

Climate Change,
Sustainable Energy
and the Environment



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Converging with the socio-economic impacts of COVID-19 are the existing threats posed by climate change and ecological fragility – a crisis that also represents a growing source of social vulnerability. The Arab region is the world's most water-scarce and food-import-dependent, and has emerged as a global climate hotspot with temperatures rising faster than the world average. These trends compound the social vulnerability of communities created as a result of the present economic crisis.

An increasingly hostile climate, rapidly declining levels of water security, growing challenges in energy access and reduced capacities for waste management all pose serious risks to the most important aspects of recovery noted in earlier chapters of this report. These convergent crises call for integrated solutions that may serve to de-risk recovery efforts. Integrating environmental solutions into national crisis response plans and investments will help manage risks, build resilience in crisis-affected communities and advance equally resilient forms of recovery.¹ This can build on the successes achieved by countries across the region in mainstreaming environmental sustainability into recovery from conflict and displacement over the past decade, as well as on the progress achieved under SDG 6 on water, 7 on energy, 12 on sustainable consumption and production, 13 on climate change and 15 on land and biodiversity.²

In addition to making recovery efforts resilient, the crisis can also serve as an opportunity to rethink the role of the environment in development policies and paradigms, with an orientation towards risk-informed development pathways. The unsustainable use of the environment is among the root causes of the current crisis globally. Recent years have seen a surge of zoonotic outbreaks from animals to humans, with the former being pushed into closer contact with humanity as habitat destruction accelerates.³ COVID-19, Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) all hold important lessons on ways that ecosystem decline has led to more frequent and severe pandemic outbreaks.

Below, we review three key aspects of this challenge: (i) converging risks from climate change – particularly for the poor – and ways climate action can generate co-benefits for community resilience and recovery efforts; (ii) implications of the crisis for the region's goal of becoming a sustainable energy economy and ways solar solutions can be harnessed to achieve economic recovery and energy security for poor and affected communities; and (iii) risks from a lack of capacities in water, waste and ecosystem management and ways that more sustainable use of natural assets can reduce future risks and build resilience.

1 United Nations Development Programme (UNDP), *Global Institutions Unite Around Key Actions for Green and Fair COVID Recovery*, 5 June 2020 (<https://www.undp.org/content/undp/en/home/news-centre/news/2020/global-institutions-unite-around-key-actions-for-green-and-fair-.html>); Organization for Economic Cooperation and Development (OECD), *Building Back Better: A Sustainable, Resilient Recovery after COVID-19*, OECD, Paris, 2020.

2 UNDP, *Transformation towards Sustainable and Resilient Societies – Ecosystem Resilience for SDG Achievement and Human Security in the Arab Region*, UNDP Regional Hub for Arab States, 2018. See also: UNDP, *SDG Achievement in Crisis Contexts: Climate Change, Energy and Nature-Based Solutions for Conflict Affected Communities in the Arab Region*, UNDP Regional Hub for Arab States, 2019.

3 United Nations Environment Programme (UNEP), *Zoonotic Diseases*, UNEP Factsheet, Nairobi, 2020.

Climate change

Climate change poses one of the greatest threats to development in the Arab region and will undermine the process of achieving economic recovery in the wake of COVID-19.⁴ Social distancing has led to reduced levels of mobility and travel, and therefore to an expected eight percent reduction in carbon emissions globally in 2020. This will be six times larger than the emission reductions seen in 2009 after the last major global economic crisis.⁵ However, this emissions reduction is expected to be temporary, with only a modest impact on future climate risks. This is because the years leading up to the pandemic have seen an acceleration of emissions, with record levels recorded in 2018 and 2019.⁶ The atmosphere now holds more carbon than at any time in the past three million years.⁷ Thus, in spite of a temporary drop in emissions, climate risks and impacts are expected to accelerate, with 2020 likely to be one of the warmest years in recorded history.⁸

