Za'atari Refugee Camp in Jordan. The centres, run by UN Women, provide emergency aid and specialized gender-based violence services for women and girls, who have fled the civil war in Syria

On the face of it, this series of crises might appear to excuse or at least explain the lack of progress toward the SDGs. In reality, it is evidence of our global failure: all these crises were of our own making, were predictable, and – had we fully embraced the SDGs – avoidable. We had plenty of warning of the threat of pandemics through experience of Ebola, SARS, Zika and swine flu but most countries and the global community as a whole failed to develop robust strategies.

Most of today's conflicts are based on claims of national or ethnic security but are driven by small cliques seeking power and profit. There are more external actors intent on enflaming the conflicts than defusing them. The global community is still incapable of developing fair and effective forums to avoid or resolve conflicts. In 2022 there were almost a quarter of a million deaths from armed conflict, most suffered in Ukraine and Ethiopia. The civil war in Syria is in its 13th year and Yemen is in its 9th.

All countries are exposed to these failures in global governance. However, countries that have made the most progress on the SDGs have typically been the best prepared and have suffered least damage while navigating these crises. The countries leading the Sustainable Development Solutions Network's (SDSN's) SDG Index at the start of the pandemic were largely the most successful at minimizing excess mortality during the pandemic and are showing the strongest post-COVID economic recovery.

The fallout from the pandemic also obscures the fact that the world made weak progress in the first five years of Agenda 2030 and was not on track to meet the goals. The SDGs required a new philosophy and a holistic approach that was largely lacking in existing governance. For them to succeed, the SDG blueprint needed to be embedded into politics, the legal system, education, economic governance, and the functioning of the private sector – both at a country level and internationally.

The SDGs were seen as a virtuous endeavor, and politicians and corporate leaders were quick to claim support. However, most of these claims were merely dressing up business as usual, which was always going to be inadequate for the task. As the SDG progress report says, "we cannot simply continue with more of the same and expect a different result."

> ***Game-playing, posturing and deal-making dominate international relations. Leaders assume that their publics want them to win points in a zero-sum game***

## Mutual support

One of the great beauties of Agenda 2030 is the way it recognizes the interrelationships between the SDGs and how they provide mutual support. When the goals are properly integrated, focus can be given to individual SDGs and they should slot together like LEGO®. The flip side is that the mass of goals and targets can feel impenetrable to a newcomer, presenting a barrier to engagement.

The SDG Progress report gives a nod to this and calls for a narrower focus, one that is founded on the ideal of "leave no one behind." It calls on governments to prioritize:

- eradicating poverty (SDG 1)
- reducing inequality (SDG 10)
- ending the war on nature (SDGs 13, 14, and 15)
- advancing the rights of women and girls (SDG 5)

To achieve this, it urges countries to make the SDGs the focus for all levels of government, from local to national, and to ensure that each level is properly equipped in terms of capacity and institutions.

It acknowledges that the international governance architecture was not up to job: it asks for support in strengthening the UN development system and it is scathing about the global financial system. In its words, "we cannot persist with a morally bankrupt financial system and expect developing countries to meet targets that developed countries met with far fewer constraints." It challenges Member States to deliver an SDG stimulus of USD 500 billion a year until 2030 to redress the imbalances in the financial system, and channel financial flows to the SDGs.

Politicians and the public have short attention spans – reforms to deliver the SDGs need to be held in the spotlight. Over the next two years, the UN system is geared up to do just that. This September, to mark the midpoint in the SDGs, New York hosts the SDG Summit. At this HLPF, Guterres is tasking world leaders to prepare for the summit so they can deliver a "Rescue Plan for People and Planet" based on:

- equipping governance and institutions for sustainable and inclusive transformation
- prioritizing policies and investments that have multiplier effects across goals
- securing a surge in SDG financing and an enabling environment for developing countries

In 2024, the headline UN event will be the Summit of the Future (SOTF), which was spawned by the UN'S 75th anniversary commemorations and its concluding report Our Common Agenda. Most of that report focuses on SDG acceleration and transformation, and SOTF should keep the SDGs in the forefront of political programs.

SDG Action was established by SDSN to provide the knowledge to shape these transformations. In this edition, we have insightful articles on the core themes identified, as well as on the spotlight SDGs of this year's HLPF: SDGs 6, 7, 9, 11, and 17.

On the central theme of reforming the global financial architecture, Shari Spiegel (p.15) gives a thorough analysis of the flaws and sets out the reforms needed; Adriana Abdenur in her foreword to the publication (p.6) gives a clear picture of the political and governance failings.

In line with the SDG progress report, we explore areas of investment that will bring multiplier effects, including realizing the benefits of digital. Doreen Bogdan-Martin (p.12) identifies how digital technologies can accelerate all SDGs; Ciyong Zou, Marco Kamiya and Alla Metelitsa look at how technology transfer can boost LDCs (p.43); Sima Bahous (p.24) considers the role of digital in advancing gender equality.

As with most aspects of Agenda 2030, the ends provide the means. SDG 5 – gender equality – is a goal in itself but also a multiplier that will help achieve the other goals: Jess MacArthur (p. 30) looks at the intersection between sanitation (SDG 6) and gender; and Elizabeth Cecelski and Sheila Oparaocha (p.36) how the lack of access to clean energy (SDG 7) impacts women and girls.

## Inequalities increasing

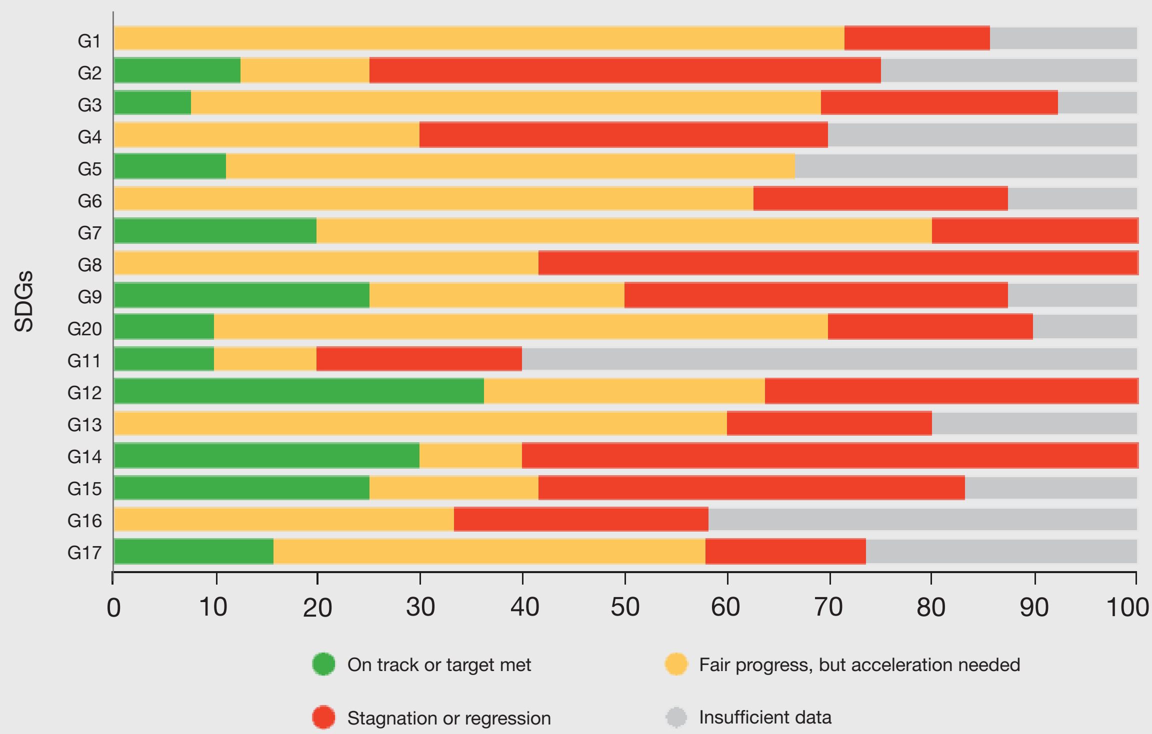
The most troubling feature of recent SDG regression is that inequalities have increased dramatically. The poorest countries have fallen furthest and the most vulnerable in society hit hardest. The essence of Agenda 2030 - leave no one behind - is in jeopardy. As the SDG progress report puts it, the "promise is in peril". All articles in this edition focus on rescuing that promise.

You would be hard put to find a political leader who will present an informed case denying the merits of the SDGs.

However, most will readily claim that current "unique" circumstances justify deferring structural changes and choosing options that conflict with the SDGs for perceived short-term benefits. These are, invariably, falsely framed choices – there will be a right decision that is consistent with the SDGs.

Game-playing, posturing and deal-making dominate international relations. Leaders assume that their publics want them to win points in a zero-sum game. It is time to recognize that, as we push against multiple planetary boundaries, we are in this together, and ethics and the SDGs must determine how we engage with each other. ■

**FIGURE 1:** Progress assessment for the 17 Goals based on assessed targets, 2023 or latest data (percentage)




*Source: Sustainable Development Goals Report 2023*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# Harnessing digital to rescue the SDGs

**In this digital age, over two billion people worldwide still lack internet access. With progress on the SDGs way off course, we must ramp up access to, and application of, digital technologies – including AI – to get Agenda 2030 back on track**

By Doreen Bogdan-Martin, Secretary-General, International Telecommunication Union (ITU)

With only 15% of Sustainable Development Goal (SDG) targets on track and 30% of the Goals having stalled or gone into reverse, the SDGs are in jeopardy.

We now risk hurtling toward a future marked by intractable inequalities, cascading crises, and planetary breakdown.

Add to this the fact that we are witnessing tectonic shifts in technology driven by artificial intelligence (AI), and humanity's very existence seems to be on the line.

To my mind, the choice is clear. If we want to have the chance to get the SDGs back on track in the little time we have left, we must double down on digital technologies. We cannot afford to leave anyone behind, including the 2.7 billion people who have never used the internet.

## 17 September is SDG Digital Day

That is why, together with the United Nations Development Programme (UNDP) and our knowledge partner BCG, ITU is organizing SDG Digital Day on 17 September 2023 – to put data and digital technologies at the core of SDG rescue efforts.

We know from the latest SDG report that without accurate data, even the most well-intentioned programs and initiatives are working in the dark.

Statistical information powered by digital infrastructure offers the floodlight we need to pinpoint gaps and get the full picture of our progress and pitfalls on all 17 SDGs.

SDG Digital Day will take place in New York on the eve of the 2023 SDG Summit – the High-level Political Forum on Sustainable Development under the auspices of the UN General Assembly.

It is the ideal moment to showcase scalable use cases of how digital technologies can advance each SDG. Participants will come away inspired by country-level success stories, from satellite-powered climate monitoring to life-changing mobile money applications to ground-breaking school connectivity solutions.

It will also offer SDG stakeholders a unique chance to consolidate financing and create bold new partnerships through the ITU-led Partner2Connect Digital Coalition, which has so far mobilized USD 30 billion toward meaningful connectivity projects in hard-to-reach communities all over the world.

◀ Children using tablets in Yaoundé, Cameroon. Giga, an ITU-UNICEF initiative, will connect every school to the internet and be instrumental in reducing digital inequalities

But this is just a fraction of what is needed to make connectivity universal, with an ITU study and IMF estimates putting the digital infrastructure investment needs at around USD 400 billion at least.

That is why we have raised our Partner2Connect ambitions to mobilize pledges valued at USD 100 billion for meaningful connectivity and sustainable digital transformation by 2026.

Because how can we expect people to leverage technology for healthcare, innovation, education, or employment if they cannot afford a digital device or service, lack the required digital skills, do not find the content useful, or do not feel safe online?

## Pooling resources

The challenges before us are too big and expensive for any one stakeholder to tackle alone.

The Joint SDG Fund is one of the best tools in our toolbox when it comes to delivering the 2030 Agenda. This interagency mechanism for integrated policy support and strategic financing works with 31 UN entities in 119 country teams and multi-country offices.

Led by UN Resident Coordinators, the fund aims to leverage each UN agency's expertise and to enhance joint programs to deliver on the SDGs more efficiently and effectively.

ITU has already lent its technical expertise in standardization, radiocommunication, and digital development to several joint programs aimed at accelerating digital inclusion, tech innovation, and economic resilience.

Through the Joint SDG Fund, for example, ITU and the UNDP Multi-Partner Trust Fund Office signed agreements to strengthen community resilience in Micronesia and promote economic diversification and digital transformation in South Pacific small island developing states.

ITU and UNDP will also lead the new Digital Transformation Window of the Joint SDG Fund, which has enormous potential to integrate programmatic work on digital at the country level.

Among our most urgent tasks is breaking down silos to apply digital advances in education, health, agriculture, the environment, trade, and other areas of the SDGs as one United Nations. This holistic, integrated, multi-stakeholder approach to sustainable digital transformation draws on the strength that each of us brings to the table.

> ***How can we expect people to leverage technology for healthcare, innovation, education, or employment if they cannot afford a digital device or service, lack the required digital skills, do not find the content useful, or do not feel safe online?***

## All hands on deck

As the UN agency for digital technologies, ITU provides a trusted, well-established, global platform for all stakeholders to deliver on the SDGs.

On 6 and 7 July 2023, ITU convened the AI for Good Global Summit, where leading voices from government, industry, academia, civil society, and the UN came to Geneva to explore how to harness AI as a force for good in service of the SDGs.

In light of the increasing warnings about AI risks, they also addressed the guardrails and potential global governance frameworks needed for a safe and responsible AI.

The summit was a physical manifestation of the entire AI for Good platform that has been led by ITU in partnership with 40 UN organizations since 2017.The sole UN entity with private sector membership, ITU is also at the forefront of global technical standard-setting that supports AI and other emerging technologies.

When it comes to conversations on how AI will shape our shared digital future, everyone has the right to participate with an equal voice. ITU's focus groups – open to all – have led pre-standardization work in support of AI's contribution to health, environmental sustainability, autonomous and assisted driving, and natural disaster management, and other areas.

Together with UNESCO, ITU also co-chairs the UN High-level Committee on Programmes' Inter-agency Working Group on AI, aimed at advancing policy and streamlining AI activities across the UN system.

Technology will not wait. We need to shape AI faster than it is shaping us, in a world where AI represents one of our best hopes to rescue the SDGs.

## Moving fast on quick wins

Digital is the game-changer that can make the 2030 Agenda real in the lives of people everywhere. Addressing digital inequalities is a quick win for all 17 SDGs. Doing it now could unleash unprecedented opportunities for:

- children and youth, through Giga, an ITU–UNICEF initiative to connect every school to the internet
- women and girls, through our EQUALS initiative with UN Women
- global health, through the ITU–WHO AI for Health focus group
- economic development, through digital financial inclusion
- climate action, through our work with the World Meteorological Organization on early warning systems for all by 2027

I am calling on every stakeholder to get on board with digital to rescue the SDGs in this decade. Let us roll up our sleeves and deliver the 2030 Agenda with digital before it is too late. ■

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# Fixing the financial system

**In the words of the UN Secretary-General, developing countries have limited access to the financial resources they need to address the dramatic challenges they face and implement the SDGs. The global financial architecture, created for a very different world eight decades ago, needs urgent reform to make it fit for purpose**

By Shari Spiegel, Director, Financing for Sustainable Development Office, UN-DESA, United Nations

The recent confluence of global shocks has battered developing countries. While advanced economies injected trillions into their economies, most developing countries, constrained by limited fiscal space and high borrowing costs, were unable to invest in recovery, climate action, and sustainable development. As always, it is the poorest and most vulnerable who are most affected. The statistics are sobering:

▲ The UN Secretary-General and the Prime Minister of Pakistan visit the provinces of Sindh and Balochistan in the wake of flooding. At the subsequent conference on climate resilience in Pakistan, the UNSG described the global financial system as "morally bankrupt"

- At current trends, 574 million people – nearly 7% of the world's population – will still be living in extreme poverty in 2030.
- 345 million people now face acute food insecurity.
- By the end of 2022, nearly 60% of all low-income countries were at high risk of, or in, debt distress.

As highlighted in the Financing for Sustainable Development Report (FSDR) 2023, the "great finance divide" risks becoming a lasting sustainable development divergence, increasing the risk of further geo-economic fragmentation.

**// *Designed in 1945, the international financial architecture has been unable to support mobilization of stable and long-term financing at scale for investments needed to combat the climate crisis and achieve the Sustainable Development Goals***

As an international community, we have not found an adequate response to this divide, in part because our institutions are out of date. Designed in 1945, the international financial architecture has been unable to support mobilization of stable and long-term financing at scale for investments needed to combat the climate crisis and achieve the Sustainable Development Goals (SDGs) for the eight billion people in the world today.

While the system has evolved over time, it has become increasingly at odds with the needs of a world characterized by climate change and increasing systemic risks, extreme inequality, highly integrated financial markets, and profound technological and geopolitical change.

The gaps and inequities in the system are manifested in myriad ways. Developing countries face high borrowing costs in financial markets relative to risk, as measured by market volatility, even after adjusting for historical defaults. This means, for example, that an investment in clean energy, which might be competitive in a developed country, can be prohibitively expensive in many developing countries. There are also enormous differences in access to liquidity in times of crisis.

For example, G7 countries, with a population of 772 million people, received USD 280 billion in the historic 2021 allocation of International Monetary Fund (IMF) special drawing rights (SDRs), while the African continent, with 1.3 billion people, received only USD 34 billion. In addition, there is dramatic underinvestment in global public goods, including pandemic preparedness and climate action, alongside repeated global financial crises.

But the recent crises have also led to momentum for reform. The FSDR 2023 found that the international financial architecture is currently in flux, as countries seek to remake international organizations, norms, and frameworks. Discussions are ongoing in informal country groupings, such as the Group of 20 (G20), the Group of Seven (G7), and the Bridgetown Initiative, and most recently at the Paris Summit for a New Global Financing Pact. The issues are also on the agendas of the World Bank and IMF boards, as well as at the UN and other forums.

### Reforming global finance

In May 2023, the UN Secretary-General published a policy brief on reform of the international financial architecture, laying out concrete recommendations.

First, global economic governance (for example, increasing the voice of developing countries in IMF and World Bank governance) must be at the heart of reforms to build trust, inclusion, and equity in the multilateral system. The policy brief calls for updating the system to reflect the changing world, and for exploring creative ways to increase the voice of countries and to separate the ability to pay from access to finance and decision-making.

