



Distr.: General
12 November 2020
Original: English



**United Nations
Environment Assembly of the
United Nations Environment
Programme**

**United Nations Environment Assembly of the
United Nations Environment Programme
Fifth session**

Nairobi (online), 22–26 February 2021*
Item 5 of the provisional agenda**

**International environmental policy and
governance issues**

**Progress in the implementation of resolution 4/5 on sustainable
infrastructure**

Report of the Executive Director

Introduction

1. In its resolution 4/5 on sustainable infrastructure, the United Nations Environment Assembly of the United Nations Environment Programme (UNEP) requested the Executive Director of UNEP to ensure that UNEP supported the development of sustainable infrastructure as a means of implementing the goals and targets of the 2030 Agenda for Sustainable Development. Such support was to include promoting existing guidelines and best practices; supporting multi-stakeholder dialogues; creating and strengthening partnerships; developing the capacity of government policymakers and other stakeholders to use data, knowledge, tools, approaches and other mechanisms to incorporate sustainable infrastructure into development and business strategies; and strengthening public-private partnerships to facilitate private investment in sustainable infrastructure.
2. In the resolution, the Environment Assembly also requested the Executive Director to prepare a compilation of best practices, building on the work of the United Nations regional commissions and other United Nations bodies, drawing on existing initiatives and identifying knowledge gaps, to assist Member States in promoting and strengthening the sustainability of their infrastructure, and to submit that report to the Environment Assembly at its fifth session.
3. The present report describes the efforts of UNEP to implement the resolution. They include (a) raising awareness about the importance of infrastructure for sustainable development and establishing it as a distinct issue on the global policy agenda; (b) promoting existing – and developing new – normative and technical guidance, knowledge and tools related to integrated approaches to sustainable infrastructure; and (c) mobilizing international support for strengthening countries' technical and institutional capacity to adopt integrated approaches to sustainable infrastructure planning and development that support their national development objectives.

* In accordance with the decisions taken at the meeting of the Bureau of the United Nations Environment Assembly held on 8 October 2020 and at the joint meeting of the Bureaux of the United Nations Environment Assembly and the Committee of Permanent Representatives held on 1 December 2020, the fifth session of the Assembly is expected to adjourn on 23 February 2021 and resume as an in-person meeting in February 2022.

** UNEP/EA.5/1/Rev.1.

I. Progress in the implementation of resolution 4/5

4. Sustainable infrastructure sits at the heart of the Sustainable Development Goals, cutting across all 17 Goals and influencing 92 per cent of the 169 targets. The importance of sustainable and resilient infrastructure systems has been magnified by the coronavirus disease (COVID-19) crisis, and they are central to green recovery plans.

5. Efforts to implement the resolution contribute to UNEP subprogramme 6 on resource efficiency, expected accomplishment (a), indicator (i). Approximately \$335,000 of Environment Fund resources has been used for the activities described in the present report. Some \$3.1 million in additional extrabudgetary resources has been mobilized to support the resolution's implementation, covering the activities described above as well as ongoing related work through to the end of 2021.

A. Stocktaking and gap analysis

6. Implementation by UNEP of the resolution began with taking stock of existing approaches, knowledge and tools for increasing the sustainability of infrastructure. The results of the stocktaking exercise were published in April 2019 in the UNEP report entitled *Integrated Approaches to Sustainable Infrastructure*.

7. In the report, UNEP found that, although guidance and tools existed for incorporating sustainability into infrastructure development, major gaps were contributing to unsustainable infrastructure development. First, the majority of the guidance and tools address sustainability at the project level, with limited potential for positive impact because important decisions have already been made about what to build and where to build it. Second, sustainability is often viewed narrowly, with a strong focus on climate and not enough attention paid to other aspects, such as biodiversity or inclusiveness. Third, with respect to financing for sustainable infrastructure, there is a tendency to focus on the quantity of infrastructure investments needed (e.g., "closing the infrastructure investment gap") rather than on the quality of those investments (e.g., sustainability and alignment with service needs).

8. It is proposed in the report that these gaps be addressed by "integrated approaches" that (a) consider sustainability as far upstream in the infrastructure life cycle as possible, when more options for increasing infrastructure's sustainability are still politically, technically and economically feasible; (b) consider the interlinkages between different infrastructure systems in different sectors and locations, and the aggregate impacts in terms of environmental, social and economic sustainability across the entire infrastructure life cycle; and (c) create institutions, policies and processes that enable these measures and provide incentives for implementing them.