This holds special importance for the Arab region, which is already a global climate risk hotspot. Temperatures in the region are rising faster than the world average, threatening to further reduce renewable water resources by 20 percent by 2030,⁹ with millions at further risk from climate-induced displacement.¹⁰ Temperatures in the region are expected to increase by up to 5°C by 2100.¹¹ While climate change will continue to accelerate, it has already had devastating

consequences across the region. The 2008–2009 economic crisis, for example, converged with accelerating climate impacts and resource insecurity, occurring during one of the worst drought cycles experienced in the Arab region in almost a thousand years.¹² This combination of economic and climate crises generated unprecedented levels of social vulnerability and exacerbated the various sources of instability that emerged in subsequent years.¹³

As impacts and risks converge, special challenges exist for poor and displaced communities in MICs, LDCs and crisis contexts, for whom the economic and climate crises pose an existential threat to lives and livelihoods. Already in 2020, many communities face mounting economic pressures alongside the emergence of climate disasters and the unprecedented spread of locusts – itself driven in part by climate change.¹⁴ In crisis contexts, communities suffer displacement from both climate and conflict, leading to a growing awareness in the region of climate change as a threat to peace and security.¹⁵ The current pandemic and consequent economic crisis must not, therefore, serve to distract decision-makers from these converging threats. The coming years will continue to test the capacity of communities to cope with these convergent threats, with a growing need to address multi-dimensional risk within the process of socio-economic recovery from the pandemic.¹⁶

- 4 Carly Phillips Astrid Caldas, Rachel Cleetus, et al., *Compound Climate Risks in the COVID-19 Pandemic*, Nature Climate Change, 2020 (<https://doi.org/10.1038/s41558-020-0804-2>).
- 5 International Energy Agency (IEA), *Global Energy Review 2020*, IEA, Paris, 2020.
- 6 See: Pierre Friedlingstein, et al., *Global Carbon Budget 2019*, Earth Systems Science Data, Volume 11, Issue 4, 2019, pp. 1783–1838. See also: United Nations Environment Programme (UNEP), *Emissions Gap Report 2019*, UNEP, Nairobi, 2019.
- 7 Yale Environment 360, *CO2 Levels Hit Highest Level in 3 Million Years*, E360 Digest, 14 May 2019, Yale University, New Haven, CT (<https://e360.yale.edu/digest/co2-concentrations-hit-highest-levels-in-3-million-years>).
- 8 United Nations, *May confirmed as warmest on record, CO2 levels hit new record despite COVID economic slowdown*, 5 June 2020, UN, New York (<https://news.un.org/en/story/2020/06/1065732>). See also: Thomas Frank, 2020 on Track to Rank in the Top 5 Hottest Years on Record, Scientific American, E&E News, 18 April 2020 (<https://www.scientificamerican.com/article/2020-on-track-to-rank-in-the-top-5-hottest-years-on-record/>).
- 9 Economic and Social Commission for West Asia (ESCWA), *Arab Sustainable Development Report*, ESCWA, Beirut, 2020, p. 168.
- 10 UNDP, *Climate Change Adaptation in Arab States: Best Practices and Lessons Learned*, UNDP, New York, 2018.
- 11 ESCWA, *Arab Sustainable Development Report*, ESCWA, Beirut, 2020, p. 171. See also ESCWA, *Arab Climate Change Assessment Report*, ESCWA, Beirut, 2017.
- 12 Benjamin Cooke, et al., *Spatiotemporal drought variability in the Mediterranean over the last 900 years*, JGR Atmospheres, Volume 121, Issue 5, 2016, pp. 2060–2074, Wiley Publishers.
- 13 Kishan Khoday, *Sustainable Development as Freedom: Climate Change, Environment and the Arab Uprisings*, Background Paper for the Arab Development Challenges Report, UNDP Regional Center for Arab States, Cairo, 2013.
- 14 Nelson Mandelo Ogema and Fiona Broom, *Famine risk for millions in second locust wave*, 28 May 2020, SciDev.net (<https://phys.org/news/2020-05-famine-millions-locust.html>).
- 15 Jamal Saghir, *Climate Change and Conflicts in the Middle East and North Africa*, Working Paper, American University in Beirut, 2020; Dan Smith and Florian Krampe, “Climate Related Security Risks in the Middle East”, in *Routledge Handbook on Middle East Security*, Routledge, UK, 2019. Dan Smith, Malin Mobjörk, Florian Krampe and Karolina Eklöv, *Climate Security*, Clingendael Institute, Hague. See also Kishan Khoday, *Climate Change, Peace and Security*, 31 October, 2019, UNDP New York (<https://medium.com/@UNDPArabStates/climate-change-peace-and-security-f5a290b6d28c>).
- 16 See: Mara Bieler, Sanya Bischoff and Oliver Melches, *COVID-19: How to Integrate Crisis Management with Transformative Climate and Sustainability Action*, GIZ, Bonn, 2020.