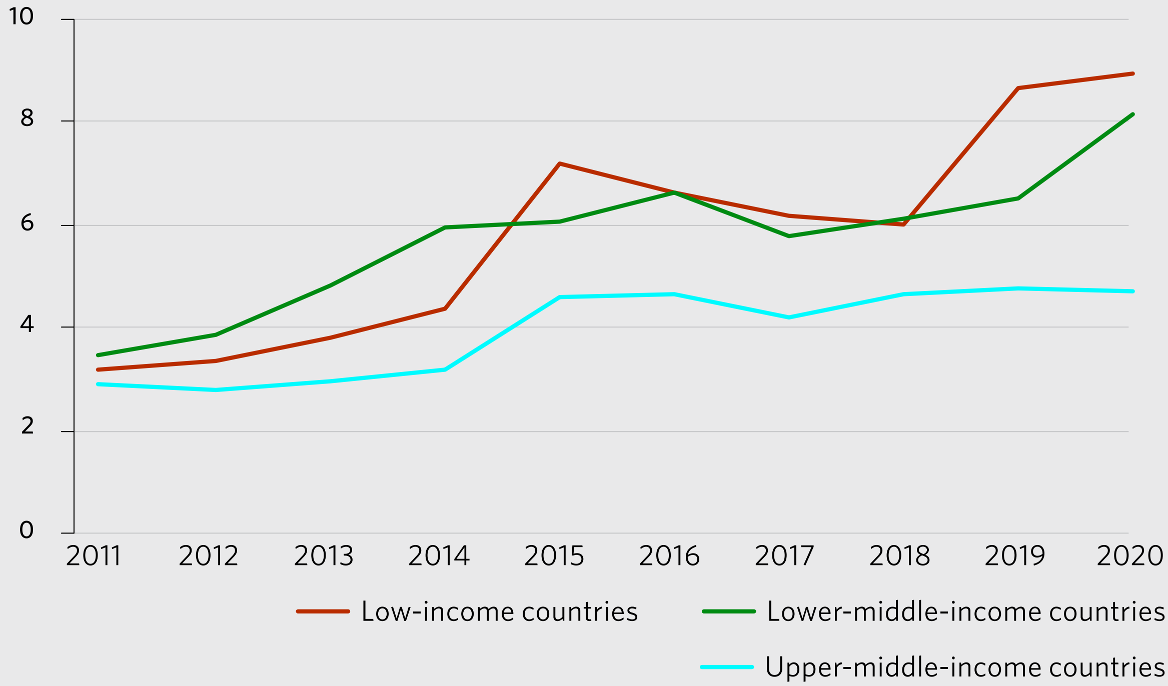
Second, it is time to address longstanding gaps in the sovereign debt architecture. Debt markets need to work better, including having:

- more transparency
- better credit assessment
- stepped up support to countries to strengthen debt management capacity
- improved debt contracts (for example, including climate-resilient debt clauses)

When needed, debt restructurings are too little and too late, resulting in protracted crises and high social costs. Implementation of the G20 Common Framework for Debt Treatment has been extremely slow, undermining confidence and limiting take-up. The Secretary-General's policy brief puts forward an innovative two-step solution to address sovereign debt distress, starting with a debt workout mechanism. This mechanism could support creditor coordination and comparable treatment of official and commercial creditors in the G20's common framework by tasking debt treatment to an expert body.

Third, development finance needs to be massively scaled up. Today, the multilateral development bank (MDB) system is a fraction of its historical size (less than one-fifth of the 1960 funding level relative to GDP), despite investment needs that are orders of magnitude higher. MDBs are taking action. The World Bank is developing an evolution roadmap to adjust its mission and operational and financial

**FIGURE 1:**
Debt service to export ratio by income group, 2011-2020 (percentage)




*Source: Sustainable Development Goals Report 2022*

model. The recently published MDB Vision Statement at the Paris summit calls for improving how developing countries work together as a system, among other issues.

The African Development Bank is developing a proposal to re-channel IMF SDRs through MDBs, which could then be leveraged three to five times. But increases in capital will be needed if the MDBs are going to address global challenges while still ensuring affordable, long-term financing for country needs.

Fourth, access to the global financial safety net is uneven. While the 2021 SDR issuance was historic, the current allocation of SDRs is inefficient in fighting crises. Developed countries have pledged to re-channel USD 100 billion in SDRs to countries in need, but only half of that amount has been delivered. SDR issuance needs to be more automatic in a countercyclical manner or in response to shocks, with allocations based on country need and vulnerabilities.

Creative solutions, such as ex-ante (before the event) agreement on rechanneling SDRs, should be explored. Strengthening macroeconomic coordination is also needed to reduce volatility and prevent crises.

Fifth, there is also a need to reset the rules for the financial system to promote stability with sustainability, including to:

- address short-termism and excessive leverage
- create sustainability norms for private investment and business
- reduce greenwashing

For example, financial standard setters could have clear SDG and climate transition plans incorporated into their mandates.

## Brokering consensus

As the custodian of the SDGs and the convenor of climate negotiations, the United Nations has an important role to play in ensuring that reforms to the international financial architecture support implementation of the SDGs and climate agreements. Such reforms will affect all countries and people, and all aspects of the SDGs. While final implementation of reforms can happen elsewhere, the UN brings together voices from all countries on an equal footing, along with other stakeholders. A fourth international conference on financing for development, scheduled for 2025, will provide an opportunity to reach consensus on a package of reforms that can make the architecture fit for purpose for the 21st century. ■

# Shaping the future world of work

**As the pace of societal change accelerates, many jobs considered essential today will become obsolete tomorrow. Creating resilience and adaptability, particularly among the world's most vulnerable workers, is essential and requires a global, whole-of-society policy effort and investment**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By Mia Seppo, Assistant Director-General, Jobs and Social Protection Cluster, International Labour Organization (ILO)

The world of work is undergoing profound changes. Self-driving passenger cars, medicine-delivering drones, generative artificial intelligence that augments human creativity in journalism, overheating megacities with more elderly people than newborns – these descriptions were once the stuff of science fiction. Today, they are manifestations of the technological, demographic, and climate-change-related forces that impact the way we work.

The 11th ILO Monitor on the world of work paints a worrying picture of the consequences of this "polycrisis" and its disproportionate effect on developing countries. While global unemployment in 2023 is expected to fall below pre-pandemic levels – to 191 million or 5.3% – estimates show that low-income countries remain far behind.

The COVID-19 crisis and uneven recovery processes took place alongside already diverging trends with regards to labor market outcomes between developing and developed economies and between vulnerable and non-vulnerable groups within countries. Among the most vulnerable and impoverished workers globally are:

- the 200 million classified as living in absolute poverty, or working poor
- the two billion in the informal economy, lacking legal rights and access to social protection

The "jobs gap," a new labor market indicator that aims to reflect the real scale of employment challenges, is projected to be 453 million people, or 11.7%, in 2023. This indicator includes all people who would like to work but do not have a job.

The jobs gap is much higher among women (14.5%) than men (9.8%). Low-income countries face the largest jobs gap rate at 21.5%, while the rate is 11% in middle-income countries and 8.2% in high-income countries. The situation is the toughest for low-income countries in debt distress, which face a jobs gap of 25.7%.

Sustainable Development Goal (SDG) 8 calls for inclusive and sustainable economic growth, and full and productive employment for all. Without concerted action, the goal is unlikely to be achieved, which will have ripple effects on other SDGs.

◄ An employee at a garment factory in Bangladesh gives a victory wave to colleagues to celebrate her election to the factory's participation committee. In factories without unions, these committees are the interface between workers and management, and a forum to raise issues on conditions, wages, and safety

> *Effective employment policies must be comprehensive and linked to labor market data and skills frameworks. This avoids the risk of training people for jobs that do not exist and creating jobs for which there are no skilled people*

The ILO, based on conventions and standards agreed upon through its tripartite governance structure, lessons learned from around the world, and cutting-edge analysis, can help countries navigate difficult transformations. Let's take a closer look at the need for policy coherence, international solidarity, and social dialogue.

## Comprehensive policy frameworks

Only through the coordinated design and implementation of all frameworks with a potential impact on creating employment opportunities can the goal of decent work for all be achieved.

Such a coherent approach, bringing together macroeconomic, sectoral, skills, and social policy frameworks (detailed in the ILO's resolution and conclusions to the third recurrent discussion on employment in 2022), provides the basis for job creation that recognizes that vulnerable groups need to be specifically targeted to have access to decent jobs.

Effective employment policies must be comprehensive and linked to labor market data and skills frameworks. This avoids the risk of training people for jobs that do not exist and creating jobs for which there are no skilled people.

To mitigate the risk of skills mismatches, the ILO's skills strategy for 2022–30 has the overall goal of enabling the development of systems and policies through social dialogue. These policies would provide inclusive access to high-quality skills development, quality apprenticeships, and lifelong learning opportunities to keep people employable. Specifically, the ILO is focusing on addressing skills for green and digital transformations and in the care economy.

## International solidarity

In a globalized economy, developing countries cannot be expected to act alone. To address pressing unemployment, they need adequate financial resources, including concessional, long-term financing, as well as technical support for policy implementation.

One area where international solidarity is critical is in building universal social protection systems. The right to social security is set out in the Universal Declaration of Human Rights and in other international instruments such as the ILO's flagship Social Security (Minimum Standards) Convention 102, adopted in 1952.

In total, 31 conventions describe concrete obligations and guidelines for states to implement the right to social security, and guide related ILO policy and technical advice. Convention 102 has been ratified by 65 countries, the most recent being El Salvador and Comoros in 2022, and Côte d'Ivoire and Iraq in 2023.

Research shows that social protection is an investment with robust social and economic returns. The 11th ILO Monitor on the world of work provides an estimate: implementing basic old-age pensions alone has the potential to increase GDP per capita by an impressive 14.8% within 10 years for low and lower-middle-income countries.

It would also contribute to a 6% reduction in the population living below the USD 2.15 purchasing power parity poverty line and a 2.5% increase in the income share of the bottom 40% of the income distribution.

The induced effects of basic pensions would also reduce the gender gap in labor income by 3.6%, equivalent to the global progress registered in the last 15 years. And the cost? In sub-Saharan Africa, for example, where coverage gaps are the widest, it would be USD 23.3 billion, approximately 12.5% of global annual official development assistance. This is a relatively low cost considering the enormous potential social and economic gains.

Universal social protection plays a key role in preventing poverty, reducing vulnerability and inequalities, and managing social tensions and conflicts, as well as building cohesive societies that are less prone to conflict. It is thus critical, especially in fragile contexts, to make sure that humanitarian assistance contributes to building social protection systems and reinforcing state capacity.

In Timor-Leste, one of the 50 target countries of the ILO's Global Flagship Programme on building social protection floors for all (phase 2), the introduction of a pension for older people and those with disabilities, together with other social provisions, was key in preventing further social unrest after a violent political crisis in 2006.

### A whole-of-society approach based on enforced social dialogue

Equally important as data-driven policy is social dialogue, to assure that policies are squarely addressing people's real needs instead of their needs as assumed by policymakers. Social dialogue should continuously inform policy at the country, regional, and global levels.

Adding to the challenge of policy coherence and solidarity between and within countries is that labor policy must be crafted in relation to multiple, interconnected drivers of change. Climate change can trigger the creation of green jobs, even while the transition to a green economy means that other jobs will become obsolete. The ILO estimates that by 2030 this tradeoff will result in the net creation of 25 million jobs.

Demographic transitions toward older populations provide opportunities for jobs in the care economy. On the other hand, in countries with a growing youth labor force, the opportunity of a demographic dividend needs to be realized by providing young people with the skills needed in the labor market.

Globalization must be reorganized to ensure that all people along supply chains profit from increasing trade. We are (rightly) worried that automation might destroy jobs, but technological progress also has the potential to create jobs in new markets. At the International Labour Conference this year, constituents agreed on a resolution concerning a just transition towards environmentally sustainable economies and societies for all. This is a key document to help guide the transitions in the world of work.

The UN Secretary-General's Global Accelerator on Jobs and Social Protection for Just Transitions builds on lessons learned and aims to put countries on a path toward resilience and higher levels of productivity and well-being, while protecting those not profiting from the transitions. The accelerator is embedded in the Global Coalition for Social Justice forged by the ILO and is based on a solid human rights foundation, including a strong reference to international labor standards.

> ***Globalization must be reorganized to ensure that all people along supply chains profit from increasing trade. We are (rightly) worried that automation might destroy jobs, but technological progress also has the potential to create jobs in new markets***

The accelerator will help to channel national, international, public, and private investments into job creation, including in the green, digital, and care economies, and the systematic promotion of social dialogue and participation.

It is expected that the first round of pathfinder countries under the accelerator will have national roadmaps ready in time for the SDG Summit in September 2023.

The world of work will look different for the next generation. If we meet our responsibility and strive toward a human-centered future, employment will be not just different, but more equitable, dignified, productive, and humane. ■

# Repression of women is blocking the SDGs

## The "shadow pandemic" of violence against women and girls shows little sign of abating. Tackling this global scourge calls for far more effective joining up of individual measures, embedding gender equality throughout all 17 SDGs

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▲ Girls in Paktika Province, Afghanistan, living in temporary accommodation after a severe earthquake. Since the Taliban took control of Afghanistan in 2021, girls have been excluded from education above grade 6, and women are now banned from working for NGOs and aid agencies

By Reem Alsalem, United Nations Special Rapporteur on violence against women and girls, its causes and consequences

Anyone familiar with the 2030 Sustainable Development Agenda will realize how central gender equality is to achieving its goals. As paragraph 20 of the agenda states: "The achievement of full human potential and of sustainable development is not possible if one half of humanity continues to be denied its full human rights and opportunities."

It is not a coincidence that the Sustainable Development Goals (SDGs) repeatedly refer to the need to achieve gender equality and the empowerment of women in the same sentence, as inequality based on gender predominantly affects women. One of the main ways in which this equality can be achieved is by supporting women to realize their full potential.

In its General Recommendation 19, the Committee on the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) acknowledged that "the effect of such violence […] is to deprive them the equal enjoyment, exercise and knowledge of human rights and fundamental freedoms."

There is an explicit understanding that only when women can fully represent their needs and advocate for their rights, as well as participate fully and equally in decision-making and have the resources to do so, can we begin to meaningfully tackle gender inequality.

***Women leaders and representatives, be they women politicians or heads of women organizations, continue to be vilified, body shamed, and attacked, using misogynistic and sexist language, and have their integrity, intelligence, and values questioned***

Unfortunately, looking at the bigger picture, we cannot ignore the fact that we are only a few years away from 2030, yet very far from achieving gender equality. Women and girls continue to be threatened, attacked, shamed, and subjected to violence for articulating and demanding their needs, including the right to be free from violence based on their gender or sex.

Women leaders and representatives, be they women politicians or heads of women organizations, continue to be vilified, body shamed, and attacked, using misogynistic and sexist language, and have their integrity, intelligence, and values questioned. These are all ways of dissuading women from participating in public and political life.

## Silencing women

Such incidents are not limited to any particular region, political system, level of economic prosperity, or culture. In fact, we are witnessing a worrisome proliferation of violence against women across the world with the intention to silence women, to prevent them from expressing their views, and robbing them of their right to assemble and express themselves freely. Some of the reasons why women come under these attacks are not new, such as women:

- uncovering corruption or human rights violations, including against their communities or children
- highlighting attacks on the environment and mother Earth and their exploitation
- behaving in ways that are contrary to established social and religious norms
- demanding accountability for acts of violence against them in the public or private sphere
- calling out their exclusion and marginalization from peace processes and governance

However, some of the reasons why women are being attacked relate to rights that the international community thought had seen significant progress in the last decades, and have rather been taken for granted. These include the rights of women and girls to seek and receive education and to access sexual and reproductive health. But the Taliban banning women and girls from education above grade 6 in Afghanistan, the gas attacks on girls attending school in Iran, and the severe restriction of the right to abortion in several countries all demonstrate the fact that fundamental rights that women and girls may have enjoyed can be lost – almost overnight – again.

Moreover, even an activity as simple as commemorating the international day for ending violence against women on 25 November each year is no longer a straightforward and non-controversial issue. Over the last two years, we have seen governments and non-state actors crack down on efforts by women and feminist groups to commemorate this important day, under the pretext of upholding law and order (on the basis that women did not have the right permissions and that banning commemoration is for their own protection).

More recently, women have been increasingly attacked for articulating the defense of their rights to equality and freedom from discrimination based on their sex. This includes the specific needs they may have that emanate from this characteristic, such as the right to single-sex spaces where it would be necessary and proportionate to achieve a legitimate aim – such as ensuring fairness, non-discrimination, and the protection of the overwhelming majority of women and girls against violence based on their female sex. It also encompasses the right for women and girls born female to be attracted to members of their own sex.

Key, binding international treaties, including the UN International Bill of Rights and CEDAW, both recognize and prohibit discrimination based on sex. It is of note that the CEDAW committee later extended the meaning of that discrimination (in General Recommendation 28) to also encompass discrimination based on gender, but with reference to the distinct concept of biological differences: "socially constructed identities, attributes and roles for women and men and society's social and cultural meaning for these biological differences resulting in hierarchical relationships between women and men and in the distribution of power and rights favoring men and disadvantaging women."

These latest regressions appear – in my view – to thrust the original basis on which discrimination takes place and is prohibited (namely, discrimination based on sex) center stage. It is becoming clear that the discrimination and violence exercised against women and girls is increasingly taking place in a number of countries on the basis of their perceived female sex, or needs related to their female sex.

## Inadequate data

Unfortunately, today there is a concerning deprioritization of sex-related data, driven in large part by a deliberate conflation of sex and gender, which leads to erroneous conclusions, mischaracterization of problems in society, and therefore also to misinformed responses.

It also leads to an inadequate data set from which to understand the particular needs of those affected by gender-based discrimination, including transwomen and transmen. These problematic consequences are exacerbated by the fact that evaluations of programs and policies to end and respond to violence against women and girls continue to be inadequate – as is data collection.

The widespread and at times deliberate conflation of sex with gender and the steady decision not to collect sex-related data in a number of countries further contribute to this problem. It is worth noting that article 74 of the 2030 Agenda states that follow-up and review processes at all levels must be rigorous and evidence based, and informed by country-led evaluations and data that are disaggregated along a number of factors, including sex.

The term intersectionality has been defined in many ways. At its heart "it recognizes that people's lives are shaped by their identities, relationships, and social factors." While as a term it does not appear in the text of the 2030 Agenda, it includes a number of other terms such as "interlinkages," "interconnected," and "integrated." These terms demonstrate that the drafters understood that the goals and indicators of the 2030 Agenda were more than the summed parts of a whole that could only be addressed in silos, independently from each other.

## An intersectional lens

We know that applying an intersectional lens helps connect human rights to multiple forms of discrimination that people experience. We also know that in the case of violence against women and girls, we need to consider how sex and/or gender intersects with other inequalities and oppressions to produce unique experiences of violence.

Furthermore, "intersectional approaches to VAWG [violence against women and girls] recognize that all oppressions exist simultaneously, and that categories of oppression mutually construct each other to create unique experiences of violence for women and girls" (see UN Women, The value of intersectionality in understanding violence against women and girls, page 4).

Despite that knowledge, policymakers and states still do not take a comprehensive approach to connecting the dots and looking at matters holistically. Take the clear impact that pornography has had on negatively shaping the views of men and boys about women and girls, objectifying them, normalizing violent sex, and creating an expectation for it.

Yet the Agreed Conclusions of the 67th session of the Commission on the Status of Women that was held with the priority theme "Innovation and technological change, and education in the digital age for achieving gender equality and the empowerment of all women and girls" only referred to child pornography but not the wider harmful impacts of pornography.