B. Sustainable Infrastructure Partnership

9. UNEP is working to address these gaps through the Sustainable Infrastructure Partnership, a network of more than 30 institutions including international organizations, multilateral development banks, non-governmental organizations, think tanks, academics, professional associations and government. The Partnership works to (a) raise awareness of the importance of infrastructure for sustainable development; (b) promote existing and develop new guidance, knowledge and tools related to integrated approaches to sustainable infrastructure; and (c) mobilize international support for strengthening countries' technical and institutional capacity to adopt integrated approaches to sustainable infrastructure.

C. Good Practice Guidance Framework for Sustainable Infrastructure

10. With financial support from the Global Environment Facility, UNEP is leading an expert working group of Sustainable Infrastructure Partnership members to address the gaps identified in the *Integrated Approaches to Sustainable Infrastructure* report by developing a consolidated, streamlined and internationally applicable Good Practice Guidance Framework for Sustainable Infrastructure for high-level decision makers in government. The Framework consists of 10 principles that underpin needs-based, systems-level integrated approaches to sustainable infrastructure planning and development, and it will be launched at the fifth session of the Environment Assembly.

11. A draft of the Guidance Framework was shared with international experts and Member States, for review, in May 2020. The peer review and stakeholder consultation process, supported financially by the Government of Switzerland, included seven online regional consultation meetings involving 72 countries, as well as representatives from a wide array of multilateral organizations. The aims of the consultations were to inform and to collect feedback on the draft guidance, to provide an

opportunity for countries to share their experiences with implementing resolution 4/5 and with sustainable infrastructure in general, and to discuss activities for ongoing implementation of the resolution and for potential follow-up at the fifth session of the Environment Assembly. The consultations were supplemented by a questionnaire, which generated 62 responses from 39 countries, and peer review of the draft guidance by 32 international experts.

12. The Good Practice Guidance Framework for Sustainable Infrastructure is complemented by two additional outputs. The first is a collection of case studies based on Member States' experiences in implementing sustainable infrastructure. With financial support from the Government of Switzerland and the Partnership for Action on Green Economy, and developed in cooperation with partners from the Sustainable Infrastructure Partnership, the publication will feature case studies from 10 different countries (Afghanistan, Austria, Chile, Ecuador, Iran (Islamic Republic of), Malawi, Mongolia, Saint Lucia, Singapore and Zimbabwe) for each of the 10 principles in the Framework. The second complement is a knowledge hub based on the online Sustainable Infrastructure Tool Navigator created by the German Agency for International Cooperation (GIZ), with which UNEP has partnered to expand the Navigator's scope.

D. Knowledge generation and exchange

13. UNEP has collaborated with partners to host events and publish knowledge products relating to various aspects of sustainable infrastructure, including social inclusiveness, climate, biodiversity, resource efficiency infrastructure, sustainable public procurement, the role of the private sector, the integration of green, blue and grey infrastructure, and sustainable infrastructure's role in a green post-COVID-19 recovery. At the cities level, UNEP has developed Integrated Guidelines for Sustainable Neighbourhood Design, which turn the findings of the International Resource Panel's *The Weight of Cities* report into guidance to harness the climate and resource reduction potentials.

E. Capacity-building and country support

14. Since September 2019, with Global Environment Facility financial support, UNEP has been working with the World Conservation Monitoring Centre to assess the environmental, social and economic impact of infrastructure development on a global scale. The assessment will be completed by August 2021. At the same time, the assessment methodology is being adapted for application at the country level and will be piloted in Mongolia in the first half of 2021 to assess the sustainability of the transportation sector in that country.

15. In Ghana, UNEP is working with the Global Centre on Adaptation, the University of Oxford, the United Nations Office for Project Services and the Government of Ghana under a Global Commission on Adaptation project to conduct an integrated assessment of the enabling, built and natural environments. The assessment will inform the development of a national plan for increasing the resilience and sustainability of infrastructure in the water, transport and energy sectors. This plan will feed into the revision of the nationally determined contributions of Ghana under the Paris Agreement, as well as the development of a Ghanaian national action plan for climate adaptation.

16. Working with regional partners and with financial support from the Government of China, UNEP has developed three week-long regional capacity-building workshops for policymakers on sustainable infrastructure. One of the three workshops was delivered for policymakers from Central Asian countries, whereas the remaining two (for South-East Asia and Africa, respectively), which were scheduled to take place in February and October 2020, have been placed on hold until 2021 because of COVID-19-related restrictions. Working with Duke University, UNEP is leading the development of a Sustainable Infrastructure Community of Learners, which so far includes 20 other organizations, in order to institutionalize and better coordinate capacity development efforts.