In this regard, a number of policy responses are emerging across the region that should be reviewed from the perspective of ensuring climate resilience. At the forefront are the packages of fiscal stimulus measures being developed and put in place by national governments,¹⁷ which for the most part are being formulated without consideration of long-term climate risks, despite the fact that these sectors are the most vulnerable to climate change and related disasters. Key tools used within these stimulus packages – such as preferential loans, public grants and tax discounts to companies – can be mobilized to address both economic and climate crises in an integrated manner.

Policy recommendations

An opportunity exists to integrate climate adaptation into the recovery of key economic sectors as a means of building back better and ensuring results are able to withstand future climate shocks – especially with more frequent and severe droughts, floods and storms expected in coming years.¹⁸ Climate solutions should be mainstreamed into new capital injection and fiscal stimulus measures to support the recovery of MSMEs and key climate-vulnerable sectors at the centre of economic recovery goals such as agriculture, tourism and infrastructure. For example, measures such as preferential loans and tax discounts can be directed to support stronger performance on climate adaptation in vulnerable sectors, while new capital injections into banks can be conditioned on expansion of climate-resilient lending practices. Innovative solutions can also be applied to the challenge of mounting debt, with ‘debt-for-climate swap’ models standing as a means to offset debt repayments with domestic investments into climate resilient economic recovery. Unless climate adaptation is integrated from the outset, climate change will jeopardize long-term results under these recovery investments.

At the institutional level, an opportunity exists during the recovery process to advance new institutional mechanisms to better manage multi-dimensional risk

across economic, climate and other forms of crisis in the region. Important efforts can be made in this regard to link crisis response mechanisms with new policies and financial instruments affiliated to the Paris Agreement.¹⁹ Nationally Determined Contributions (NDCs) under the Paris Agreement serve as national climate plans, setting a vision for scaled-up investments to achieve both global climate goals and fulfil local social and economic needs.²⁰ A need exists to connect crisis response mechanisms with climate policy coordination and decision-making processes as platforms to align foreign investment and private climate investments with socio-economic recovery goals.²¹

As countries explore ways to mainstream climate resilience into recovery efforts, there are important lessons to be extrapolated and built on from the region. Recent years have seen a rapid expansion of UN technical assistance to communities to build the adaptive capacities of those most at risk in in MICs, LDCs and crisis contexts.²² An opportunity now exists to review these climate solutions and explore ways they can support the goals of enhancing institutional responses to converging crises, integrating climate solutions into pandemic recovery plans and climate-proofing stimulus measures, as follows:²³

- Integrate climate adaptation and disaster risk reduction measures into national recovery policies, plans and investments from the outset as a way of ensuring that agricultural livelihoods, MSMEs, tourism, infrastructure and other sectors can withstand more frequent and severe climatic disasters in the future.
- In MICs, LDCs and conflict-affected contexts, target recovery policies towards climate and disaster resilient livelihoods for poor and displaced communities – for whom stability and restoration of livelihoods, micro-enterprises, household needs and health services are increasingly affected by climate change – including use of adaptive social protection tools such as climate insurance as a means of building resilience.