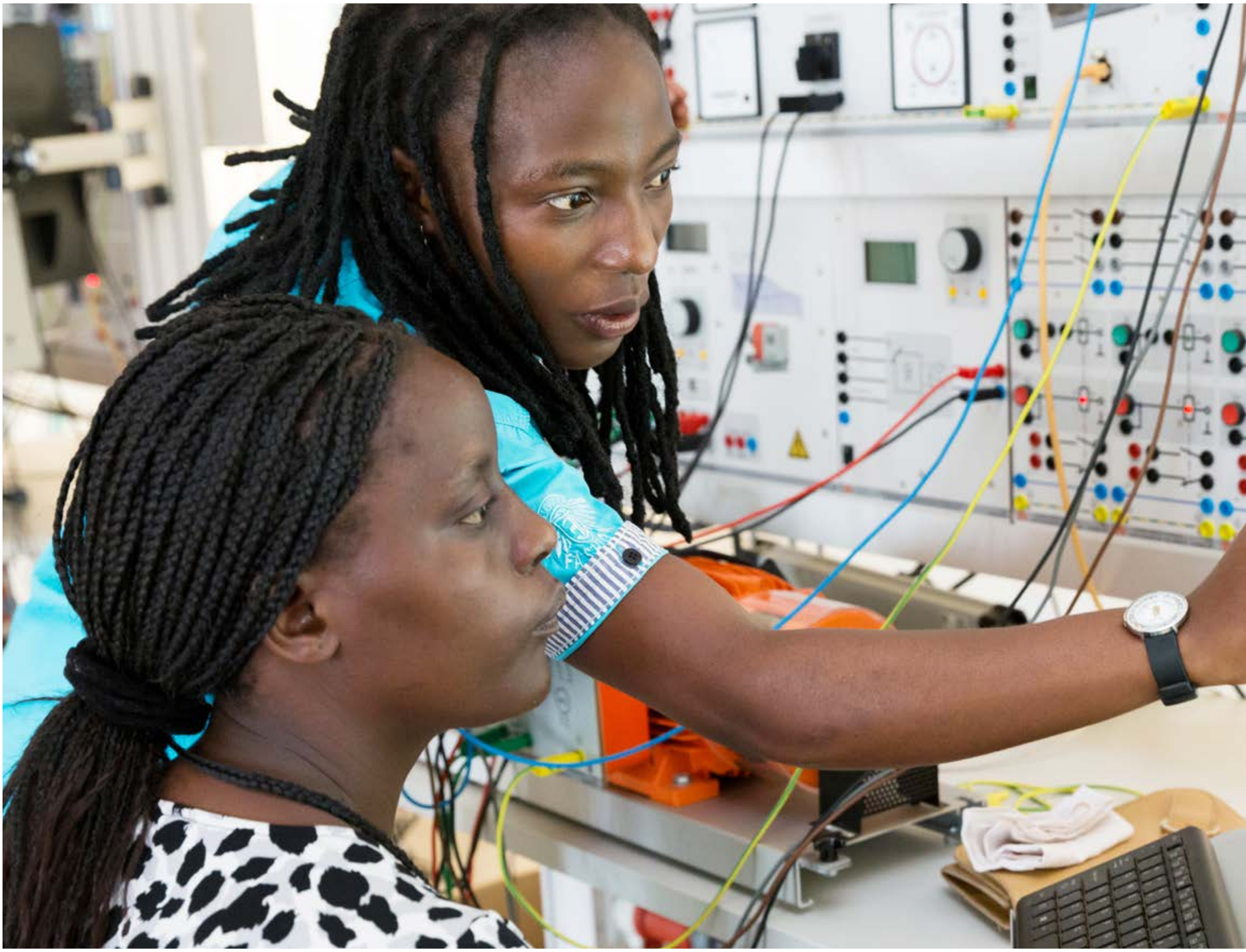
We are also hearing less and less about women who, due to intersecting grounds, are facing increased rates of violence by state and non-state actors, intimidation, and sexism, and who also face higher barriers in being able to access assistance, protection, and care. For example, in the US today, black and indigenous women are at a disproportionately greater risk of being killed at the hands of police, at a rate more than twice that of white women.

Furthermore, if there is one takeaway from the collection of communications that the mandate has sent to different governments over the years, it is that women and girls belonging to minorities that already suffer discrimination are often those that experience the most severe forms of violence – such as black and indigenous women, women and girls belonging to religious minorities, and disabled women, among others.

Despite the understanding that intersectional causes of violence require intersectional needs assessments and integrated service delivery for survivors of violence, this is not happening. For example, in a recent report issued by the Organisation for Economic Co-operation and Development, only 48% of national governments report promoting integrated service delivery for women survivors of violence "somewhat" or to a "great extent."

Within this context, funding for intimate partner violence continues to be irregular and inadequate, and many of the policy prescriptions to address gender-based violence continue to be "top down." A recent UN Women policy brief on addressing violence against women through social protection schemes review of a global sample of national social protection strategies revealed that specific policies or measures to prevent or respond to violence against women only occurred in half of these.

I have always said that the true litmus test for how developed, prosperous, and peaceful a society is, is how it treats its women and girls. This cannot be achieved if we do not take an interconnected approach to applying the SDGs, one in which we try to give meaning to transformative gender equality through each and every SDG, both individually and collectively. ■



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# Accelerating action on gender equality

**Gender equality is critical to realizing all the SDGs, yet progress remains unacceptably slow. Humanity's future demands that we urgently fix the multitudinous factors blocking women and girls from achieving their potential**

By Sima Bahous, UN Under-Secretary-General and Executive Director, UN Women

◂ Students in the renewable energy lab at the University of Rwanda. Digital inclusion and literacy skills are critical factors for the well-being and success of women and girls

Everywhere, crises continue to exact their highest toll on women and girls. Violent conflict, displacement, the growing climate emergency, the repercussions of the global pandemic, and vocal anti-feminist movements have reversed generational gains in women's rights. UN Women's Gender snapshot 2022 shows that Sustainable Development Goal (SDG) 5 is off track, reflecting and affecting the progress of all of the SDGs. Without change, it could take close to another 300 years to achieve full gender equality. Our sights are set on a much closer date: 2030, the endpoint for achievement of all SDGs.

There is a close correlation between gender equality and stability, resilience, poverty reduction, growth, and social cohesion. When women and girls in all their diversity live up to their full potential, they are the key to unlock our common challenges. To realize that aim we do not need to fix women – we need to fix the systems and structures that are currently preventing progress and reverse the regressive social norms that are pushing back women's rights and limiting their full and meaningful participation.

This will take collective political will, public and private-sector commitment, and accelerated action in strategic areas, including innovative tools and special measures, as well as better laws, financing, and data to tackle these key barriers.

To achieve the progress we seek, we must ensure that women and girls are equally equipped and meaningfully represented in all walks of life and across all spheres of decision-making.

Solutions that tackle the current imbalances and accelerate progress through innovation and technology are being discussed this year in New York at the Commission on the Status of Women. These include bringing women and girls to the center of innovation and bridging the gender digital divide as a key enabler of women's education, leadership, and economic empowerment.

While not a full solution on their own, digital inclusion and literacy skills are critical factors for women's and girls' well-being and success. They are powerful amplifiers for their voice and leadership, opening new avenues for learning, earning, and leading.

Yet a significant access gap remains to be bridged: three billion people remain unconnected to the internet, the majority of whom are women and girls. The future of technology must not be a future of inequality – nor one of violence and abuse. Digital activism and movements like #MeToo demonstrated the power of collective digital action and civil society to promote change and drive increased accountability for rights violations.

New technologies, including artificial intelligence, must be designed to be unbiased, safe, inclusive, and accessible from the start – and that means ensuring that women and girls are a central part of their design, development, and deployment.

***We must invest in digital, science, and technology education for girls and women in bold new ways that foster their full eligibility for 21st-century jobs and leadership***

We must invest in digital, science, and technology education for girls and women in bold new ways that foster their full eligibility for 21st century jobs and leadership across all areas of life in an increasingly digital world. And we must shift power across the tech and innovation sectors and safeguard jobs and leadership positions for women there – currently they occupy only one in three positions in the industry.

Together, we can shape a future that truly and comprehensively advances women's rights and prosperity. A future where women and girls have equal opportunities to safely and meaningfully access, use, lead, and design technology. One that ensures that building inclusive, digital economies is at the core of COVID-19 recovery efforts. And where technology contributes to transforming social norms, amplifies women's voices, pushes back against online harassment, prevents the perpetuation of algorithmic biases, and spreads the benefits of digitalization broadly and equally to achieve the SDGs. ■


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# The SDGs need a strong civil society

**The Global Goals represent a quest to achieve human rights for all. In the face of democratic backsliding and a global trend to restrict free speech, we must ensure that civil society remains an active force for their progress**

By Kizito Byenkya, Director of Campaigns, Open Society Foundations, and Chanu Peiris, Special Assistant to the Global Director for Advocacy, Open Society Foundations

Agenda 2030 has suffered a significant setback. Its engine, civil society, is being severely limited in its ability to affect positive change. Civil society's role is vital, as it helps drive the action, cooperation, and innovation to realize the SDGs. The Global Goals are entering their most important development phase, at the halfway point to 2030. To achieve them, we need an active and robust civil society that can facilitate their urgent implementation. The SDGs are not only the domain of governments and multilateral institutions, and so the current approach must be accelerated by including a bigger tent of actors that will ensure that the change sought will be sustainable.

### A shrinking civic space

Civil society is being limited both in terms of operations and access. The enabling environment for civil society to be effective continues to worsen. Progress in the global democracy levels achieved over the past 35 years has been erased, according to V-Dem Institute's Democracy Report 2023. In addition, around 70% of the world lives in closed or repressed spaces, according to CIVICUS' 2023 report on civic space.

While the reasons for democratic backsliding vary, there is an overwhelming sense that democracy is failing to adequately deliver on society's biggest challenges – including gross economic inequality – resulting in mistrust and recourse to alternatives models. The consequences of this are broad human rights regressions

◀ A demonstration outside the House of Commons, UK in support of women in Iran and their struggle for greater freedom. The UK is one of many countries in the last few years to increase restrictions on the right to protest

including deteriorating freedom of expression in 35 countries and worsening repression of civil society organizations in 37 countries.

The causes of the shrinking civic space phenomenon go beyond the widespread disenchantment with liberal democracy and the rise in populist and authoritarian regimes. For example, the attacks of 11 September 2001 sparked a worldwide proliferation of counterterrorism measures, which have been used to repress civil society. Most recently, some countries have used anti-money laundering laws to falsely charge non-governmental organizations (NGOs) with terrorism financing, as a way to close down their operations and activism.

Technology is also increasingly enabling repression, including through the expansion of digital surveillance systems and powers during the COVID-19 pandemic and the unregulated use of artificial intelligence. Our world now mostly communicates and organizes online. Restrictions to this next frontier of civic space limit the information and innovation needed to help advance the SDGs. The deepening "splinternet" – that is, the fragmentation of the global internet into several smaller, closed networks – also presents considerable risks to information sharing and collective action.

Furthermore, access and partnership by civil society with the UN to advance Agenda 2030 is sporadic. NGOs have played an important role in delivering the agenda to date, helping launch and design the SDGs, especially those goals with people-centered commitments. However, while NGOs have access via the United Nations Economic and Social Council and official consultations, they are not being prioritized in the implementation, and are only being involved in an ad-hoc way.

## What can be done?

If the engine for the SDGs is under constant attack, how can it have an active role?

The importance of civil society is that it fosters a strong connection with communities that are first in line to be impacted by the SDGs. Efforts in recent years to contain the world's growing "polycrisis" have diverted resources and attention away from the implementation of the SDGs, placing even more onus on civil society to help. Ensuring that civil society remains an active force and engine for progress therefore demands bold and innovative solutions.

A good first step is to provide the platform and space for action, a bigger tent for civil society to drive progress. Integral to sustainable development is the concept of participation. Accordingly, SDGs 16 and 17 acknowledge, respectively:

- the importance of fostering an inclusive and open society
- the necessity for collaboration among all stakeholders to realize the 2030 Agenda

For example, over the past two years, a highly consultative mechanism was developed for people of African descent through operationalizing a Permanent Forum. The forum is effective in bringing together civil society and UN members to develop and advance key priorities on racial discrimination. Supported by a Working Group, this is a good example of how civil society can drive progress when provided the platform.

Second, as civil society is already active in implementing many of the SDGs, these efforts should be tapped into as part of the next phase of acceleration. After all, the domain of the SDGs is the responsibility of everyone, not just UN members.

For example, over the last five years there has been an effective regional campaign in Africa, Asia, and the Caribbean to decriminalize laws (often colonial era) that target poor and marginalized people because of who they are, not what they have done. These laws treat poverty, status, or activism as a crime – offences such as vagrancy, loitering, or being idle that are often used against homeless and poor people. Repealing them has helped contribute to an enabling environment to advance SDG 1 (end poverty).

Third, civil society's influence should be strengthened through specific roles that will enable participation from closed and repressive countries. A practical way to consider this is to have a Special Envoy for Civil Society, connected to the Secretary-General's office. This role would be tasked to support inclusive participation by civil society across the UN. It would require close collaboration, advancing conditions that allow civil society to meaningfully participate, and ensuring that civil society is consulted within countries and forums that restrict access.

In addition, we should consider an annual "Civil Society Action Day" in the margin of the High-level Political Forum on Sustainable Development or the UN General Assembly. This could serve as a space for accountability and stocktaking of ongoing efforts to strengthen the role of civil society at the UN. It would be action-oriented in how civil society can help advance the acceleration needed on the SDGs.

## Conclusion

In the face of considerable challenges, civil society organizations continue to have tremendous impact on progress towards the SDGs. Civil society has shown how it can be an engine for progress by:

- incubating novel solutions
- holding institutions to account
- highlighting societal issues
- partnering with governments and multilateral institutions
- delivering crucial services to meet societal needs

Access by civil society to the UN must be addressed in meaningful and practical ways to deliver on the SDGs. The threats facing civil society must also be countered. Achieving Agenda 2030 will require a robust and active civil society – so let's get to work. ■

# Protecting the right to water

**Access to safe drinking water and sanitation are established human rights. Yet, halfway through the Water Action Decade, billions of people are still denied them. This year, nations have pledged to drive transformation to a water-secure world, and must now urgently act on their promises**

By Gilbert F. Houngbo, Director-General, International Labour Organization (ILO)

Imagine life without safe drinking water and sanitation. What would be the consequences? Inconvenience, discomfort, compromised personal hygiene? Would the services your community relies on cope? What about your job? Your children at school? How long before your family got sick?

Safe and adequate water and sanitation are as critical as the air we breathe. Living without them, even temporarily, is not just dangerous and destabilizing – it is an existential threat.

This is why the United Nations General Assembly (UNGA) recognized the human rights to safe drinking water and sanitation in 2010 and 2015 respectively. This action made explicit the international consensus that these rights are inextricably bound up with all other human rights – and so the objective of the entire 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). So, what do these recognitions entail?

The human right to water entitles everyone, without discrimination, to sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic use. This includes water for drinking, sanitation, washing, food preparation, and personal and household hygiene.

Equally, the human right to sanitation entitles everyone, without discrimination, to physical and affordable access to sanitation that is safe, hygienic, secure, socially and culturally acceptable, and which provides for privacy and ensures dignity.

The obligation on Member States to protect these rights derives from the right to an adequate standard of living and is now well established. However, for many millions of people worldwide they remain little more than words on paper. For them, safe drinking water and sanitation remain out of reach. The consequences can be devastating, particularly in relation to child mortality.

## Slow progress

Today, 2.2 billion people still lack accessible, uncontaminated drinking water. Approximately 3.5 billion lack safely managed sanitation, according to a new report by the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene.

Our failure to deliver these basics of human survival is part of a broader lack of progress toward the targets of SDG 6 (to ensure availability and sustainable management of water and sanitation for all by 2030). SDG 6 covers the entire water cycle, from WASH (water, sanitation, and hygiene) to water use efficiency, wastewater treatment, water quality, and transboundary cooperation on water, among other factors.

We are now more than halfway along the timeline of Agenda 2030. Why, then, are so many people's human rights to water and sanitation left unfulfilled? Do we stand any chance of achieving universal access to safe water and sanitation and meeting SDG 6 by the end of this decade?

We have seen progress. The latest data from the JMP shows that since 2015, nearly 700 million people around the world have gained access to safely managed drinking water services and 902 million people have gained access to basic sanitation. But this is not nearly enough. Rates of progress need to increase sixfold on drinking water and five times on sanitation.

There are some encouraging signs that more action is in the pipeline. In March this year the UN 2023 Water Conference convened at the United Nations in New York. It was the first time since 1977 that such a meeting had been held and that UN Member States had united around solving the water and sanitation crisis, pledging to get progress back on track.

## Social justice

A key outcome of the Conference was the Water Action Agenda. This collects together existing and new commitments from the international community that aim to deliver rapid, transformational change on all water-related targets.

What's more, throughout the discussions at the Water Conference there was a consistent focus on ensuring water and sanitation action plans prioritize people who have been marginalized, excluded, or ignored. For me, this marked an important shift, because it amounts to an explicit recognition of the link between compromised water and sanitation rights and a broader lack of social justice. Because, when rights to water and sanitation are inadequate,

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▲ Collecting drinking water in the flooded village of Yar Muhammad in Sindh Province, Pakistan. Six months after the floods, there were still an estimated 10 million people in Pakistan without access to safe drinking water

the rights to other basics of dignified human existence – healthcare, representation, voice, education – frequently are too. In this sense, inadequate water and sanitation can be an indicator of inadequate social justice, a “canary in the mine.” This must concern us all because inadequate social justice for specific groups opens the floodgates to far greater, even existential, problems, including instability, inequality, unilateralism, and political extremism.

Encouragingly, across the policy landscape we are seeing greater recognition of the need to prioritize social justice and the broad range of policy, legal, and other changes that contribute to it – including access to water and sanitation. A concrete example of this is the adoption of a human rights-based approach to water governance, management, and accountability.

Supported by the Office of the High Commissioner for Human Rights, the Special Rapporteur on the human rights to safe drinking water and sanitation has been providing vital leadership and authoritative guidance on these issues. This has spurred change both at national level and across the UN system.

In 2022, UNGA resolution 76/300 recognized for the first time the human right to a clean, healthy, and sustainable environment, so building on its work in 2010 and 2015. This decision was a concrete sign of the global community’s acceptance that all human rights are interrelated and that the rights to water and sanitation are linked to those in all other areas of human existence – including support for sustainable development, social justice, and a healthy planet.

The protection of these rights – universal, interdependent, interrelated, and indivisible – must be our guiding principle. People and planet must come first, and the UN must repay the trust of ordinary citizens by accelerating progress and reforming the multilateral system so that it can deliver the changes and actions that are needed for a sustainable and equitable future.

Delivering on the human rights to safe drinking water and sanitation will be an essential part of this. And it will be an important step along the road to the overall 2030 Agenda goal of a more sustainable, socially just, and so more stable world. ■

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# Gender and sanitation: more than just a toilet

Over a billion women and girls worldwide lack safe and adequate sanitation. Addressing this fundamental human right offers a unique chance to both address poor sanitation and foster gender equality

◂ Rohingya girls pump water in Balukhali refugee camp, Bangladesh. Many of the gender equality targets are directly linked to sanitation

By Jess MacArthur, Research Consultant, Institute for Sustainable Futures

Several years ago, I had the opportunity to visit a community in southern Bangladesh monitoring newly installed latrines. As I learned about the different features of the toilet, I noticed a young woman standing on the periphery. I asked her how she was enjoying her new toilet and she looked to the ground. It was clear that something was not quite right. She led me behind the house and showed me the hole in the ground where she and her children relieved themselves. You see, in this part of Bangladesh, women are ashamed to be seen by men entering a toilet. And the women's husband, perhaps selfishly or perhaps by social pressure, installed the latrine at the front of the house in a place where she didn't feel comfortable going.

On another occasion, I spoke to a Bangladeshi woman who, through tear-filled eyes, explained that her latrine had broken, and she had nowhere to go. She had sent her daughter to relatives, but had no way of knowing when the latrine would be fixed. She had no opportunities to earn money and was completely reliant on her day-laborer husband.

Or the Cambodian woman who ordered her family's first latrine, and faced domestic violence because she took the decision on her own.

Or the Indian woman who was unable to go to the bathroom when she wanted to because her mother-in-law controlled her toilet usage.