II. Lessons learned

17. The broad consultations on the Good Practice Guidance Framework for Sustainable Infrastructure described in paragraph 10 above identified a variety of lessons on sustainable infrastructure, including the following:

(a) "Business as usual" infrastructure development has failed to deliver sustainable infrastructure on the scale required to meet the Sustainable Development Goals. Sustainability is often considered too late, superficially, and on a project-by-project basis. As an alternative to this, more integrated approaches that consider all aspects of sustainability, as early in the infrastructure life cycle as possible, and in a way that accounts for interlinkages between different infrastructure systems, including the natural environment, can contribute to more sustainable and effective outcomes. When

infrastructure is viewed as a “system of systems”, trade-offs and synergies from different projects and sectors can be balanced to achieve more efficient allocation of infrastructure investments for delivering services and meeting national sustainable development objectives. Potential risks can be identified and addressed earlier in the planning process, resulting in more sustainable projects that are better aligned with users’ needs and expectations.

(b) There is a lack of coordination among the major actors at the international and national levels. Internationally, this relates to development partners working on sustainable infrastructure – for example, United Nations entities, the Group of 20 and multilateral development banks. Nationally, it relates to cross-ministerial cooperation and multilevel governance. At both levels, co-creation with private-sector actors is also critical. International actors and national and local governments need to build institutional, policy and regulatory environments that enable coordinated, integrated planning and delivery of sustainable infrastructure.

(c) Infrastructure investments need to respond to multiple crises, including climate change (in terms of both mitigation and adaptation), resource overuse, biodiversity loss and pollution. Nature-based solutions and investments in natural infrastructure play a critical role in connecting these agendas.

(d) A lack of guidance and tools is not in most cases currently the main barrier to sustainable infrastructure; the barrier is a lack of capacity to navigate the wealth of information and tools available, to understand when, why and how to use them, and then to create the institutions, policies and governing frameworks (i.e., the enabling environment) needed to apply them effectively.

(e) There is a strong need to complement global-level awareness-raising and normative work with increased direct support for national and subnational governments in the form of knowledge-sharing, capacity-building and technical assistance, with an emphasis on using existing tools to their maximum potential. This includes the creation of a “one-stop shop” for knowledge products and tools dedicated to sustainable infrastructure, including case studies that show users when, where, why and how the products and tools have been applied and highlight successes and lessons learned, as well as targeted, coordinated capacity-building to help governments adapt and apply the relevant knowledge and tools in diverse local contexts.

(f) There is a lack of financing for sustainable infrastructure, and, because of increasingly constrained public budgets, a need for incentives for private-sector investors to invest in sustainable projects. Current barriers to increased public and private investment include the perception that sustainable infrastructure is more expensive than less sustainable “business-as-usual” options and a lack of financing mechanisms for sustainable infrastructure. This points to a need to develop business cases for sustainable infrastructure, including Nature-based solutions that factor in the long-term economic, social and environmental benefits that can offset upfront costs, and for innovative financing mechanisms that incorporate these costs and benefits and allocate risk accordingly.

(g) There is no existing measurement framework for monitoring the sustainability of infrastructure in a holistic way at the aggregate (e.g., national) level. The current indicator for measuring progress towards target 9.1 of the Sustainable Development Goals only directly captures economic aspects of infrastructure.

(h) The COVID-19 pandemic and the resulting economic crisis have compounded the urgency of addressing infrastructure challenges, with many large-scale infrastructure investments planned as part of stimulus measures. Lessons from previous recoveries demonstrate the need to ensure that these investments are sustainable, since they will shape the future of economies and societies and affect the achievement of the Sustainable Development Goals and the goals of the Paris Agreement.

III. Recommendations and suggested actions

18. The Environment Assembly may wish to recognize the importance of sustainable infrastructure to “building back better” and a green post-COVID-19 recovery, and to consider how investments in social, economic and ecological infrastructure can support economic recovery, create green jobs, and build resilience to future crises as well as inclusive and healthy societies.

19. The Assembly may wish to consider adopting sustainable infrastructure guidelines that, together with associated policy and regulatory incentives to promote compliance, can help Member States implement resolution 4/5 on sustainable infrastructure, including by developing and strengthening national and regional systems-level strategic approaches to infrastructure planning and promoting Nature-based solutions as key components of such approaches.