17 OECD, *COVID-19 Crisis Response in MENA Countries*, OECD, Paris, 2020.

18 Joaquim Levy, Carter Brandon, and Rogerio Studart, *Designing the COVID-19 Recovery for a Safe and More Resilient World*, WRI, Washington, DC, 2020.

19 UNDP, *UNDP COVID-19 Response – Climate Offer*, UNDP, New York, 2020.

20 UNDP and Secretariat of the United Nations Framework Convention on Climate Change, *NDC Global Outlook Report 2019: The Heat is On*, UNDP, New York, 2019.

21 Stanley Center and E3G, *Global Financial Crisis and Climate Change – A Playbook for Action*, Stanley Center for Peace and Security and E3G, Washington, DC, 2019.

22 UNDP, *Climate Change Adaptation in Arab States: Best Practices and Lessons Learned*, UNDP, New York, 2018.

23 See: Climate Action Tracker, *A Government Roadmap for Addressing the Climate and post COVID-19 Economic Crises*, Climate Analytics and New Climate Institute, Berlin, 2020.

- Integrate climate priorities into new fiscal stimulus programmes through preferential loans and tax discounts as a means of integrating climate resilience into vulnerable sectors like agriculture, MSME's, tourism and infrastructure, and incentivizing enhanced climate performance so they can build back better.
- Design capital injection measures for the banking sector in a way that advances the role of banks as providers of climate financing and sustainable economic recovery.
- Explore the use of debt-for-climate swap mechanisms – particularly in fragile MICs, LDCs and crisis contexts – to convert foreign debt repayment obligations into domestic action on climate adaptation.
- Integrate climate change and disaster risk reduction into crisis management institutions and processes to enhance crisis response, employing climate impact analysis and post-disaster needs assessment tools and building early warning systems to manage multi-dimensional risk.
- Mobilize climate policies and innovative financing around the Paris Agreement and NDC processes to crowd-in public and private investments for a climate resilient economic recovery.
- Mainstream climate risks into new efforts to strengthen national and local health systems, as a means of building preparedness for the evolving role of climate change as a catalyst for health crises.

Sustainable energy

Renewable energy and energy efficiency have emerged as important elements of crisis recovery in the Arab region in recent years. Solar and wind power capacities increased more than ten-fold in the decade since the 2008–2009 global crisis, from a combined 0.5 GW in 2008 to about 7.2 GW by 2018.²⁴ This includes a doubling of capacity in just two years, from 2016 to 2018. This unprecedented surge represents a major advance toward meeting the region's aspirations to develop a new high-tech knowledge-based economy, enhancing energy security in import-dependent countries and building the socio-economic resilience of poor and vulnerable communities within MICs, LDCs and crisis contexts. Even in the oil exporting economies of the region, renewable energy and energy efficiency measures have accelerated in recent years, reducing reliance on oil for local electricity generation and resulting in hundreds of billions of dollars' worth of oil for future exports.²⁵

Despite these trends, this new economic crisis brings risks, with reductions in oil prices, foreign investment, public budgets and private finance. While the renewable energy sector will be impacted by this economic downturn, there are signs it may be more resilient than other energy sectors like oil and gas.

Indeed, renewable energy is now expected to be the only energy sector to witness positive growth in 2020, given its lower costs and its long-term strategic value in an increasingly carbon-constrained world.²⁶ With the right set of policies and partnerships, actions can be taken to ensure that the economic crisis does not derail the region's important progress on developing a new sustainable energy economy.