Or the woman in Zambia who is ashamed to use the same facility as her father-in-law.

Or the men in India who view using a toilet as being weak and prefer to go to the fields.

Or the millions of women and girls around the world who face the risk of violence when they go to the toilet or the fields to defecate.

Or the individuals all around the world who plan their daily errands around finding safe and clean facilities.

Or the constant discussion you have with your partner about cleaning the toilet.

Sustainable Development Goal (SDG) Target 6.2 seeks to provide access to adequate and equitable sanitation and hygiene for all and to end open defecation, paying special attention to the needs of women, girls, and those in vulnerable situations.

While progress has been made in the last decade, by 2020 estimates, 494 million people and 13% of rural households globally still practice open defecation. And only 44% of rural households and 62% of urban households have safely managed sanitation.

The monitoring strategy of counting households with latrines is a reasonable proxy for toilet use but misses the complexities of actual access and use. As such, development professionals must reflect on the physical, social, cultural, and even spiritual aspects of improved sanitation.

> ***// By 2020 estimates, 494 million people and 13% of rural households globally still practice open defecation. And only 44% of rural households and 62% of urban households have safely managed sanitation***

## Gender divide

Globally, aspects of sanitation access, use, upkeep, and maintenance are strongly gendered. This implies that they are not necessarily equal for women, men, and individuals of other genders. Sanitation activities in the home are often divided on gender lines, with women and girls traditionally responsible for domestic sanitation chores, including collecting water, caring for children and the elderly, and cleaning.

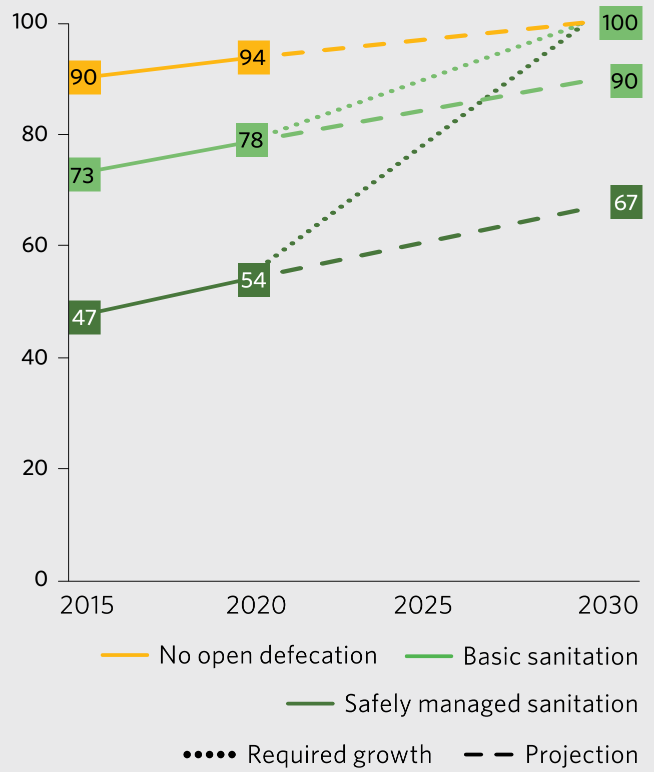
Additionally, women and girls face unique physical, cultural, emotional, and spiritual sanitation challenges during defecation, urination, menstruation, pregnancy, and menopause. Sexual and gender minorities also have specific, yet often overlooked, sanitation needs. Uniquely, sanitation facilities are often also places to bathe and change menstrual materials. These facilities have significant impacts not only on health but also on personal wellbeing.

Climate change continues to add further stress on sanitation facilities and practices, disproportionally impacting women, girls, and the vulnerable. During droughts, many households resort to unsafe practices as there is no water to cleanse, clean, and flush. During floods, toilets overflow and many communities experience outbreaks of diarrheal diseases, such as cholera.

Yet, because of these deep connections between sanitation and gender, these challenges offer a unique opportunity to not only address poor sanitation but also to foster gender equality. Many of the gender equality SDG targets are directly linked to sanitation.

For example, sanitation provides opportunities to reduce discrimination against women and girls by placing their needs at the forefront of best practices (Target 5.1). Such approaches must also be expanded to support women in all their intersectional diversity and sexual and gender minorities.

**FIGURE 1:**
Global coverage of sanitation 2015–2020 (percentage), and acceleration required to achieve universal coverage by 2030




*Source: Sustainable Development Goals Report 2022*

## A gender-transformative approach

Sanitation also provides opportunities to address violence and exploitation of women and girls using and accessing facilities (Target 5.2). Sanitation can provide opportunities for communities to discuss and transform perspectives of unpaid domestic responsibilities (Target 5.4).

Improvements in sanitation can provide opportunities to engage women in more equitable decision-making in the home, community, and even in the public sphere (Target 5.5). Sanitation also provides a unique entry point to support reproductive health and rights for women and girls and to reduce cultural and social stigmas related to menstruation (Target 5.6). It also offers an opportunity to promote the rights of women to economic resources and financial services, with women often the first movers towards purchasing new latrines, and women entrepreneurs running successful sanitation businesses (Target 5.7).

Sanitation technologies also provide opportunities to empower women in waste management, treatment, and transport (Target 5.8). Lastly, policy changes related to female-friendly toilets and meaningful involvement of women in community sanitation management can address inequalities at multiple levels (Target 5.9).

This approach of addressing sanitation alongside gender equality is a gender-transformative approach to sanitation. It goes beyond merely providing households with latrines and simply including women and girls in sanitation development programming.

It aims to not only empower women, girls, and the marginalized in the ways in which sanitation programming is conducted but also to address the social, cultural, political, and economic structural barriers that perpetuate inequalities. A toilet is never just a toilet. ■

Prince Sultan Bin Abdulaziz International Prize for Water

*Recognizing Innovation*

# Winners for the 10th Award (2022)

## Creativity Prize

Creativity Prize

**1) The team led by Thalappil Pradeep (Indian Institute of Technology, Madras, India)**
for the creation and successful deployment of environmentally friendly "water positive" nanoscale materials for the affordable, sustainable and rapid removal of arsenic from drinking water. Team members include Avula Anil Kumar, Chennu Sudhakar, Sritama Mukherjee, Anshup, and Mohan Udhaya Sankar.

Dr. Thalappil Pradeep

**2) The team led by Dionysios D. Dionysiou (University of Cincinnati, USA)**
for the development of innovative advanced oxidation technologies and nanotechnologies for environmental applications, particularly in the removal and monitoring of emerging contaminants. Team members include Wael H.M. Abdelraheem, Abdulaziz Al-Anazi, Jiong Gao, Ying Huang, and Vasileia Vogiazi.

Dr. Dionysios D. Dionysiou

## Surface Water Prize

Surface Water Prize

**Dennis D. Baldocchi (University of California Berkeley, USA)**
for the development and implementation of effective models to understand, evaluate and predict evapotranspiration and water-use efficiency in various environments under climate change conditions.

Dr. Dennis D. Baldocchi

## Groundwater Prize

Groundwater Prize

**Linda M. Abriola (Brown University, USA)**
for pioneering research on toxic Dense Non-Aqueous Phase Liquids (DNAPLs) in groundwater, ranging from the simulation of their fate to effective methods for cleaning contaminated sites.

Dr. Linda M. Abriola

## Alternative Water Resources Prize

Alternative Water Resources Prize

**The team of Menachem Elimelech (Yale University, USA) and Chinedum Osuji (University of Pennsylvania, USA)**
for wide-ranging advances in nanostructured materials for next-generation water purification, focusing on implementation issues like manufacturing, sustainability, self-assembly, and biofouling.

Dr. Menachem Elimelech

Dr. Chinedum Osuji

## Water Management and Protection Prize

Water Management & Protection Prize

**The team led by Matthew McCabe (KAUST, Thuwal, Saudi Arabia)**
for employing CubeSat constellations in the sustainable management and security of linked water-food systems, along with estimates of agricultural water use at unprecedented spatial and temporal resolutions and with global coverage. Team members include Bruno Aragon (KAUST) and Rasmus Houborg (Planet Labs, USA).

Dr. Matthew McCabe

## Invitation for Nominations

# 11th Award (2024)

## Nominations open online until 31 December 2023

www.psipw.org e-mail: info@psipw.org

# Improving health outcomes through access to water

At current progress rates, 1.6 billion people will lack safely managed drinking water by 2030. Ramping up financial and political investment in access to water, sanitation, and hygiene, particularly in the world's poorest countries and in the face of climate change, is now essential for achieving the SDGs

By Bruce Gordon, Unit Head of Water, Sanitation, Hygiene (WASH) and Health, World Health Organization (WHO), and Maria Neira, Assistant Director-General for the Division of Healthier Populations; Director Department of Environment, Climate Change and Health, WHO

© UNICEF/Alfredo Zuniga

◀ Children made homeless by Cyclone Freddy collect safe drinking water from the well at a health centre in Zambezia province, Mozambique. The region suffered a cholera outbreak in the aftermath of the cyclone

The last decade has seen considerable improvements in the service levels of safe drinking water, sanitation, and hygiene (WASH) across the globe. However, progress is uneven, and insufficient to meet the 2030 Sustainable Development Goal (SDG) targets on water and sanitation. Currently, half the world's population still doesn't have access to WASH. To make safely managed services universal, rates would need to quadruple globally, and in the least developed countries up to tenfold. The human cost of this access gap is shocking: the latest WHO data tells us that 1.4 million lives could have been saved in 2019 alone if everyone had access to water and sanitation, both of which are human rights.

Investing in WASH services can lead to significant reductions in diarrhea cases and save countless lives. Taking the example of drinking water, simple household-level interventions like filtration or chlorination can quickly improve water quality and decrease diarrhea. More significant and sustainable risk reductions, however, require longer-term systems change that promote professionally managed water supply. The WASH-attributable burden of disease is disproportionally felt among the most vulnerable populations who, in addition to diarrhea, face myriad diseases including parasitic infections and undernutrition.

Underscoring growing awareness on the global water crisis, the United Nations, for the first time in 50 years, convened a conference on water, which called out the need to accelerate action. The UN 2023 Water Conference called for strengthened partnerships between WASH and health at all levels – global, regional, national, and sub-national. It recognized the need for a WASH systems approach, calling for long-term political prioritization and investment in governance, service delivery, data systems, human capacity, and innovation to accelerate and sustain progress. For these systems-based approaches, government must be in the lead but partner closely with local utilities and ministries from relevant sectors such as health, energy, and infrastructure.

Progress towards SDG 6 (clean water and sanitation) is tracked by the WHO/UNICEF Joint Monitoring Programme, which measures safely managed services as the SDG indicator. For drinking water, this implies delivery without interruptions, to premises and free from contamination. This service can reduce diarrhea by 52%. While longer-term efforts are put in place to establish safely managed services, extending basic services immediately to the unserved remains a priority to protect health.

The UN conference recognized the risk posed by lack of political prioritization, but also loss and damage to water and sanitation systems due to climate change. Climate change is impacting WASH services in many ways, including:

- damage to water supply and sewerage infrastructure
- degradation of catchments and source-water quality
- spillage of fecal waste to the environment
- reduction of water availability
- contamination of water supplies

Many infectious diseases, especially those related to WASH, are sensitive to climate. For example, the increased spread of vector-borne diseases in recent years has been linked to climate change, as well as to rapid urbanization, alteration of land use, and unsafe water management and farming practices. The recent upsurge of larger, deadlier cholera outbreaks is also linked to climate change, as countries with cholera are experiencing extreme climate events.

Despite WHO identifying climate change as the biggest health threat facing humanity, the most recent WHO data shows that most countries have not addressed climate risks or introduced climate resiliency into WASH policies and planning. It is important to not only address the immediate impacts of climate-related disasters, but also to slow the speed of climate change to protect public health.

A transformative approach to WASH is needed that interrupts all pathways for contamination of the environment, including the growing problem with antimicrobial resistance in the environment, and that systematically prevents human exposure to pathogens. This is consistent with the WHO-led One Health initiative, which encompasses interventions to protect the health of humans, animals, and ecosystems. Such an approach requires engagement across sectors – water, health, environment, and agriculture – to identify the root causes of disease and find sustainable solutions.

Going forward, embedding WASH within major health processes like universal health coverage, health systems strengthening, and pandemic prevention, preparedness, and response can accelerate mutual progress on SDG 3 (good health and well-being) and SDG 6. It can also contribute to other SDGs, such as SDG 4 (on education), as attendance is larger at schools with drinking water taps, toilets, and facilities to manage menstrual health and hygiene needs. Priority actions include:

- integrating WASH into all health policies and programs
- development of health-protective WASH regulations and standards
- using public health surveillance data to target WASH investments in high disease-burden areas and prevent outbreaks
- ensuring WASH in healthcare facilities for patients, staff, and carers as an effective infection, prevention, and control (IPC) measure. ■

# Lack of gender targets for clean energy is harming women and girls

**Gender inequalities in energy access are substantial but largely unmeasured. SDG 7 – affordable and clean energy – is one of six SDGs without gender-specific indicators. Clean and safe energy is a prerequisite for achieving all the social and economic SDGs, and SDG 5 – gender equality – will only be achieved if a more targeted approach is adopted on energy**

By Elizabeth Cecelski, Founder Member, ENERGIA International Network on Gender and Sustainable Energy, and Sheila Oparaocha, Director, ENERGIA International Network on Gender and Sustainable Energy

A third of the world's population lacks access to clean energy. Nearly four million people die each year from illnesses caused by household air pollution. Access to electricity is lacking for 759 million people, mostly in Africa and South Asia, while 2.6 billion people do not have access to clean cooking solutions.

Women and girls are the worst impacted by energy poverty. Their lack of access to energy to enable healthcare, education, food security, public safety, and economic opportunity affects their ability to live modern, dignified lives.

Women's leadership, employment, and entrepreneurship in the energy sector are also essential, both for gender equality and for more effectively supplying sustainable energy for all.

Gender equality and the empowerment of women and girls are universal goals, as set out in:

- Sustainable Development Goal (SDG) 5 on gender equality
- the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)
- the 1995 Beijing Declaration and Platform for Action

Access to affordable, sustainable, safe, and clean energy is a precondition for achieving SDG 5 and for empowering all women and girls. The UN resolution adopted during the High-level Dialogue on Energy in 2021 recognized that access to and effective supply of sustainable energy can be improved and accelerated by gender equality and female empowerment. The resolution called upon governments, the UN development system, and other stakeholders to take actions to mainstream gender equality in policies and programs.

Yet gender inequalities in energy remain substantial and largely unmeasured. SDG 7 (affordable and clean energy) is one of six SDGs that have no gender-specific indicators, according to UN Women. While recent initiatives by national governments, international organizations, the UN system, non-governmental organizations (NGOs), and the private sector are seeking to close these gender gaps, more efforts are urgently needed.

*// Gender inequalities in energy remain substantial and largely unmeasured. SDG 7 (affordable and clean energy) is one of six SDGs that have no gender-specific indicators*

## Sustainable energy and gender equality are interdependent

Women and girls face gender inequalities in energy access and participation that impact other SDGs. We need progress in four key areas:

- energy poverty
- employment and leadership
- entrepreneurship
- the enabling environment

### Energy poverty

Unequal energy access disproportionately affects women and girls due to their gender roles and responsibilities – for example, through time spent on domestic chores and unpaid care.

© Natasha Elkington/CIFOR

▲ Women carry firewood to sell in Oromia region, Ethiopia. In many developing countries, women spend much of the day collecting fuelwood, cooking, and performing other household tasks that could be supported by energy access

Women in many developing countries spend on average 1.4 hours a day collecting fuelwood and four hours cooking, in addition to other household tasks that could be supported by energy access. This limits their access to education and employment. Multiple studies show that after household electrification, women are 9 to 23 percentage points more likely to gain employment outside the home.

Using polluting energy for cooking increases women's exposure to health risks. Lack of electricity excludes them from new digital technologies that are prerequisites in the modern world for decent employment and cultural and political engagement. It also lowers productivity in their businesses and farms.

Some argue that these factors could ultimately affect women's reproductive choices, and hence demographics and even future carbon emissions.

A recent study in Nature Sustainability estimated that implementing adequate policies to replace wood and charcoal-burning stoves could prevent at least 463,000 deaths and USD 66 billion in healthcare costs yearly in sub-Saharan Africa.

## Employment and leadership

Equal opportunities in the workforce are essential to guaranteeing a just energy transition. Yet the energy sector remains male dominated and unrepresentative of the workforce at large, despite the clear benefits of employing a diverse workforce.

Research shows that firms with at least 30% female leadership enjoy profit margins of up to six percentage points higher than firms with no women in the top ranks. Companies with women in their management also tend to invest more in sustainability and are more energy efficient and environmentally sustainable.

Access to quality jobs and finance are critical levers of empowerment for women and their families. Even in the renewable energy sector, less than a third of jobs overall and only 22% of technical roles are estimated to be held by women, according to an IRENA survey. In the power sector, this share may be even lower, according to a World Bank study.

Wages for female employees in the energy sector are 20% lower than for their male counterparts, according to the International Energy Agency (IEA), even when differences in skill levels are accounted for. The IEA also found that, on average, there are 76% fewer women than men working in the energy sector. That compares with the average 8% gap for the total workforce, according to 2018 data from 29 IEA members.

## Entrepreneurship

Gender diversity in the energy sector is vital for driving more innovative and inclusive solutions for clean energy transitions throughout the world. Women entrepreneurs are the source of many innovations to mitigate climate change. Yet, according to the IEA, in the patent classes closely associated with energy (combustion apparatus, engines, pumps, and power), women are listed in fewer than 11% of applications.

Even in the dynamic area of start-ups, only about 11% of energy sector founders are female, compared with 20% across all sectors.

Further, through their businesses, women entrepreneurs (often heads of households) provide income for food, healthcare, and children's education. Energy access plays a critical role in diversifying women's livelihoods through productive uses that increase income and can reduce poverty.

Women entrepreneurs can also improve the effectiveness of the energy supply chain by fast-tracking the last-mile distribution of renewable energy technologies. They have the unique ability to connect with their female customers, can increase awareness in their communities, and can deliver products and services through untapped social networks.

Globally, women represent one in three growth-oriented entrepreneurs across all sectors, yet they receive less than 3% of equity financing. Female entrepreneurs face more barriers to business success than men, namely:

- restricted mobility
- social and cultural norms
- (most important) difficulties in accessing both formal and informal credit

These barriers are partly due to women's low asset ownership and lack of access to financial networks, which need to be addressed urgently.

## The enabling environment

The enabling environment for women's participation in the energy sector includes gender-responsiveness in energy planning, policymaking, and regulation, and tracking and monitoring of progress. Energy policies and planning are often 'gender blind' and lack a gender perspective. Women are under-represented in energy decision-making processes, gender-disaggregated data and information are sparse, and policymakers and practitioners lack awareness of gender dimensions.

Gender inequality can be further exacerbated by national energy policies, regulations, and subsidies. Women have differing labor-market and mobility patterns, and encounter difficulties in accessing subsidies and credit, especially in the informal sector. For example, fossil fuel production subsidies have largely been directed at industry and transport rather than cooking fuels, and tend to be regressive.

According to the World Bank, USD 1.9 trillion was invested in 2018 in electrification globally. Yet interventions and investment to address gender gaps in the sector remain minimal.

## Enabling a gender-just energy transition

The role of women and gender-transformative policies in the energy sector is essential not only for achieving SDGs 5 and 7 but also for building a climate-just future. As discussed recently at side events at COP27, interlinkages between gender equality and universal energy access also exist with climate action (SDG 13), health (SDG 3), education (SDG 4), food security (SDG 2), and clean water and sanitation (SDG 6).