An important foundation for this are the National Renewable Energy Action Plans and National Energy Efficiency Action Plans enacted by countries across the region in recent years to expand the share of sustainable energy solutions in their overall power mixes. Ambitious targets and innovative policies exist across the region to attract private investment, enhance energy subsidies, establish renewable energy institutions and establish renewable energy development zones.²⁷ Countries in the region have set a cumulative target to reach 190 GW of renewable energy capacity by 2035, which will account for as much as 30 percent of overall global growth opportunities in the renewable energy sector.²⁸

Meanwhile, a number of parallel policy factors are emerging as part of the economic recovery process in the region that are important to consider in terms of

24 UNDP and RCREEE, *Arab Future Energy Index (AFEX) Report*, RCREEE, Cairo, 2019.

25 Ibid. See also: Kishan Khoday and Stephen Gitonga, *Decarbonizing Development in the Middle East*, UNDP, 3 December 2018 (<https://www.arabstates.undp.org/content/rbas/en/home/ourperspective/ourperspectivearticles/2018/decarbonizing-development-in-the-middle-east.html>).

26 IEA, *World Energy Investment 2020*, IEA, Paris, 2020.

27 Achim Steiner and Francesco La Camera, *Turning the Page on the Age of Oil*, Euractiv, 14 May 2020 (<https://www.euractiv.com/section/development-policy/opinion/turning-the-page-on-the-age-of-oil/>).

28 UNDP and RCREEE, *Arab Future Energy Index (AFEX) Report*, RCREEE, Cairo, 2019.

the region's continued shift to a clean energy economy. For example, a number of governments plan to reduce electricity bills for household and corporate energy users as part of their economic recovery policies – the intent being to provide greater fiscal space for consumers.²⁹ This, however, could serve to derail the energy conservation efforts countries have advanced in recent years and, combined with the cheaper price of oil and gas, could disincentivize further commitments to sustainable energy solutions. Another key trend is the review of health policies in the region with a focus on prevention.³⁰ Air pollution is one of the greatest sources of chronic respiratory disease in the region, thus the nexus of health policy and energy policy will be key for reducing vulnerability to health crises.

Furthermore, new capital injections are being planned as part of fiscal stimulus measures to stabilize the energy sector, with the risk that these are geared more towards the oil and gas industry rather than the newly emerging renewable energy market. High levels of fiscal stimulus are also planned for sectors like heavy industry, transport and construction, which are among the most energy-intensive sectors. Emerging packages of preferential loans, public grants and tax discounts can therefore be important tools to promote sustainable energy solutions by integrating renewable energy and energy efficiency measures into capital injection programmes.

Policy recommendations

Dedicated policy measures are needed to retain the momentum of pre-existing solar investment plans in the region, so that countries' hard-won successes in recent years are not lost as a result of the economic crisis. Promoting solar solutions within economic recovery investments and stimulus packages would ensure that renewable energy continues its rise to prominence as a high tech, knowledge-based sector in the region and a source of green jobs for young engineers, solar SMEs and clean energy providers. In addition to the systemic benefits of sustainable energy for economic resilience, an opportunity also exists in this process to mobilize solar solutions to empower community livelihoods and energy access. Solar solutions can bring benefits that

address the chronic energy gaps faced by poor and vulnerable communities in MICs and LDCs, as well as for restoring energy access to communities displaced by conflict where power supply infrastructure has been decimated by war. Solar solutions can help stabilize and empower local health facilities, reduce energy costs for the agriculture sector, and serve as a decentralized cost-effective means of regenerating MSMEs as well as tourism and manufacturing sectors.

The region has seen a number of solar initiatives in recent years, supported by the United Nations and other partners, to address the socio-economic needs of communities in the contexts of fragility and conflict.³¹ These successful models can also now be expanded upon to empower communities within socio-economic recovery efforts after the pandemic.³² Furthermore, in addition to supporting economic resilience, low carbon solutions can also contribute to a reduction of air pollution – a key source of underlying respiratory conditions for those affected by COVID-19 or other diseases.³³ Sustainable energy solutions can thus also help reduce the vulnerability of the poor to disease and particularly the urban poor in MICs, LDCs and crisis contexts who suffer the most from chronic air pollution and respiratory disease. In summary, the following policy measures will serve to ensure sustainable, low-carbon energy remains a feature of recovery and development efforts:

- Integrate solar solutions and energy efficiency measures into national recovery policies, plans and investments from the outset as a means to reduce energy costs and build the economic resilience of agricultural livelihoods, MSMEs, tourism, manufacturing and other key sectors in economic recovery.
- In MICs, LDCs and crisis contexts, target recovery policies toward the expansion of decentralized solar solutions for poor and displaced communities – those most impacted by the economic crisis and for whom solar solutions can help address chronic energy gaps for livelihoods – MSMEs and household needs, and social services such as health facilities, schools, shelters and orphanages.

29 International Monetary Fund (IMF), *COVID-19 Policy Tracker*, IMF, Paris, June 2020 (<https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#J>).

30 OECD, *COVID-19 Crisis Response in MENA Countries*, Paris, 2020.

31 UNDP, *Energy for Crisis Recovery: Solar Solutions for Crisis-Affected Communities in the Arab Region*, UNDP Regional Hub for Arab States, Amman, 2018.

32 See UNDP, *COVID-19 Response – Energy Offer*, New York, 2020.

33 Arvind Kumar, Jane Burston and Josh Karliner, *The Deadly Link between COVID-19 and Air Pollution*, 15 April 2020, WEF, Geneva (<https://www.weforum.org/agenda/2020/04/the-deadly-link-between-covid-19-and-air-pollution/>).

- Utilize fiscal policies such as incentives, tax discounts, subsidies and other tools to de-risk renewable energy investments and scale up energy efficiency measures; and mobilize new sources of public and private finance as a means of reducing the risk of a downturn in the region's nascent renewable energy market.
- Integrate renewable energy priorities into fiscal stimulus as a means of bolstering the resilience of the solar and wind sectors as new employment-generating components of the region's economy; and explore the integration of energy efficiency measures as part of the stimulus being provided to energy intensive sectors like heavy industry, transport and construction, so they can build back better.
- Harness the roles of renewable energy and energy efficiency investments in support of improved public health outcomes as a means of reducing the exposure of the urban poor to air pollution in MICs, LDCs and crisis contexts and thus their susceptibility to future pandemic outbreaks.

Environment

A strong connection exists between socio-economic recovery and the health of the region's ecosystems. As pressures mount on natural habitats, animals are pushed closer to human communities, increasing the risk of disease transmission. Recent years have seen a global surge in zoonotic outbreaks between animals and humans. More than ever, our ability to prevent outbreaks depends on our ability to maintain healthy ecosystems and avoid the blurring of ecological boundaries.

Ecosystems across the Arab region are under mounting pressure, with over one thousand threatened species in the region – most of which are classed as 'critically endangered'.³⁴ There is a large gap between ecological footprints (demand on natural assets) and carrying capacities (ability of nature to supply ecosystem goods and services) in the region.³⁵ As pressures mount on ecosystems, consequences accrue for human health and livelihoods.³⁶ One such consequence is that wildlife is forced into closer contact with livestock and human communities, increasing the risk of disease transmission. Before COVID-19, the last major outbreak of global concern was the Middle East Respiratory Syndrome (MERS) – a zoonotic disease passed from animal to human within the region.³⁷ Action to enhance the sustainable use and management of ecosystems and wildlife is therefore critical and an important means of reducing the risk of future zoonotic outbreaks.