Lack of gender-responsive financing mechanisms currently hinders the full participation of women in the climate and energy transition. Sustainable energy plays an important role in climate change mitigation. It can also play a key role in adaptation, and in reducing the climate vulnerability of women and girls.

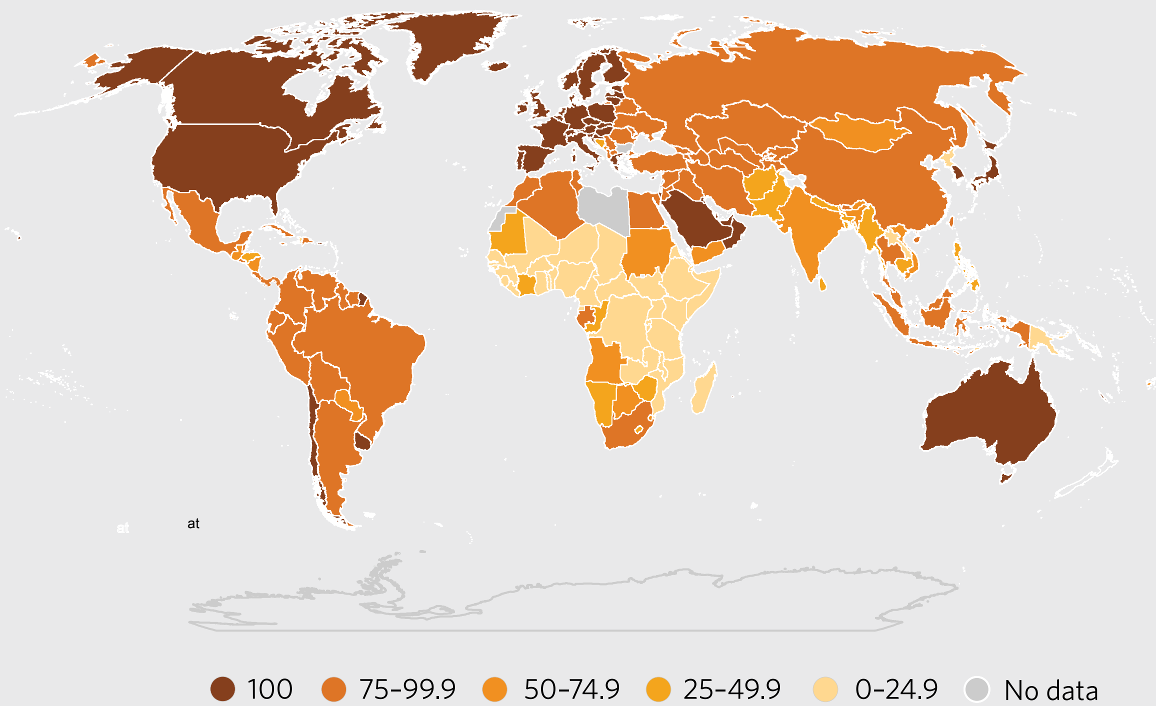
In the words of Milagros De Camps, Vice Minister for International Cooperation at the Dominican Republic's Ministry for Environment and Natural Resources, "not everything that is green is just." Her comments, at the 66th session of the Commission on the Status of Women in March 2022, were a stark reminder that women will not benefit from the creation of green jobs unless the current occupational segregation and gender norms are addressed.

## The road ahead

National governments, international organizations, the UN system, NGOs, and the private sector are increasingly coming together to close gender gaps in sustainable energy and to address the interlinkages of gender and energy with the other SDGs. ENERGIA has supported and trained more than 8,000 women entrepreneurs in the clean energy sector. This has provided almost four million people in last-mile communities in Africa and Asia with access to affordable energy and engendered positive changes in the lives of entrepreneurs' families and communities.

At least 10 countries have included gender in their national energy policies, and the Government of Kenya was the first to adopt a National Gender and Energy Policy, in 2019. The Economic Community of West African States

**FIGURE 1:**
Share of population with access to clean cooking systems, 2020 (percentage)




*Source: Sustainable Development Goals Report 2022*

has developed a Policy for Gender Mainstreaming in Energy Access to provide policymakers with instrumental and human rights-based indicators and rigorous arguments to align energy interventions with principles of gender equality.

In 2022, the World Bank for the first time included gender tracking in its Regulatory Indicators for Sustainable Energy (RISE), which collect data from 111 countries. Also in 2022, the IEA opened a gender and energy portal to track gender gaps in the energy sector in employment and wages, senior management, entrepreneurship and innovation. A key recommendation made in the SDG7 Technical Advisory Group's 2022 UN Policy Brief on Addressing Energy's Interlinkages with Other SDGs, submitted in support of the 2022 UN High-Level Political Forum, was to consider the establishment of a platform to strengthen collection of gender-responsive energy data, to address the lack of data and consistency of data collection.

A multi-stakeholder coalition is coordinating a global Gender and Energy Compact, developed in the framework of the UN High-level Dialogue on Energy and led by ENERGIA, the Global Women's Network for the Energy Transition (GWNET) and the UN Industrial Development Organization. Signatories include the governments of Canada, the Dominican Republic, Ecuador, Iceland, Kenya, Nepal, and Sweden, as well as USAID/ Power Africa and more than 50 public and private sector entities, academia, civil society, youth, and international organizations.

The compact places women and gender equality at the center of achieving SDG 7. It commits to accelerate action towards a just, inclusive and gender-equal energy transition:

- the elimination of energy and time poverty, and the drudgery of women
- increased access to productive resources for businesses owned and led by women
- career advancement, and decent and productive employment
- generation and accessibility of high-quality knowledge, mechanisms, tools, and sex-disaggregated data

Reaching these goals and outcomes requires actions at multiple levels from a wide range of stakeholders. We need more influencers to join the coalition and take action towards a just, fair, and inclusive energy transition that supports gender equality and the empowerment of women and girls. ■

# Undermining their own climate goals

## Each year, trillions of dollars are poured into harmful fossil fuel subsidies or tax breaks that undermine our progress in achieving the SDGs. Shifting these funds to fuel the clean energy transition would accelerate access to basic energy services, improve public health, and put the world on a safer climate trajectory

By Helen Mountford, President and CEO, ClimateWorks Foundation

If we don't shift course, the world is headed toward a catastrophic 2.8°C temperature rise by the end of this century. Already, at 1.2°C of global warming, we're seeing record heatwaves, wildfires, tropical storms, droughts, and floods devastating communities around the world. Yet each year, the SDGs are roadblocked by public funds that delay the transition to clean energy and put all of us at grave risk.

Subsidies and tax breaks for fossil fuel production and consumption don't just compromise our future. They artificially lower prices for inefficient and unsustainable energy choices today, incentivizing greater use even as clean renewables have become cheaper. The emissions they generate also lead to significant harm today: fossil fuels are responsible for 1 in 5 deaths worldwide from air pollution and expose 99% of the global population to unsafe air quality.

### Public funds for fossil fuels hit record highs

At a time when the impacts of the climate crisis are increasingly being felt around the world, government subsidies for fossil fuel use and development are growing exponentially. According to a joint analysis by the Organisation for Economic Co-operation and Development and the International Energy Agency (IEA), direct subsidies and tax breaks for fossil fuel consumption and production almost doubled to USD 697 billion in 2021 from USD 362 billion in 2020 for 51 countries. While most of the subsidies were aimed at reducing consumer prices, there was an almost 50% increase in support of fossil fuel producers.

In 2022, the fifth warmest year on record, public subsidies for fossil fuels rose further, spurred by the global energy crisis caused by Russia's invasion of Ukraine. According to the IEA, fossil fuel consumption subsidies alone reached over USD 1 trillion for the first time. However, it's important to note that this tally does not include government spending in advanced economies to reduce high energy bills, including in European countries, which amounts to at least an additional USD 500 billion. All of this happened in a year when oil and gas companies made record profits. This suggests there has been serious price gouging, with governments, and thus taxpayers, picking up a hefty tab through these subsidies, which in effect have helped line the pockets of fossil fuel company owners and shareholders.

The role of fossil fuel subsidies in delaying climate action is rightfully gaining widespread attention, especially as we face rising inflation, closing fiscal space, and economic uncertainties. This gives hope for a long-overdue transformative shift to finally phase out fossil fuel subsidies. G20 countries already committed to doing so in 2009, followed by Asia-Pacific Economic Cooperation countries, and, more recently, all 197 countries participating in the COP26 climate summit in 2021.

### A renewable-powered revolution

Despite significant fossil fuel subsidies, renewables have seen explosive growth in recent years as their costs have plummeted and new technologies have come to market. Many countries have

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▲ Open-cast coal mine and coal-fired power station at Belchatow, Poland. Poland relies on coal for about 70% of its energy and is currently allowed to subsidise coal-powered generation under EU rules

turned to renewables to bolster energy security and reduce reliance on risky fossil fuel imports. Over the next five years, the world is set to add as much renewable power as it did in the past 20. Renewables are now the cheapest options for meeting new electricity needs, especially solar photovoltaic and wind. As a result, for the first time ever, global investment in clean energy has surpassed fossil fuels. This is important progress to celebrate, but much more is needed.

Existing renewable power targets would increase total renewable power capacity to 5.4 terawatts (TW) by 2030, less than half of the 11.2 TW needed for a 1.5°C pathway. Significantly more investment is required to support increased renewable capacity. BloombergNEF has analyzed the necessary energy supply investments, finding they should reach a 4:1 ratio over the next decade in terms of low carbon to fossil fuel investments. Beyond 2030, this investment ratio rises to 6:1 for 2031 to 2040 and about 10:1 for 2041 to 2050.

Access to clean power must also be expanded. Today, 770 million people live without electricity, mainly in Africa and Asia. The pandemic and global energy crisis worsened progress on this goal (SDG 7), causing 75 million people to lose the ability to pay for electricity access and 100 million for clean cooking solutions. In an ever-warming world, rising demand for cooling is a significant driver for electricity, and clean cooling solutions are critical to meeting this demand while protecting grid stability without adding emissions.

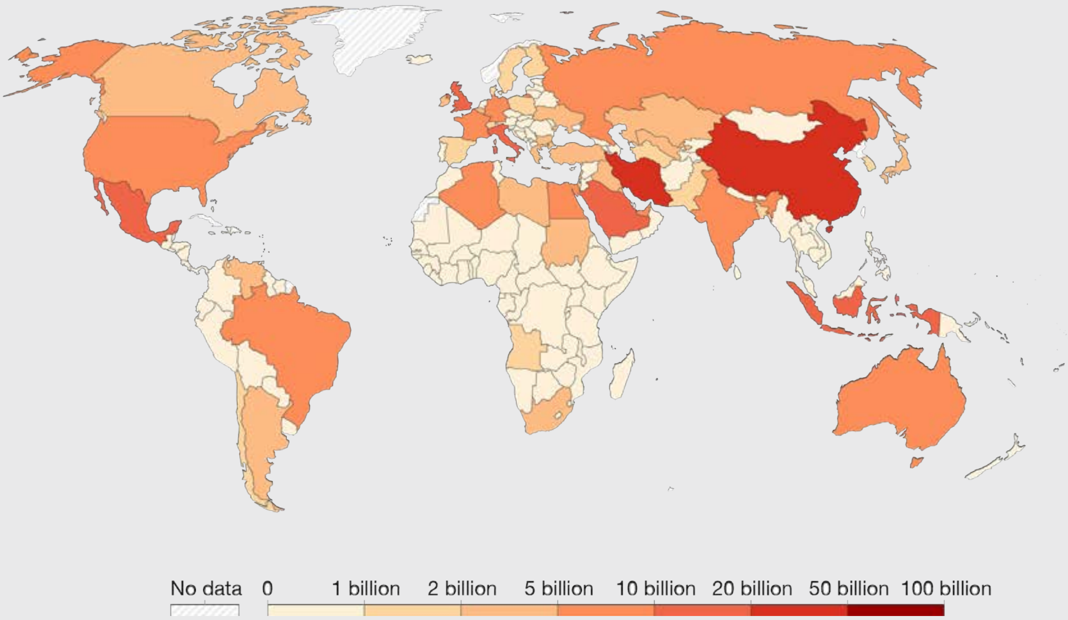
However, more is needed than just increasing investments and reducing costs. The right enabling environments must be created, business models catalyzed, and risk capital deployed to ensure that finance flows at scale, so clean power projects are the cheapest and the most practical option. Investments in grid flexibility will be an essential part of the solutions to help integrate greater amounts of intermittent resources and strengthen energy security.

## From fueling the past to financing the future

An estimated USD 4.3 trillion in annual finance flows are needed by 2030 to meet global climate goals. Phasing out the more than USD 1 trillion in direct

**FIGURE 1:** Fossil-fuel subsidies, 2020

Fossil-fuel pre-tax subsidies measured in millions of nominal US dollars




*Source: International Energy Agency, Organisation for Economic Co-operation and Development and International Monetary Fund via United Nations Global SDG Database. OurWorldInData.org/fossil-fuels*

subsidies and tax breaks for fossil fuel production and consumption can help fill this gap. Rather than using these funds to perpetuate dangerous pollution and growth patterns, it's time for governments to redirect this precious taxpayer capital to turbocharge the clean energy transition.

As an immediate step, some countries are implementing taxes on the windfall profits that many fossil fuel companies enjoyed last year. California's new gas price gouging law gives regulators more insight and control over oil refiners' excess profits. Other influencers, including the UN Secretary-General, are calling for much more widespread use of windfall profit taxes on oil and gas companies.

Other sources of public funds include carbon pricing or emission trading schemes, in place now in 39 countries, representing 23% of global greenhouse gas emissions and raising about USD 95 billion in revenues in 2022. And efforts are underway via the International Maritime Organization to push through a global carbon levy on shipping, a sector that has traditionally been exempted from country climate plans, to raise significant revenue for climate finance.

Philanthropy is helping to accelerate these efforts, and to address the barriers to the clean energy transition. An urgent priority now is to work in partnership with the public and private sectors to catalyze renewable energy investments in emerging and developing economies. Efforts like the Global Energy Alliance for People and Planet (GEAPP) bring together philanthropy, governments, technology, policy, and financing partners, to deploy USD 10 billion for expanded clean energy access over the next decade.

For our part, ClimateWorks Foundation is proud to partner with Bloomberg Philanthropies on the Global Energy Transition initiative. This supports the rapid transformation of the global power sector toward clean energy, beginning with 10 emerging economies across Africa, Asia, and South America.

The urgency to act has never been greater. Fossil fuel subsidies are risky and damaging to the environment, the energy sector, and public finances, with most benefits accruing to the wealthy. It is imperative to end these harmful subsidies and channel scarce public resources toward financing a sustainable future.

This crucial step holds the key to preserving lives both today and tomorrow, meeting the SDGs, and ensuring a safer and more resilient world for future generations. ■

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▲ Using a drone for mapping in the Kamanyola community, Democratic Republic of Congo. It is part of a road construction project that will open up access to the rural communities in the hills above the Ruzizi plain

# Boosting technology transfer to support the SDGs in LDCs

**The world's poorest countries have most to gain from tech like AI that can rapidly accelerate SDG action, but are often the least able to utilize such innovations. We need a global, cooperative effort to ensure that the technical tools and skills that humankind has developed are available to all**

By Ciyong Zou, Deputy to the Director General, and Managing Director, Directorate of Sustainable Technical Cooperation (TCS), United Nations Industrial Development Organization (UNIDO), Marco Kamiya, Chief, Division of Digital Transformation and AI Strategies, UNIDO, and Alla Metelitsa, Senior Advisor (TCS), UNIDO

As Ernest Hemingway famously once said, things go "gradually, then suddenly." Abrupt leaps seem to be the norm with advanced technologies, as recent trends confirm. For Agenda 2030, new, frontier technologies can help to accelerate the Sustainable Development Goals (SDGs). Examples include:

- SDG 2 (zero hunger): optimized agribusiness supply chains, precision agriculture, optimized farm management, automated irrigation, and mobile device-accessible real-time weather forecasting.

- SDG 3 (good health): e-health via remote diagnostics, wearables for health monitoring, DNA sequencing, and augmented reality with adjustment of prostheses.
- SDG 4 (quality education): e-learning such as massive open online courses (MOOCs), augmented reality, gamification and marketing techniques, and remote training or tutorial materials.
- SDG 7 (sustainable energy): optimization of recycling of materials for clean energy systems, and blockchain for energy distribution in micro-grids.
- SDG 8 (decent jobs): e-banking, e-commerce, remote work, and smart manufacturing.

This technological explosion brings with it much optimism. The rapid proliferation of chat tools in the first half of 2023 has accelerated a global sprint to develop human-like chatbot systems. Advances in virtual reality are generating a plethora of new possibilities in education, training, and commerce.

The expected emergence of powerful applications for quantum computers, which already exist but cannot yet be fully utilized, may be a game changer in data processing. The same goes for the rapid evolution of Web3 – the new internet with decentralized applications linked through blockchain architecture – driven by cryptocurrencies (which, though still nascent, may see a rapid increase in use soon).

But there is also alarm. This array of new technologies has prompted cries of caution by civil society, governments, and related stakeholders. UN Secretary-General Antonio Guterres announced in June 2023 his thoughts on supporting a proposal to consider the creation of a new UN agency to monitor artificial intelligence (AI). As the speed and influence of this technology is unpredictable (and probably persistent), a UN body could facilitate global consensus, while also serving as a forum to discuss knowledge, coordination, legal frameworks, and the application of AI.

## Getting back to basics

In this scenario, with new technologies rapidly coming on stream, it is vital to identify a policy space for least developed countries (LDCs). A fundamental question to address is to what degree SDG progress in LDCs is being held back because of scarcity of technology and expertise.

When it comes to productive transformation, LDCs are constrained by several bottlenecks, such as education, managerial capacity, and finance. But the most fundamental constraint is lack of basic infrastructure, since electricity and connectivity are key requirements to adopt and absorb frontier technologies.

The United Nations Conference on Trade and Development calculates that in LDCs, over half of people lack access to electricity, sources of energy, and proper connectivity. The International Telecommunication Union estimates that 75% of people in LDCs are offline. While the International Energy Agency indicates that 55% of people in LDCs have access to electricity, this higher number is far from any consolation. These structural barriers also impose enormous costs on firms that rely on electricity and internet access to do business.

LDCs also face tremendous difficulties with supply chains. These are the logistics – facilities, roads, highways – that convey and convert raw materials into finished products and are later distributed to consumers in local and international markets. Combined with the barriers imposed by power and communication constraints, this can make it extremely difficult to plug in to regional or global value chains.

The international community must urgently address these fundamental issues. We need dialogues between governments, UN agencies, and development banks so that infrastructure is properly deployed where it is most needed. Simultaneously, we must recognize the efforts made by the LDCs, and the further advancement expected under the implementation of the recently adopted Doha Programme of Action for the LDCs. In this context, more than ever, LDCs require support to absorb and apply technologies to avoid suffering from a digital and AI divide.

UNIDO actively supports the implementation of the Doha Programme of Action by working with the LDCs to support inclusive and sustainable industrialization. One of the many cooperation initiatives is in the area of technology. This aims to provide methodologies and toolkits for digitalization, supporting context-oriented studies, and assisting the public sector with policy design.