A second issue facing communities – and the poor in particular – is access to basic environmental services. COVID-19 has come to represent a wakeup call in the region as to the centrality of water for public health. The pandemic has resulted in a five percent increase in household water demand for more frequent washing and related purposes, with rising demand adding pressures on already scarce resources and community infrastructure.³⁸

Meeting rising water demand has been a challenge for many communities. The average person in the region received one-eighth the renewable water of the global average individual, while 18 of the 22 Arab countries face water scarcity, with renewable freshwater scarcity below 1,000 cubic meters per capita per year.³⁹ Over 70 million people in the region across ten MICs and LDCs suffer from lack of regular household water, in addition to over 26 million refugees and IDPs in or from conflict-affected countries.⁴⁰ Lack of water access limits the ability to increase hygiene and cleaning practices while also constraining the ability of health facilities to provide emergency services.

In addition to the important role of water in pandemic response, the region's water insecurity challenges also serve as a barrier to effective economic recovery, with water representing a key input for MSMEs and the agriculture and manufacturing sectors. Water demand across the region has been on the rise in recent years, with the deficit expected to increase to 75.4 billion

34 ESCWA, *Arab Sustainable Development Report*, ESCWA, Beirut, 2016, p. 117.

35 Saab N., (ed), *Arab Environment 5 Survival Options: Ecological Footprint of Arab countries*, Arab Forum for Environment and Development, Beirut, 2012.

36 Abbas El-Zein, Samer Jabbour, Belgin Tekce, et al., "Health and ecological sustainability in the Arab world: A matter of survival", *The Lancet*, 383, 2014, pp. 458–476.

37 UNEP, *Zoonotic Diseases*, Nairobi, 2020.

38 ESCWA, *The Impact of COVID-19 on the Water Scarce Arab Region*, ESCWA, 2020/Policy Brief 5, Beirut, 2020.

39 ESCWA, *Arab Sustainable Development Report*, ESCWA, Beirut, 2020, p. 86. See also: UNDP, *Water Governance in the Arab Region*, UNDP, New York, 2013.

40 ESCWA, *The Impact of COVID-19 on the Water Scarce Arab Region*, ESCWA, 2020/Policy Brief 5, Beirut, 2020, pp. 2, 5.

cubic meters (bcm) by 2030 from just 28.3 bcm in 2000.⁴¹ Water demand will increase still further during the recovery phase and into the future as cleaning and disinfection practices expand. To reduce the risks of water scarcity undermining economic recovery, water conservation measures should be mainstreamed into new recovery investments, while water governance and public–private partnerships should be enhanced, and water treatment and reuse capacities expanded.

Waste management services have also come into stark focus during the pandemic. The need to safely dispose of medical waste has increased dramatically⁴² alongside the use of plastic and other disposable personal protection equipment.⁴³ Billions of masks and gloves will be consumed and disposed of across the region, with a clear corresponding risk of increased disposal into the region's rivers and seas.⁴⁴ Prior to the pandemic, solid waste had been growing at a rate of more than three percent per year in the region, with major gaps in local governance, public–private financing, and recycling, reuse and reduction capacities.⁴⁵ The situation is the most severe in conflict-affected countries, where decimated waste disposal services have led to local health crises such as outbreaks of cholera and other diseases that continue to have impact alongside COVID-19.

The unsustainable use of ecosystems, combined with chronic deficits in key services such as water and waste management, put many communities at greater risk of pandemic impacts while also generating barriers to socio-economic recovery.⁴⁶ This is particularly important for poor and vulnerable communities in MICs and LDCs where health and livelihoods are severely impacted by the decline of ecosystem services, and for communities displaced by conflict for whom resumption of development pathways is dependent on access to water and other natural assets.

As countries proceed with measures to address the economic crisis, there are a number of policy responses emerging in the region that bring implications for ecosystems, water and waste. As countries seek to stabilize and recover from the crisis, a risk exists that measures will be enacted to restart economic growth at the expense of the environment. Globally, new deregulatory trends are emerging, with some large economies in the G20 side lining environmental measures to reduce compliance burdens on industry, including, for example, waivers of environmental impact reviews and public consultation processes.⁴⁷ This is ultimately a short-sighted solution to the challenge of regenerating growth. In the Arab region, pre-existing environmental impact assessment regulations are critical in this regard, as a means to ensure that industrial impacts on ecosystems, water and waste are prevented and mitigation measures put in place. In a region that is already the world's most water scarce and ecologically fragile, these policy measures are vital to ensure that recovery measures do not exacerbate existing environmental risks.