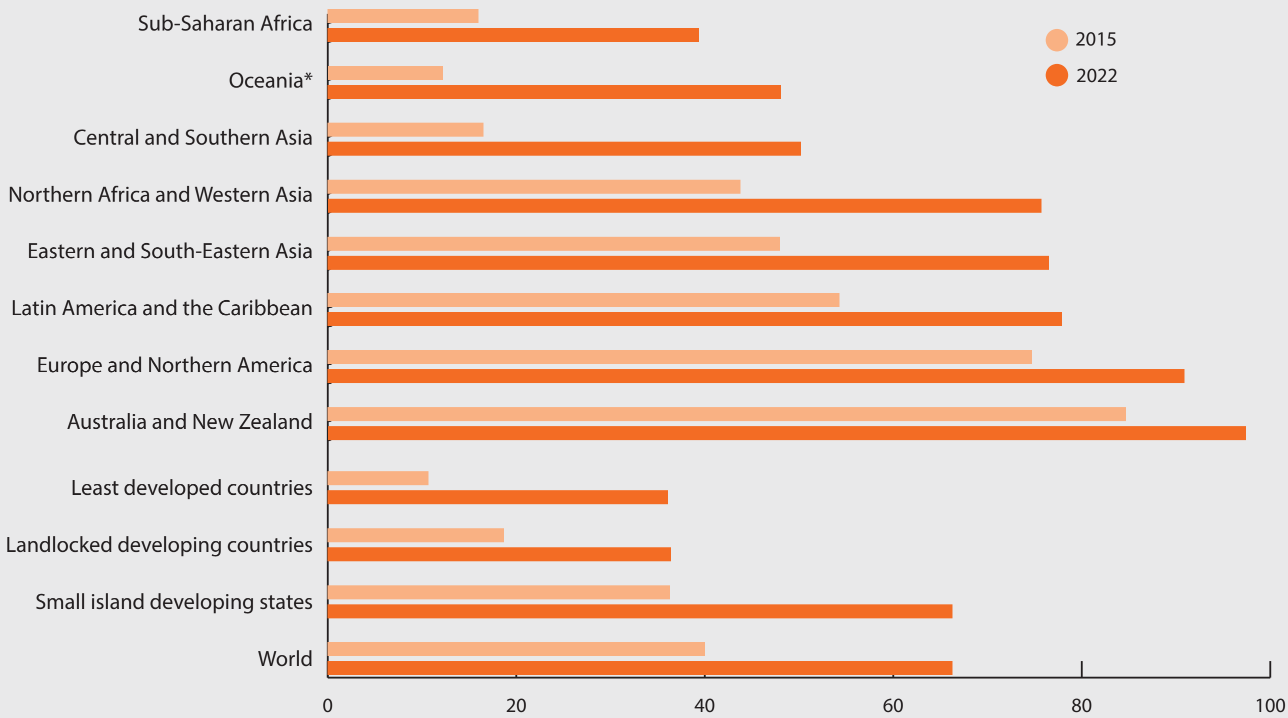
In Propelling LDCs in the Digital Age (produced by UNIDO, the UN Technology Bank, and the Enhanced Integrated Framework for Development for the Fifth UN Conference on the LDCs), the main challenge observed for LDCs is their absorption capacity for new technologies. Encouragingly, companies are already making inroads in technology application, and those technologies can help countries to improve sustainability. At the same time, AI can also serve to improve the availability and efficiency of essential utilities in LDCs, such as electricity, water, and sanitation.

## Transformational potential

Several countries are actively applying AI technology in different sectors:

- In Kenya, M-Shwari provides loans to micro-entrepreneurs and families, using AI to predict how likely potential borrowers are to default.
- In Mexico, firms are developing AI applications to improve the monitoring, treatment, early detection, and prevention of diabetes.
- In Rwanda, drones are being used to deploy pharmaceutical equipment to rural zones.
- In Bangladesh, AI is used in the textile sector to improve garment

**FIGURE 1:** Proportion of individuals using the Internet, 2015 and 2022 (percentage)




* Excluding Australia and New Zealand

Note: Internet access is the indicator used for Target 17.4. The target relates to establishing a UN technology bank – this was established in 2018.

*Source: Sustainable Development Goals Report 2023*

production quality.

- In Morocco, AI is being used to produce more food with less water and fertilizers.
- In Namibia, under a UNIDO project, AI analyzes agricultural land to identify invasive bushes and transform them into food for livestock, while supporting a rural circular economy.

Such examples, covering both LDCs and non-LDCs, could be further replicated or scaled up to other countries and regions.

UNIDO has a network of Investment and Technology Promotion Offices located in Bahrain, Beijing, Bonn, Shanghai, Tokyo, and elsewhere, connecting companies in high-income countries with those in developing countries. The offices support opportunities for partnerships and technology transfer, increasing the technology absorption capacity of firms in LDCs. They also support foreign direct investment, improving the capacity of SMEs.

UNIDO is also launching a Global Alliance on AI as a rotating global forum to provide an international platform for governments and firms to contribute to the potential of AI for productive transformation.

We must also work together to unleash the potential of the digital commons, led by the Office of the Secretary-General's Envoy on Technology. Open source, open data, and digital public goods are vital for building a more equitable world.

We need to cooperate globally to overcome the barriers these technologies face, particularly in the areas of intellectual property rights, patents, and other proprietary issues. UNIDO is supporting this process by working closely with UN agencies and other institutions.

## Action now

Many tasks lie ahead. Let us recall that technologies such as electricity, cars, and mobile phones were not immediately adopted when discovered and their absorption took several decades.

But with innovation and technology like AI that can accelerate transition to a sustainable world, there is no time to wait. Societies must act now to create and update legal frameworks, protect privacy, and contain job displacement. More than ever, LDCs need to avoid the "digital divide" – and, when it comes to productivity, a potential "AI divide." Leveling the field for innovation, investment, and technology transfer is essential. ■

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# The role of bonds in transforming infrastructure for net-zero

**Massive investment is needed in infrastructure to achieve the transition to clean energy and create resilience against the impacts of global warming. The scale of investment – as much as $9 trillion per year – exceeds the capabilities of public finance and will rely on aligning private sector financing. Green or climate bonds seem an obvious instrument for the task – are they the killer solution?**

By Sean Kidney, CEO, Climate Bonds Initiative

The infrastructure of our cities, the transport networks we use to connect them, and the range of goods that we enjoy within them represent a huge expanse of economic activity. Such activity can be categorized by sectors and subsectors, the breadth of which is so enormous it details the extraordinary progress of modern civilization. At the heart of it all, however, lies a common force – finance.

The idea that finance is the "mother sector" or gateway of all sectors is why it can be looked upon as a powerful force for fighting climate change – the challenge of a generation. Huge debt instruments such as bonds, which globally have a market volume of around USD 130 trillion, are responsible for a large part of the financing of our world economy. This activity, in turn, has been increasingly synonymous with climate degradation, particularly since the Industrial Revolution.

◄ Solar power park in Karnataka state, India. Earlier this year, India raised $1 billion from its first sovereign green bond issue

The birth of green bonds therefore marked an innovative way to reverse the relationship between capital outlay and climate disarray. The market, opening in 2007 following the issuance of the first ever green bond by the European Investment Bank, employs a set of principles laid out by the International Capital Markets Association (ICMA) to ensure capital is going to climate-aligned causes.

Around USD 3.2 trillion of green bond volumes have now been raised with the green debt market snowballing to an impressive growth rate of over 50% in the five years between 2017 and the start of 2022. Issuance has since slowed alongside a slump for the global bond market as the macroeconomic landscape has shifted. Though the market remains small relative to the size of the global bond market, it has progressed quickly and will only become more prominent as the years unfold.

## Bonds of varied colors

Nothing less than an overhauling of most of the global economy will be needed over the coming decades. McKinsey & Company estimates that the investment in new infrastructure and systems needed to meet international climate goals could be USD 9.2 trillion annually between now and 2050. Green bonds offer a way of incentivizing and measuring this green investment.

In recognition of the range of things issues that need finance, the green market has been joined by social, sustainability, sustainability-linked, and transition bonds (collectively GSS+), to tackle a range of climate investment challenges and the UN's Sustainable Development Goals. The combined GSS+ issuance hit five trillion in June 2023.

Issuers of these bonds include around 50 national governments and countless corporates including big names such as Apple and Volkswagen. But, as with every story, the reality isn't a clear and courageous march to climate salvation. Rather, it is one of questions, anxiety, and confusion. At the center of the green bond story are:

- questions of whether these instruments really are impactful
- anxiety over greenwashing
- confusion about how these issues can be addressed

## Allaying concerns through standard setting

Greenwashing occurs due to lack of ambition, a lack of transparency, or a combination of the two. A lack of ambition entails proceeds being committed to projects that are not truly green. International targets on climate change, as expressed in the Paris Agreement, represent a consensus on ambition for environmental action – namely, to reach net zero by 2050. Self-labeled green bonds that do not align with these plans can be considered greenwash. To be able to verify the integrity of green bond commitments, issuance must be transparent. Reporting is a key means to achieve this. Overall, greenwashing has been a rarity, as standards and policy have developed to guide the market.

The Climate Bonds Initiative, an international not-for-profit organization that has been influential in the rise of green bonds, has developed a standard on green bonds to combat greenwashing. This Climate Bonds Standard complements the ICMA's Green Bond Principles that guide the structure of green bonds, with further detail on sector activities that align with the Paris Agreement. This provides a common language on green investment, promotes market confidence, and has influenced the development of several national taxonomies – policy regulation enacted to guide countries' green finance markets.

Overall, the market's ambition appears solid. The majority of green issuance is aligned with the Paris Agreement and greenwashing is a minority. Of the USD 3.2 trillion volume of green bonds captured by Climate Bonds Initiative's market intelligence, 75% meets best practice standards.

As for the remaining 25%, the reason for their exclusion was either proceeds not being Paris-aligned, or poor reporting standards that made it difficult to discern whether the issuance was Paris-aligned or not. As the market matures, and taxonomies continue to spread across each nation, it is envisaged that volumes meeting best practice will rise even higher.

## Nurturing green bond growth

The strong investor appetite for green debt proves that investors are looking for climate solutions. Evidence of this appetite appears in pricing: issuances are often oversubscribed and investors pay a premium (so-called greeniums) when purchasing these debt products. Investors are keen on green bonds as they offer more transparency than vanilla equivalents as to what their capital is being used for. Investors are also aware of the global push for net zero, are keen to diversify their portfolios, and know that these assets perform well and hold their value in the secondary market.

Writing now, in 2023, the market still has a long way to go. It has produced standards and principles that act as a shopping list for a green future and has raised trillions in climate capital. However, the journey needs to accelerate its progress as time ticks away on the ever-closing window of opportunity to avert climate catastrophe. The Climate Bonds Initiative is calling for USD 5 trillion in green issuance to be raised annually by 2025.

Governments, finance, and corporates are largely enthusiastic on the green finance movement and are keen to play a part in its development. If we can shift this enthusiasm forward and land at urgency, green finance will find itself credited as a key force for change in the climate fight. ■

# Accelerating climate-just transformations

**Years of delays are being added to climate commitments because of bureaucratic planning processes. We must speed up action in ways that are transparent, equitable, and effective if we're to protect vulnerable communities from the devastating impacts of global warming**

By Flávia Guerra, Senior Researcher, United Nations University – Institute for Environment and Human Security

Climate change poses an urgent threat to humankind and the planet, especially when considering the other interconnected crises of our time. From biodiversity loss to growing inequality, these crises ought to show us that the window of opportunity to secure a sustainable future for all is rapidly closing. Yet, the scale and pace of our own changes are falling short against climate change. How do we catch up?

We must begin by asking ourselves why climate action is so slow.

While climate commitments and targets are expanding, they remain largely sectoral, technocratic, and concentrated in certain world regions. Often, they still lack ambition as well as the support of enabling regulatory policies and financial resources for implementation.

Furthermore, despite the increased availability and cost-effectiveness of climate change mitigation and adaptation options, technological substitution alone is unlikely to counter the continued increase of greenhouse gas emissions and widening development gap globally.

It has become clear that tackling climate change requires systemic, integrated, and inclusive approaches. These must be embedded in broader transformations toward sustainability that lean on the interlinkages across the Sustainable Development Goals (SDGs) and harness the synergies of climate action. Such transformations must happen among political, personal, and practical spheres of action in parallel.

### Political: mainstreaming an inclusive climate agenda across multilevel governance

One clear entry point for transformation is governance reform, especially in low-income countries and cities where the stakes for climate change are particularly high due to limited resources and socio-economic factors. The combination of climate change and high urbanization rates in these areas makes appropriate urban planning and good governance increasingly urgent. Specifically, better coordination across levels of government and agencies, coherent and concerted action across multiple policy domains, and public participation can deliver effective climate action with co-benefits for sustainable urban development.

First, intergovernmental coordination and vertical policy integration can contribute to aligning supranational priorities and local needs while enhancing subnational governments' human, financial, and technical resources and capacities for climate-friendly urban development.

When considering renewable energy infrastructure planning, for example, such coordination mechanisms can avoid significant delays, uncertainties, and conflicts by streamlining approval procedures.

Second, mainstreaming the climate agenda – that is, incorporating mitigation and adaptation plans, policies, and projects into existing city strategies and programs, namely those related to housing, transport, and employment – is not only strategic but can also be more effective. This integration could also help to balance long-term visions or goals and short-term action.

Timely access to accurate and up-to-date climate data, vulnerability assessments, and impact projections is crucial for decision-makers to identify priority areas and allocate resources more efficiently. The role of transnational city networks should not be overlooked as they allow for information and resource exchanges and thus encourage the adoption, implementation, monitoring, and evaluation of local climate plans.

Finally, it is essential that decision-making and planning processes are transparent and inclusive. Stakeholder participation is too often perceived to slow down such processes. Yet, experts find that involving local communities, businesses, NGOs, and experts can lead to more innovative, legitimate, sustainable, and efficient solutions in the long run.

Public participation through the likes of town hall meetings, online platforms, advisory committees, and participatory budgeting promotes accountability from governments and allows them to

▶ A Transfomative Urban Coalitions (TUC) workshop in Naucalpan, Mexico. It is part of a project to explore new governance models that will accelerate climate action

© WRI Mexico

leverage diverse knowledge for socially acceptable and locally appropriate climate action.

## Personal: shifting mindsets to reframe individual and collective climate action

The "leave no one behind" principle of Agenda 2030, the Climate Justice Framework, and just transition discourses share a common idea: meaningful public engagement is not possible without involving economically and socially marginalized communities who have contributed the least but suffer the most from climate change.

Yet, the only way of making climate action a locally driven and locally owned sustainability issue by these vulnerable groups of urban dwellers is to link it to issues of local priority, particularly related to social justice (for example, access to clean water, food, housing, sanitation, energy, and education), rather than seeing mitigation or adaptation as standalone issues.

This requires a collective shift in mindset. We need to fundamentally change the way we perceive and approach climate change, starting with fully embracing systems thinking. Climate change is an interconnected issue that affects various aspects of our society and planet. We need to move from siloed and sectoral approaches to holistic and integrated worldviews that consider the interdependencies of everyone's everyday life and well-being on Earth.

Climate action must thus be understood and implemented in ways that advance progress against all other SDGs, notably those related to affordable and clean energy, sustainable cities and communities, justice, and reduced inequalities.

## Practical: experimenting with more just and zero-carbon cities

Political and personal changes are not easily achieved, and can take time. But that need not be an impediment to accelerate climate action. Various bold and inspiring "seeds" exist. Around 300 international initiatives and campaigns, including Race to Zero and Race to Resilience, are rallying the leadership of non-state actors such as cities and businesses.

Cities and local communities are trailblazers, overcoming national red tape on renewable energy deployment and showcasing truly transformative creativity. Fragmented initiatives must, however, be combined as much as possible to amplify their impact on our collective race against time. Collaboration across stakeholders, sectors, and regions is instrumental to achieve this.

The Transformative Urban Coalitions (TUC) project is striving to do just that. TUC supports cities to develop new strategies for addressing challenges in urban development and social justice while at the same time addressing climate change. The project is coordinated by the United Nations University – Institute for Environment and Human Security and the World Resources Institute, with support from the International Climate Initiative of the German Government.

We aim to improve the inclusiveness, effectiveness, and sustainability of climate governance as well as the range and speed of change. Urban Labs are used as structures for real-life experimentation, sustained and meaningful citizen participation and collaboration, capacity development and sharing, and learning by doing. Project activities build on ongoing local initiatives, including:

- a re-urbanization process of an informal settlement in Buenos Aires
- improvements of social housing programs in Brazil
- ecological restoration in Mexico

The project links these initiatives to climate action to promote new modes of governance and mindset shifts.

TUC Urban Labs empower new agents of change to deliver scalable, innovative approaches for climate-just transformations toward more desirable futures. They have the potential to inspire and guide others, serving as beacons of hope and catalysts for radical change globally. ■

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# Resilience and sustainability through nexus planning

Rapid urbanization is placing unprecedented strain on the life-critical resources of water, energy, and food. We need rapid take-up of coordinated (or “nexus”) approaches to urban development and resource management if we’re to make sustainable cities a reality

◂ Alexandra Township, Johannesburg in Gauteng province, South Africa. Rapid urban growth in the province creates risks of resource insecurity, poor service delivery, and potentially conflict

By Luxon Nhamo, Research Manager, Water Research Commission of South Africa (WRC), Sylvester Mpandeli, Executive Manager, WRC, and Tafadzwanashe Mabhaudhi, Research Group Leader, International Water Management Institute (IWMI)

A major challenge accompanying the growing global population is rapid urbanization and densification. Cities account for less than 2% of the Earth's land area. Yet urban areas consume about 75% of global energy and materials and contribute over 70% of global greenhouse gas emissions.

If left unchecked, rapid urbanization and climate change could contribute to the insecurity of essential resources, posing the risk of exceeding the operating space of planetary boundaries. The challenges are even more pronounced in the developing world, where resource demand often outstrips supply due to the continued influx of people from the countryside or other countries searching for better living conditions.

As a result, cities struggle to provide basic services to the rapidly growing urban population. Often, this results in service delivery protests and social unrest. The projected global population growth to about nine billion people by 2050, of whom 60% will live in urban areas, will only exacerbate these stresses.

Yet, urban areas could provide huge opportunities for economic growth, human development, and climate change adaptation, mitigation, and resilience. To achieve this, we must transition toward systematic and transformative approaches that facilitate cross-sectoral integration, transformation, equity, and inclusion.

Systems approaches, which include nexus planning, just transition, circular economy, one health, horizon scanning, and sustainable food systems, are polycentric and promote balanced and integrated resource management. As such, they could play an important role in transforming urban areas into resilient cities for climate action in the realization of Sustainable Development Goal (SDG) 13, which emphasizes "taking urgent action to combat climate change and its impacts by 2030."

If not managed systematically and holistically, rapid urbanization poses huge human and environmental risks, potentially derailing the progress to achieve sustainable cities by 2030. The challenges associated with rapid urbanization are interlinked and cut across the whole urban ecosystem spectrum. We therefore need smart innovations and strategic interventions to transform urban areas into centers of global climate action.

> ***// Urban areas could provide huge opportunities for economic growth, human development, and climate change adaptation, mitigation, and resilience***

As a transformative and circular approach, nexus planning provides pathways toward urban resilience by facilitating the integration of complex and interlinked urban grand challenges.

## Interlinkages in urban challenges

Urban grand challenges are complex, intricately interconnected, and cross-sectoral, and operate within a similarly complex urban system. At the global level, for example, urban expansion is projected to encroach into protected areas by more than three times by 2030 from the 2000 base area of 450,000 km$^2$.

The encroachment into biodiversity hotspots (areas with high concentrations of endemic species) will quadruple during the same period. In sub-Saharan Africa alone, urban sprawl will encroach into ecological infrastructure by more than 20% during the same period.

Such encroachments result in the extinction of important biodiversity, as humans occupy and disturb natural habitats. This causes human–animal conflict and the emergence of novel, infectious diseases from the wild. Urban sprawl also results in the reduction of agricultural land and degradation of ecological systems, impacting food production and ecosystem services. This, along with worsening water and land pollution, poor waste disposal and sanitation, and increasing industrial and vehicular emissions, is risking human and environmental health.

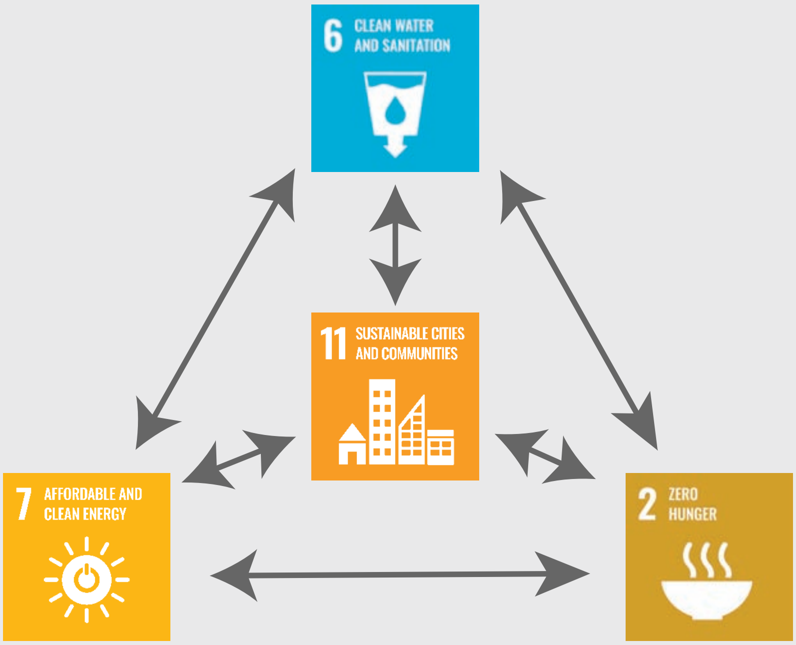
These interlinkages, interconnectedness, and interdependencies of urban systems and their associated challenges are referred to as "urban nexus." This concept is born out of the notion that focusing on one of these challenges without considering the other, equally connected, challenges only exacerbate urban stresses.

This is where circular and transformative approaches come in handy. They can facilitate cross-sectoral assessment and management of the challenges, and even identify priority areas for intervention that lead to the achievement of SDG 11, which commits to "make cities and human settlements inclusive, safe, resilient and sustainable by 2030."

## Systems thinking and the urban nexus concept

The urban nexus concept considers urban services such as energy, water,

**FIGURE 1:** Nexus planning pathways




> ***Operationalizing the urban nexus expedites urban resilience and sustainability. It enhances resource recycling, regeneration, management, and resource security, allowing resources to stay in use for longer, thus linking the concept to the circular economy***

and food and material provisioning, and an integrated and holistic assessment of the overall system. Current linear approaches in urban planning have reached their threshold as they do not address interlinked challenges but only aggravate contemporary urban crises.

Urban nexus planning facilitates the management of trade-offs and synergies in an integrated manner, opening new possibilities for practice. Operationalizing the concept catalyzes the transformational agenda in urban areas and enhances intergenerational sustainability. Such forward planning is long overdue for most cities undergoing unprecedented growth while facing multiple challenges.

An example is the Gauteng city region, an urbanized province of South Africa whose growth poses the risks of resource insecurity, poor service delivery, and conflict in the absence of transformative adaptation strategies.

The concept of urban nexus is therefore indispensable for informing decision-making on strategic policies that guide sustainable urban planning. This is possible through contextualized adaptation frameworks and pathways that enhance urban resilience and adaptation. This supports the findings of the Intergovernmental Panel on Climate Change that identified cities as important centers of global climate action and adaptation.

The urban nexus concept establishes a balanced urban system by promoting circularity.

## Circular models and urban resilience

Operationalizing the urban nexus expedites urban resilience and sustainability. It enhances resource recycling, regeneration, management, and resource security, allowing resources to stay in use for longer, thus linking the concept to the circular economy.

Where circular models are being adopted, they are providing alternatives to overcome uncertainties and offering opportunities to formulate strategic and coherent policies that are transforming urban areas into centers for climate action and resilience.

Urban resilience is the capacity to withstand and absorb the impact of climate extremes or other shocks with minimal damage to infrastructure or loss of human life. Operationalizing the urban nexus facilitates proactive interventions that provide sufficient lead time to prepare for future shocks so that they do not end as disasters. Urban areas are therefore able to withstand shocks with minimum damage. Examples of such cities are Tokyo and Auckland, both of which continue to thrive despite the many devastating earthquakes they are exposed to.

Nexus planning catalyzes urban transformation and promotes resilience-building initiatives toward converting cities into sustainable centers of climate action, resilience, and adaptation. Formulating strategic urban adaptation policies around the urban nexus concept provides sustainability pathways that systematically integrate short, medium, and long-term urban planning, hence promoting intergenerational sustainability. ■

# Growing sustainability leaders

## Origin Green provides a range of services to raise sustainability and climate literacy in the Irish food and drinks sector

By Deirdre Ryan, Director of Quality Assurance and Sustainability, Bord Bia

As Director of Quality Assurance and Sustainability at Bord Bia (the Irish Food Board), I am proud to highlight the critical role our organization plays in advancing sustainability and climate literacy throughout the Irish food and drink industry.

As a member of the United Nations (UN) Global Compact, Bord Bia recognizes and promotes sustainable development in the Irish food and drink industry. Through Origin Green, Ireland's pioneering national food and drink sustainability program, we have prioritized empowering our industry players across the entire supply chain – from farmers to manufacturers, retailers, and foodservice companies – by equipping them with a framework for developing and measuring environmental and social sustainability targets aligned to the Sustainable Development Goals (SDGs).

Importantly, we provide them a comprehensive suite of resources, such as mentorship, guidance, and training to build their sustainability knowledge and upskill their teams.

Sustainability leadership starts from the top, and we have introduced the Leaders Sustainability Acceleration Programme in partnership with Ireland's leading business school, University College Dublin (UCD) Michael Smurfit Graduate Business School, to equip senior executives and board members with the skills and knowledge needed to drive sustainability strategies within their organizations.

### Origin Green Academy

This May, Bord Bia, in partnership with Skillnet Ireland, launched the Origin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The Origin Green Academy provides a suite of tailored support on a one-to-one, sector-specific, and program-level basis

Green Academy, which will support Irish food and drink businesses in developing industry-leading sustainability talent and emissions reduction skills required to achieve ambitious targets across the sector. We are providing a suite of tailored support to Origin Green members on a one-to-one, sector-specific, and program-level basis.

This academy builds upon Origin Green's existing sustainability support, including more than 20 sustainability guidance webinars in partnership with experts, companies, and partner organizations, along with seven in-depth sustainability topic guidance documents and marketing communications and support.

The Origin Green Academy aims to foster new ideas and thinking around the most pressing sustainability-related challenges of today, and we are excited to see the impact it will have on progress across the Irish food and drink industry.

### Nurturing talent

Bord Bia's Origin Green Ambassador Programme, introduced in 2013, drives and nurtures professional sustainability talent. As part of the program, ambassadors complete an internationally recognized master's degree in business sustainability that equips them with the skills and knowledge to make a meaningful impact in the industry. Participants also complete three- and six-month placements working on sustainability projects within leading global organizations to drive collaboration and learnings. Over the past decade, the programme has produced a talented cohort of 80 ambassadors who have become leaders in sustainability

At Bord Bia, we are committed to driving progress in sustainability and climate action in the Irish food and drink industry. We will continue to innovate and develop new programs and supports to advance this goal. ■

**For more information, visit:**
**www.origingreen.ie**

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# Mobilizing business investment for the SDGs

**With just seven years to go, the SDGs remain severely underfunded, as cash-strapped governments worldwide struggle to resource them. Generating more private-sector investment that seizes the huge business potential of the Goals is therefore critical**

By Sanda Ojiambo, Assistant Secretary-General and CEO of the United Nations Global Compact

The world is alarmingly off track to end hunger, poverty, and a host of other unsustainable practices by 2030. Governments have struggled to keep their Sustainable Development Goal (SDG) efforts on course as the pandemic, climate crisis, and surging energy and food prices have gobbled state resources. It's time for the private sector to accelerate its efforts – but what will it take for businesses to close the investment gap?

The SDGs cover many goods, services, and – indeed – responsibilities that to varying degrees are provided by the private sector. In many instances, solving some of the world's greatest challenges has proved to be a powerful force for business innovation – as evidenced by the COVID-19 vaccine, electric vehicles, and drought-resistant crops.

Governments are largely responsible for many SDG-related services such as education and sanitation. Nevertheless, most of their interventions to drive the SDG agenda take the form of legislation and regulation – compelling companies and citizens to treat each other and the environment more responsibly. These are sometimes combined with incentives (such as subsidies to promote the use of non-fossil energy) or contractual agreements (for example, to provide toll roads, river crossings, ports, and railways). The UN Secretary-General's Stimulus plan calls for financial reform and provides a roadmap for broad international mobilization of SDG investments, including at least USD 500 billion a year for affordable, long-term financing for countries in need. It is clear that meeting the SDGs requires government

◀ Children drinking water at a school in Karaikal, southeast India. SDG 6 – clean water and sanitation – has one of the highest investment gaps with an estimated annual need of up to USD 1.1 trillion

and private-sector involvement. The question is how both can work better together for the benefit of all.

## Mind the gap

When the SDGs were adopted by 193 countries in 2015, the cost of solving the world's most pressing economic, social, and environmental problems was estimated at USD 1.4 to 2.5 trillion a year. This was an underestimate.

In July 2022, a group of academics published a study called Investment needs to achieve SDGs: An overview that examined estimates of the costs of achieving some of the main SDGs as a key first step in mobilizing the necessary financial resources. For universal hunger, this was costed at up to USD 300 billion a year, while universal healthcare was priced at USD 200 to 400 billion annually.

The biggest annual investment gaps, meanwhile, were found for:

- climate action (SDG 13) – up to USD 3 trillion
- clean water and sanitation (SDG 6) – up to USD 1.1 trillion

These are enormous numbers, but they are only a fraction of the USD 65 trillion in assets held by global investment portfolios worldwide, according to the International Monetary Fund. Clearly, the investment gap in sustainable development is not caused by a shortage of capital. The challenge is to steer more of this money into the SDGs – and the good news is that this is starting to happen.

## Taking a lead

In many ways the private sector is already taking a strong lead. Bloomberg estimates that one-third of the projected total assets under management will be managed according to sustainable principles by 2025 – a sum that could surpass USD 50 trillion by 2025. Add America's Inflation Reduction Act, which provides USD 500 billion of aid for clean energy investments, and new measures in Europe and elsewhere, and the stage is set for a boom in private-sector investments into two of the costliest SDG challenges: energy and climate change.

That's a strong incentive for businesses to align their investments with the SDGs. To secure the finance they need for growth, companies will have to demonstrate that their activities meet sustainability guidelines.

But many corporate boards have now grasped a deeper truth: that in many industries, ethical behavior is the key to professional and business longevity. There is growing evidence that products and services aligned with the SDGs deliver faster and more sustained growth. Building electric cars – or bicycles – clearly has a brighter future than building coal-fired paddle steamers. Humanitarian initiative is also rewarded. In tight labor markets, companies that promote diversity find it easier to hire good people – and win more customers.

## Profiting from principles

All these factors help explain why more than 18,000 companies around the world, of every size, have joined the United Nations Global Compact and signed up to implement corporate principles that will help us achieve the SDGs. These Ten Principles cover human rights, labor practices, the environment, and the fight against corruption.

Our CFO Coalition for the SDGs builds upon this engagement: chief financial officers of companies capitalized at a combined USD 1.7 trillion have committed to invest more than USD 500 billion toward achieving the SDGs. They have also pledged to develop principles, frameworks, and recommendations to integrate the SDGs in corporate finance and create a market for mainstream SDG investments.

Now, the time has come to take this to the next level. Northern countries are heating up and the reality of global warming is becoming clearer with every passing month. Humankind is embarking upon a vast energy and food-system transition. As we switch from fossil to renewable resources, companies are changing what they do, how they do it, and who they sell to. Corporate money is helping to close the SDG investment gap across many areas.

## Becoming a force for good

It is often tempting to direct investment to the richest markets, rather than those in the Global South with the greatest need, despite their potential for faster, longer growth. By thinking more creatively and looking at every aspect of their business through the SDG framework, however, some vanguard companies are extending their beneficial impacts upon our societies.

Take the food industry as an example. Olam, a Nigerian foods group, has trained more than 430,000 small producers in improved farming practices. American multinational manufacturer Mars has helped small-scale farmers in Indonesia increase cocoa production. And Intel Corporation, an American semiconductor champion, has provided innovative software tools to help smallholders test soil, buy seeds, and connect with markets. These examples – and there are many more – demonstrate the power of companies that take the SDGs to their hearts to benefit those in greatest need, while also benefiting their own businesses.

The SDGs present not only the biggest challenge, but also the biggest business opportunity of our lifetime. Please do your business – and our planet – a favor. Join us, become a force for good in the world and improve the prospects for your own business in the process. Together we can help get the world back on track to achieve the SDGs by 2030 and pass the planet on to our children in a better condition than we received it. ■


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# SDG financing needs an urgent global reboot

**At the mid-point on the way to 2030, SDG financing is under pressure. Reforms of the global finance system, and more targeted financing solutions, are needed to get back on track to meet the Global Goals**

By Isabella Massa, Senior Economist, and Leslie Bermont Díaz, Economist,
United Nations Sustainable Development Solutions Network (SDSN)

◂ Planting mangroves in Timor-Leste. Highly vulnerable countries, such as small island developing states, are often neglected by investors. A recent study by ODI shows that the countries most vulnerable to climate change and natural hazards receive less than the average resilience finance flows. © UNDP Timor-Leste/Yuichi Ishida

The Sustainable Development Goals (SDGs) will help to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. But achieving the SDGs requires significant public and private investment, especially in poor and vulnerable countries. We urgently need an SDG investment plan in areas of critical importance for humanity and the planet (physical infrastructure, human capital, and the environment).

The SDSN's SDG Transformations framework (Sachs et al., 2019) provides a clear, actionable agenda to allocate adequate funding and resources to the SDGs, and to address trade-offs and leverage synergies across them. The SDG Transformations identify six areas where countries need to invest the most to advance on the 2030 Agenda, while building resilience against shocks and crises:

- education and social protection
- health systems
- energy decarbonization and sustainable industry
- sustainable food, land use, and protection of biodiversity and ecosystems
- sustainable urban infrastructure
- universal digital services

## SDG financing is under pressure and unevenly distributed

While substantial financing is required to achieve the SDG Agenda by 2030, the ongoing "Triple C" crisis – COVID-19, climate change, and conflict – is mounting pressure on resources to finance the SDGs. Due to the pandemic, in 2019–20 the total volume of financing for sustainable development flows to developing countries (excluding China) declined by 17%, with government revenue and private capital flows experiencing the sharpest drops (Organisation for Economic Co-operation and Development (OECD), 2022).

Increasingly gloomy contractions are expected in 2022, especially in portfolio flows (50%) and foreign direct investment (FDI, 23%) (OECD, 2022). If not stopped, Russia's war against Ukraine and the worsening of climate change will put financing for sustainable development under additional stress.

Compared with more volatile private capital flows, official development assistance (ODA) is a key countercyclical source of SDG financing, but it remains unevenly distributed across the six SDG Transformations. This poses important challenges for achieving some of the SDGs and maximizing investment synergies across the different Goals.

The OECD's Total Official Support for Sustainable Development (TOSSD) database shows that, overall, official funding resources for sustainable development increased by more than 20% between 2019 and 2020, in response to the pandemic and the recession in developing countries.

Nevertheless, as Figure 1 (overleaf) shows, some key areas of investment for sustainable development still receive much less funding than others. While during the pandemic official funds providers seem to have invested significantly in education (T1) and health (T2), too little emphasis has been put on investments for ensuring sustainable resource use and curbing pollution (T4), for making cities more sustainable (T5), and especially for promoting digitalization (T6). Transformation 3, which refers to investment for climate action (including financing for adaptation and to deal with loss and damage), has also not been a priority of international official assistance.

Another challenge is that financing for sustainable development is often not directed to countries that need it the most, including highly vulnerable countries. Recent SDSN analysis using the Multidimensional Vulnerability Index and the SDG Index shows that reaching the SDGs is more challenging for highly vulnerable countries such as small island developing states, notwithstanding their income level (Massa and Bermont Díaz, 2022; Massa, 2021).

However, these countries are often neglected by investors. A study by the Overseas Development Institute (ODI) shows that countries getting the highest amounts of climate resilience finance are not among the most vulnerable countries to climate change and natural hazards, while the most vulnerable countries receive less than the average resilience finance flows (Wilkinson et al., 2023).

## Closing the SDG financing gap and enhancing SDG investment effectiveness

The "scissors effect" – rising financing needs to achieve sustainable development coupled with decreasing SDG financing resources – has led to a considerable SDG financing gap. According to the OECD (2022), following the outbreak of the COVID-19 pandemic, the SDG financing gap in developing countries has widened by more than 55% to reach USD 3.9 trillion per year.

Three key steps are needed to help policymakers close the SDG financing gap and to guide SDG investment decisions within and across countries in a more effective way.

**1. Urgently provide SDG financing gap measures at a more sectoral level**

Different approaches have been developed to estimate the SDG financing gap at the global or regional level. Yet, these numbers are not directly actionable and often suffer from major data gaps, especially with respect to poor and vulnerable countries.

To make concrete progress on closing the SDG financing gap, policymakers need to know in which specific areas SDG investment is lacking or insufficient. A more granular approach is therefore needed.

The SDSN is working to build a bottom-up approach to estimate the SDG financing gap at the six SDG Transformations level and to assess trade-offs and synergies between SDG investments. The newly created SDG Impact Investment Toolkit is also useful to identify which investment opportunities have the greatest SDG impact potential.

**2. Adapt SDG financing flows and instruments to country-specific needs**

Although various mechanisms are currently used to finance the SDGs, a more strategic and tailored approach is needed to ensure that financing solutions address country-specific needs. While ODA could support countries characterized by high economic and developmental vulnerabilities in achieving the SDGs, other financing tools such as insurance mechanisms and compensation funds could be more useful in economies highly exposed to the adverse consequences of climate change.

In vulnerable countries crippled by heavy debt burdens, debt swaps (such as debt-for-climate swaps) could be used to restructure the growing debt and free up resources for the SDGs.