Policy recommendations

As countries move ahead with recovery plans and investments, a focus on improving ecosystem management, water access and waste management can help build community resilience while mitigating risks to the sustainability of the results of economic recovery. The following measures, therefore, should be considered in this context:

- Utilize fiscal policies, such as incentives, tax discounts and other tools, to scale up investments in water and waste management capacities, mobilize new public and private finance as a means of reducing risks to economic recovery, and integrate nature-based solutions into stimulus

41 ESCWA, *Developing the Capacity of Member Countries to Address the Water and Energy Nexus for Achieving the SDGs*, Regional Policy Toolkit, ESCWA, Beirut, 2016.

42 World Health Organization (WHO), *Overview of technologies for the treatment of infectious and sharp waste from health care facilities*, Geneva, 2019. UNDP, *Guidelines for Sustainable Procurement of Healthcare Commodities and Services*, New York, 2020.

43 UNEP, *COVID-19 Waste Management Factsheet*, Nairobi, 2020.

44 See: Kristin Hughes, *Protector or polluter? The impact of COVID-19 on the movement to end plastic wastes*, WEF, 6 May 2020 (<https://www.weforum.org/agenda/2020/05/plastic-pollution-waste-pandemic-covid19-coronavirus-recycling-sustainability/>); and Lillo Montalto Monella, *Will plastic pollution get worse after the COVID-19 pandemic?* Euronews, 13 May 2020 (<https://www.euronews.com/2020/05/12/will-plastic-pollution-get-worse-after-the-covid-19-pandemic/>).

45 UNEP, *Global Environment Outlook: West Asia*, Nairobi, 2016, p. 92.

46 UNDP, *COVID-19 Response: Nature Offer*, New York, 2020.

47 Fermin Koop, *Let's Use the Pandemic to Dismantle Environmental Regulations*, 25 May 2020 (<https://www.zmescience.com/science/lets-use-the-epidemic-to-dismantle-environmental-regulations-brazilian-environment-minister-says/>); Hans Nicholas Jong, *Activists Challenge Indonesia Deregulation Bill that Threatens Environment*, 8 May 2020 (<https://news.mongabay.com/2020/05/indonesia-deregulation-omnibus-environment/>). Bloomberg, *China Drops Key Environmental Target as Coronavirus Hits Growth*, 25 May 2020 (<https://www.jwnenergy.com/article/2020/5/china-drops-key-environmental-target-coronavirus-hits-growth/>).

packages for MSMEs, agriculture, tourism and manufacturing to enable them to build back better.

- Explore the use of debt-for-climate and debt-for-nature swaps to offset the need for new debt commitments with the investment of domestic resources into measures that scale up the sustainable use and conservation of biodiversity, ecosystems and water security.
- Use strategic environmental assessment tools as part of socio-economic assessment processes and integrate water access, waste management and nature-based solutions into national recovery plans and investments to stabilize and regenerate livelihoods, MSMEs, manufacturing and infrastructure.
- Advance nature-based solutions and sustainable uses of biodiversity to restore and regenerate ecosystems as a means of maintaining community livelihoods, eco-tourism and social resilience, and to reduce the risk of future disease outbreaks.
- In MICs, LDCs and conflict-affected contexts, mainstream decentralized water solutions and improved water conservation measures into recovery plans and investments to address water access needs for regenerating livelihoods and social services such as health facilities, schools, shelters and orphanages.
- Enhance local governance concerning the safe management and disposal of medical and plastic waste, and mobilize water and waste management investments to improve public health, including for the expansion of water access in medical facilities and households to reduce exposure to health risks.