**3. Reform the global finance system to enhance access to concessional finance and to allow more sovereign borrowing on international capital markets**

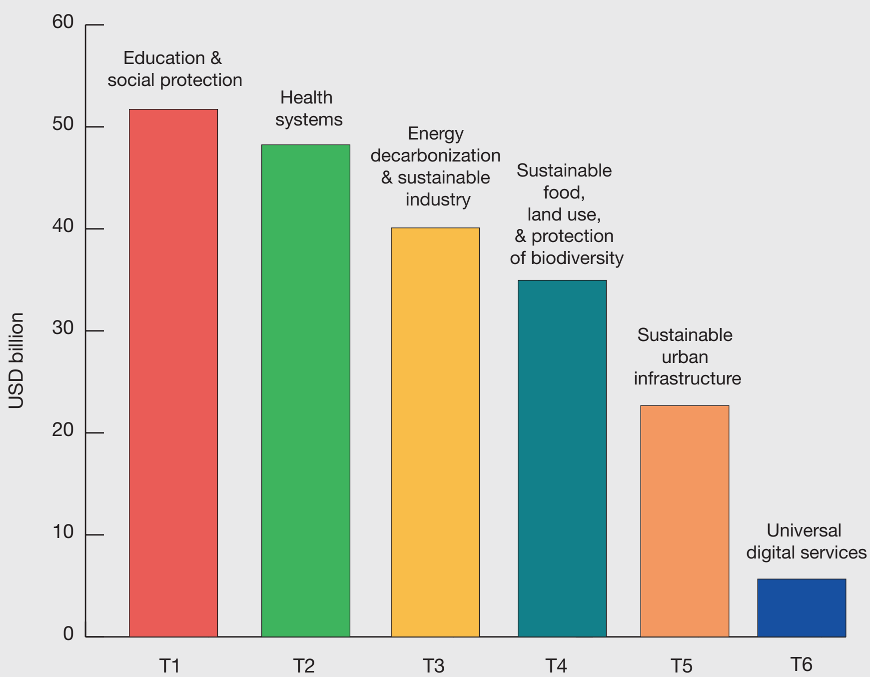
Multilateral development banks represent one of the main sources of finance for the SDGs. Yet, many vulnerable countries cannot access concessional finance because of their relatively high income levels. To allow these countries to progress towards the achievement of the SDGs, we must urgently revise the criteria of access to concessional finance by integrating a measure of vulnerability.

The credit rating system should also be reformed. Nowadays, international rating agencies do not provide an investment grade rating to low-income and vulnerable countries, which can only borrow on shorter terms and at excessively high interest rates.

Reforms to the credit rating system should be undertaken to recognize the long-term growth potential of developing and vulnerable countries.

Only in this way will these countries be able to benefit from innovative financing tools such as SDG bonds, which have already been successfully used by other developing economies such as Benin (see the Benin Sustainable Development Report 2022) to accelerate the implementation of the 2030 Agenda. ■

## FIGURE 1:
Global TOSSD amounts disbursed across the six SDG Transformations in 2021 (USD billion)




Note: TOSSD amounts that were not classified into the six Transformations represented more than USD 191 billion in 2021.

*Source: Authors' elaboration based on the OECD TOSSD database*

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# Strategic trade and subsidy policies to curb deforestation

**The EU's unilateral approach to curb deforestation through restrictions on imports sends a powerful message, but will it deliver? Here, the authors argue that successful global action on deforestation calls for a carefully balanced system of tariffs and subsidies from a wider coalition of countries**

By Etienne Berthet, PhD student, Department of Environmental and Resource Engineering, Section for Quantitative Sustainability Assessment, Technical University of Denmark (DTU); Phoebe Koundouri, Professor, Athens University of Economics and Business, and Professor, Department of Technology Management and Economics, DTU; and Conrad Landis, Research Fellow, Athens University of Economics and Business

In the context of the European Green Deal, the European Parliament reached a provisional political agreement on deforestation, ensuring that a list of selected agricultural and forestry goods entering the EU market "will no longer contribute to deforestation and forest degradation in the EU and elsewhere in the world."

The EU has chosen a unilateral approach to curtail the conversion of forest zones into farm-lands producing agricultural commodities consumed in Europe by expanding the currently established due diligence guidelines. This strategy emphasizes the

▲ Harvesting sago or 'pangkur' on the banks of the Tuba river in Maluku province, Indonesia. Placing a value on ecosystem services is a core challenge for creating a tariff-subsidies system to combat deforestation responsibility of European operators, in conjunction with exporters and traders, that aim to retail or dispatch their products within or from the EU.

This EU provisional agreement sends a powerful political message, highlighting the urgent need to address global deforestation. However, the regulatory approach chosen by the EU is not the most straightforward to implement.

First, the global supply chains embodying agricultural commodities produced from deforestation are a complex network, where the items usually undergo different transformations in several countries. These complex interconnections and wide-ranging indirect impacts before reaching the EU market, combined with the lack of enforcement of local legislation, make it challenging to ensure that products linked to deforestation are effectively kept out of the EU market.

Key deforestation countries have also expressed their concerns about the EU's unilateral approach, arguing that this may disrupt trade, deter investment, and negatively affect their economic welfare. Such effects can provoke resistance to economic openness, especially if they are deemed to stem from inequitable foreign policies.

Last, a particular focus on Brazil (a key country in the fight against deforestation) underlines that with such a unilateral approach, lacking proactive engagement from other major consumer markets, the EU provisional agreement may have only a marginal effect on reducing Brazilian deforestation (representing less than 4% of the yearly agriculture-driven Brazilian deforestation).

The effects on other key deforestation players remain to be evaluated more specifically. However, regarding Brazil's central role in deforestation, while the proposal represents a well-intentioned effort to reduce the EU's overseas deforestation footprint, its effectiveness in curbing global deforestation may remain limited. Considering this, exploring alternative approaches and offering more effective strategies to explore other scenarios becomes imperative.

## Tariffs and subsidies: a delicate balance

One of these approaches relies on trade and involves the formation of a coalition of countries imposing tariffs to limit deforestation. This idea draws from the Climate Clubs theory, where a coalition of countries cooperate to achieve shared objectives, maximizing their welfare and penalizing non-compliant countries with tariffs.

As mentioned by Fusacchia et al. in The Forest Content of Global Supply Chains: Which Policy Mitigation Options?, the EU could convince an international group of countries committed to mitigating deforestation but not directly involved in the deforestation process.

As such, in a working scenario, they would agree on a tariff system imposed on goods produced in regions with high deforestation rates. They would then channel financial resources to enhance productivity in agriculture production in countries where forest resources are relevant.

This would alleviate several problems, including the amount of finance from high-income countries to low and middle-income countries to limit deforestation without compromising economic growth goals. Last, the efficient use of those financial resources by the countries where deforestation happens could be done via different subsidy mechanisms.

The delicate task of calibrating tariff levels poses a significant challenge, necessitating forming an international consensus among the coalition's constituents. This becomes particularly complex given different nations' divergent economic and environmental agendas and calls for a nuanced understanding of the potential impacts.

However, the solution space becomes relatively confined once all parameters are defined, reflecting the characteristics of the trade coalition. On the other hand, the task of redirecting tariff revenue to deforestation-contributing nations through various subsidy mechanisms is daunting. Ill-conceived subsidies, inducing economic distortions, may hinder the growth of nascent sustainable industries, particularly in lower or middle-income regions.

Conversely, well-orchestrated subsidies might serve as a more effective countermeasure than strategies that focus on trade restrictions. Accurate quantification of subsidy amounts is also critical to striking an appropriate balance between trade and subsidies. Beyond their ineffectiveness in correcting market failures, distortionary subsidies can redirect trade and investment flows, undermining the worth of tariff commitments and other market access agreements.

A central query emerges: how to determine the equilibrium between tariffs and subsidies required to effectively mitigate deforestation in countries where deforestation is prevalent without compromising those countries' welfare? This involves juxtaposing the societal costs of potential tariffs on agricultural commodity exports with the value of preserving expansive forest areas.

The potential impact on the livelihoods of thousands working within the agricultural sector further complicates the situation. Moreover, the comparative ecological worth of a mature tropical forest against a recently cultivated one adds an additional layer to this multifaceted dilemma. These considerations underscore the intricate mesh of economic and environmental variables that require meticulous evaluation to balance the diversity of stakeholders and outcomes.

## Pricing ecosystem services

These parameters are intricately varied and complex, making the exact societal cost computation seemingly insurmountable. Evaluating ecosystem services can bring a solution. Ecosystem services are the direct and indirect contributions of ecosystems to human well-being.

These services range from provisioning services like timber and non-timber forest products, regulating services such as carbon sequestration and climate regulation, to cultural services that include spiritual and recreational benefits. Valuation of these services provides a quantitative measure of the benefits humans derive from ecosystems, thereby making explicit the implicit value of these services. This enables incorporating these values into decision-making processes, promoting more sustainable land-use choices.

## The cost of spillovers

In addition to those direct and indirect costs of deforestation accounted for by the valuation of ecosystem services, there are also consequential impacts on the environment that arise from physical spillover effects. As such, one potential consequence of channeling financial resources to enhance productivity in agriculture production in countries where significant deforestation happens is to intensify agricultural practices.

However, this switch from extensive to intensive agriculture could lead to further negative environmental impacts. In the case of Brazil, intensified agriculture could lead to increased use of nitrogenous

> ***When forests are destroyed for timber or to make way for agriculture, the immediate financial gain often overshadows the ecosystems' long-term benefits, including biodiversity conservation, carbon storage, water filtration, and soil conservation***

fertilizers, leading to higher nitrogen emissions. Water and wind could then carry these emissions to neighboring countries, triggering eutrophication in those regions. Eutrophication, primarily due to excess nutrients such as nitrogen and phosphorus entering water bodies from agricultural run-off, leads to harmful algal blooms and oxygen depletion, disrupting marine ecosystems and biodiversity.

This potential domino effect underscores the importance of considering those indirect physical spillover effects in the evaluation of societal costs of deforestation. By combining these with spatially explicit Life Cycle Impact Assessment models, we can track the path of nitrogen emissions from their source to their impact locations.

Including such physical spillover effects in the cost evaluation helps create a comprehensive picture of the impacts of deforestation. It also helps avoid problem-shifting, where mitigation efforts in one area lead to environmental challenges in another. It facilitates the creation of policies that curb deforestation and guard against the displacement of environmental impacts.

Last, this is also an argument for using subsidies, as well-tailored subsidies can promote sustainable practices in particular industries.

Determining the optimal tariffs and subsidies mechanisms involves translating the value of ecosystem services lost due to deforestation (or, conversely, saved) into monetary terms. When forests are destroyed for timber or to make way for agriculture, the immediate financial gain often overshadows the ecosystems' long-term benefits. These benefits include biodiversity conservation, carbon storage, water filtration, and soil conservation. They also extend to cultural and spiritual benefits, the value of which is often challenging to quantify but undeniably crucial.

In summary, by leveraging the valuation of ecosystem services as a tool for calculating the societal costs of deforestation, we can design tariffs and subsidies that account for these costs, promote sustainable practices, and encourage countries to join a coalition dedicated to forest conservation.

## Conclusion

Ecosystems and pollution do not heed human borders, and environmental sustainability strategies must integrate this interconnected reality. Accounting for trade spillovers and physical spillovers between systems ensures the preservation of global ecosystem resilience and the sustainability of human societies interwoven with them. Addressing those multifaceted economic, environmental, and social impacts necessitates a holistic framework.

The UN's Sustainable Development Goals (SDGs) provide this platform, as the SDGs offer a universally applicable approach to map this interconnected network. Addressing deforestation impacts multiple SDGs, including SDG 13 (climate action), SDG 15 (life on land), and SDG 12 (responsible consumption and production). Other impacted Global Goals include SDG 8 (decent work and economic growth) due to the number of jobs potentially affected, and SDG 14 (life below water) due to the potential eutrophication impacts detailed above.

Fostering a sustainable future demands policy decisions underpinned by comprehensive cognizance of the environmental implications of economic activities. By accounting for both the direct and indirect impacts expressed in the SDGs framework and determining their monetary costs through the evaluation of ecosystem services, it is possible to reach a better-rounded policy measure reflecting deforestation's true societal and environmental costs. ■

# Tax that supports sustainable development

## For most countries, public finance, raised through tax, should be the primary source of investment in the SDGs. How can developing countries increase their tax receipts, fairly and efficiently?

By Mary Baine, Deputy Executive Secretary & Head Member Services/DRM, African Tax Administration Forum

The UN's 17 interlinked Sustainable Development Goals (SDGs) have become a "blueprint to attain peace and prosperity for people and the planet, now and into the future." Together, they underpin the global population's survival.

The SDGs recognize, among other things, that ending poverty must go hand in hand with strategies that improve health and education, reduce inequality, and spur economic growth. These objectives all require funds from different sources – tax being one of the most sustainable.

The SDGs and Africa's development Agenda 2063 both view tax as a key enabler of their attainment. Robust tax policy and its effective administration will therefore determine the success of both agendas. This article uses the African tax landscape to illustrate this.

Comparing a country's distribution of income before and after tax is deducted determines how much taxation redistributes resources among that nation's citizens. Among higher-income economies, taxation is an effective mechanism for improving income equality. One OECD study of 35 of its member nations showed that taxes reduced income inequality by a third on average.

Nations with the lowest after-tax inequality are those that achieve the greatest redistribution through taxes and transfers. Fiscal policies have the power to increase resource mobilization, lessen inequality, and encourage sustainable patterns of consumption and production – both critical for sustainable development.

For example, a 2022 study by the African Tax Administration Forum (ATAF) on tax and gender found that tax regimes in Africa to some extent discriminate against women, while countries with "tax policies that provide incentives for women-owned businesses enhance entrepreneurship and economic growth for women and the poor."

### The tax challenges in Africa

Average tax collection in high-income countries is around 40% of gross domestic product (GDP). In contrast, low-income countries typically collect only between 10% and 20% of GDP.

This is due to myriad challenges, such as businesses engaging in tax avoidance and planning initiatives that go undetected by revenue agencies. Further, many efficiency reforms are IT-based, requiring infrastructure support that may be outside the purview or budgetary capacity of the revenue administration. Finally, physical presence in a particular nation is no longer necessary for conducting business in today's "global village."

This continues to pose challenges in determining tax points, and who should collect the tax. Effective tax reforms must address all of these factors to improve domestic revenue mobilization (DRM).

Despite these challenges, African countries are implementing reforms to improve tax administration and


▲ Sapelli wood being cut near Lieki, Democratic Republic of the Congo. Timber and other natural resources, in particular mining products, are commonly exploited as means to siphon money out of African countries

expand the tax base through robust tax policy changes, with support from organisations like ATAF. Examples include:

- legislative reforms to address transfer pricing
- taxation of high-net-worth individuals
- introduction of digital services taxes
- reviewing tax rate regimes to optimal levels
- investment in technologies and training programs for officials

Indeed, ATAF consistently provides support in legislative changes and transfer pricing audits in different specialized sectors. This has led to revenue assessments worth USD 3.8 billion and collections worth USD 1.4 billion in the last 5 years. Importantly, toolkits are developed to become references for countries.

## Equity and fairness?

The principle of equity and fairness requires that citizens contribute to government coffers according to their ability to pay. Taxes should be paid in a way that is equitable for all concerned. The impact of direct taxes on reducing inequality is usually larger than that of

> *IFFs seriously jeopardize efforts to mobilize domestic resources in many developing economies. In addition to the negative impact on tax collections, IFFs erode public trust in the fairness of the tax system*

indirect taxes. The latter frequently lead to greater inequality, since they are paid by all without exception, including the needy.

For example, in African countries VAT contributes the highest revenue according to the ATAF's African Tax Outlook 2021. But it does not achieve vertical equity, since the same rate is applicable for both rich and poor. This lack of equity and fairness may arise from the fact that:

- a significant portion of economic activity in many African countries occurs in the informal economy, which is difficult to tax; thus the burden of taxation falls disproportionately on formal sector workers and businesses
- the tax base is narrow, meaning that only a proportion of the population pays taxes, leading to higher tax rates for those who pay
- many African countries offer tax exemptions and incentives to attract investment, but these can be regressive if they benefit only wealthy individuals and businesses – if not monitored, they may lead to a double loss as their intended purpose isn't necessarily achieved
- wealthy individuals and businesses may be able to avoid paying taxes by bribing tax officials, while the poor may have to pay bribes simply to access basic public services

## Stemming illicit financial flows (IFFs)

Tax incentives play a major role in African tax policy. They are used often for luring investment, particularly foreign investment, into a variety of economic sectors, such as mining, tourism, manufacturing, and agriculture.

Limiting tax incentives to foreign investment is ineffective and counterproductive because it disadvantages local businesses and leaves room for illicit financial flows (IFFs). As noted by Patrick Ofori, IFFs occur when local businesses restructure as foreign businesses or channel their investments through foreign companies to qualify for incentives.

IFFs seriously jeopardize efforts to mobilize domestic resources in many developing economies. In addition to the negative impact on tax collections, IFFs erode public trust in the fairness of the tax system. The United Nations Economic Commission for Africa's 2015 High Level Panel report asserted that the estimated IFFs out of Africa of USD 50 billion surpassed the global foreign direct investment received by the continent, which at the time was USD 44 billion.

The European Commission has also estimated that mining and extractive companies are responsible for 65% of revenue loss in Africa, through complex mechanisms such as tax avoidance, tax evasion, and transfer pricing. The implication, put plainly, is that the continent has revenue generation potential and can contribute to its own development without overreliance on aid.

A recent study by the Organisation for Economic Co-operation and Development and the South African Revenue Service revealed that between USD 3.5 and 5 billion in IFFs are estimated to leave South Africa annually, showing that IFFs continue to pose a serious concern for the nation. This position, which is based on estimates of between USD 40 billion and 54 billion in hidden South African assets held in international financial centers in 2018, represents roughly 10% to 15% of South Africa's yearly GDP.

African governments cite concerns due to the effects of IFFs on revenue, and some still lack legislation and guidelines to address these, although ATAF continues to provide support to address this.

African governments also often lack adequate tax expertise and robust contract negotiation, especially in a digitalized world. Therefore, equitable taxing rights, robust policy, expertise, strong institutions, and adequately resourcing relevant institutions with necessary human and financial resources – while tackling IFFs through a whole-of-government approach – are key to effective taxation.

For instance, when corporate tax avoidance is pursued in many African countries, the route is usually long and costly and often ends up in mutually agreed settlements that may not maximize benefits for African countries. This is why the African Union's strategy on fighting tax-related IFFs highlights a range of actions as being critical to DRM, including:

- reviewing legislation
- building capacity in dealing with cross-border transactions
- promoting transparency
- addressing trade mispricing
- supporting inter-agency co-operation
- promoting South–South tax co-operation

The pursuit of sustainable development depends on the effective mobilization of domestic resources. This will require policies that promote inclusive and sustainable development. The financing of development is significantly influenced by tax and fiscal policy. This must be everyone's focus, since equitable and sustainable tax will determine the attainment of these global development goals. ■

# About SDSN

## The UN Sustainable Development Solutions Network promotes integrated approaches to implement the SDGs and the Paris Agreement on Climate Change, through education, research, policy analysis, and global cooperation


The UN Sustainable Development Solutions Network (SDSN) was set up in 2012 under the auspices of the UN Secretary-General. SDSN has created a global networks program: a membership-based alliance of top-tier knowledge-generating institutions focused on sustainable development, organized in national and regional clusters. As of 2023, SDSN has over 1,800 members in 55 networks across more than 145 countries.

In 2016, the SDSN expanded its mission with the creation of the SDG Academy. The SDG Academy creates and curates free, open educational resources on sustainable development and offers them as a global public good.

SDSN is guided by a Leadership Council, which brings together global sustainable development leaders from all regions and all sectors, including civil society, public, and private sectors. The Leadership Council acts as the board of SDSN.

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With commitments to the SDGs made by nation states, universities, private business, and civil society, SDSN's research and policy analysis work is helping promote solutions to realize the goals. SDSN synthesizes knowledge for sustainable development through our work on SDG pathways, data, policies, and financing.

SDSN is the producer of the renowned Sustainable Development Report and World Happiness Report.
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