Input for the 2025 High-level Political Forum

International Atomic Energy Agency (IAEA)

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

COVID-19 forced healthcare resources to be redirected to pandemic response, leaving NCDs without dedicated oversight: patients requiring radiotherapy faced barriers to accessing treatment, country missions for baseline assessments (such as the IAEA's imPACT Reviews) were hindered due to travel restrictions and resource reallocation, delaying national healthcare planning and decision making. Further, the climate crisis is reversing efforts to ensure access to nutritious and safe food supplies, and the capacity of countries to address interconnected health problems.

Our Blue Planet is facing a triple crisis: climate change, pollution and biodiversity loss. Each of these crises exacerbates the others, creating a complex web of environmental issues impacting the ocean. The degradation of ocean ecosystems threatens food security, livelihoods, and the overall well-being of billions of people globally.

Access to crucial STI has been reduced due to lack of resources and capacity building. The need for data to support informed decision making for equitable solutions and investment has become increasingly important. Developing countries and those most vulnerable to climate change, particularly SIDS and LLDCs, need data-driven tools to properly advocate for solutions to crises that have an outsized impact on their populations. Unfortunately, many countries have insufficient laboratory capacity, and there is a lack of harmonized procedures for the collection and validation of data. This gap makes it difficult to establish baselines, track changes over time, and implement targeted interventions in pursuit of the SDGs. To address this gap and regulate action towards sustainable solutions, we need to improve scientific knowledge based on accurate data obtained, to establish scientific and technical cooperation for sharing data and knowledge, and to strengthen SDGs' implementation through the coordinated involvement and commitment of every and all actors.

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

The IAEA plays a crucial role in advancing sustainable, inclusive, science- and evidence-based solutions to support Member States to reduce health disparities and premature mortality from NCDs by means of support to policy development (e.g. through the flagship initiative Rays of Hope), Coordinated Research Projects (bringing together research institutions from developing and developed Member States to collaborate on projects of common interest), and capacity building to address the shortage of skilled professionals within diagnostic imaging, nuclear medicine, radiation oncology, medical

physics, and nutrition (e.g. by the provision of freely accessible resources and training materials at Human Health Campus, the production and dissemination of educational materials and publications for continuous learning). To ensure sustainability of results, SS/TrC mechanisms are established.

Nuclear and isotopic techniques play a significant complementary role in advancing knowledge and providing Member States with methodologies for monitoring and impact assessment in the areas of climate change, pollution and seafood safety. The IAEA is advancing knowledge for science-based decisions through developing upcycling solutions to reduce plastic pollution via irradiation, supporting Member States to harmonize sampling and analytical methods for the monitoring of marine microplastics pollution and to utilize radiotracing methods to assess the transfer of microplastics along the seafood chain, promoting understanding of the effects of ocean acidification as a global stressor for marine ecosystems and on the behaviour of contaminants in the marine environment. These efforts not only protect marine ecosystems, but also support human health and livelihoods, addressing the social and economic dimensions of sustainable development.

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

Full integration of cancer and NCD interventions within national health policies, ensuring alignment with SDG 1, 3, and 10; use of data-driven approaches to inform policy and investment decisions; enhancement of collaboration with key stakeholders to develop evidence-based policies and scale up NCD interventions; foster multi-sectoral partnerships to ensure sustainable financing and capacity building in LMICs.

The IAEA's Maria Sklodowska-Curie Fellowship Programme (MSCFP) provides female students with scholarships for Master's programmes and opportunities for internships in the nuclear sector facilitated by the IAEA. Since its launch in 2020, 760 students from 129 countries have received a scholarship. The Lise Meitner Programme, initiated in March 2023, aims to provide early- and mid-career women professionals with opportunities to participate in a multiweek visiting professional programme to advance their technical and soft skills; it includes professional visits to various nuclear facilities.

The IAEA leverages its expertise in nuclear science and technology via the implementation of focused initiatives such as the NUTEC Plastics, to help countries integrate nuclear techniques to improve plastic upcycling and the monitoring and assessing of microplastic pollution in the ocean (thus contributing to the UN Treaty to end plastics pollution - a partnership with UNEP is in place to develop a joint database for information sharing); the hosting of the Ocean Acidification International Coordination Centre, to support the use of nuclear and isotopic techniques to track ocean acidification and mitigate its impacts through the assessment of nature based solutions such as Blue Carbon; the ALMERA

network, to coordinate the monitoring of marine radioactivity, provide training and technical support to Member States, and facilitate the sharing of best practices and data, promoting coordinated efforts to protect the marine environment and respond to emergency situations.

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

Under its Rays of Hope initiative the IAEA aims to expand access to cancer care where is most needed. With over 90 countries requesting support, progress to date includes the establishment of first-ever public cancer care facilities, the expansion of existing cancer care services, and the training and education of medical professionals. Central to the initiative's overall sustainability are knowledge and capacity building hubs (Anchor Centres) established to provide targeted support in research, innovation, training and quality assurance at regional, subregional and interregional level. Furthermore, the IAEA's recently launched Lancet Oncology Commission on Radiotherapy and Theranostics provided healthcare practitioners and policymakers with compelling health economics cases to upscale access to two cancer therapies, demonstrating how an additional 2.2 million breast and prostate cancer patients could have been treated in 2024 had a resource-sparing approach been utilized, and how a 50% substitution of conventional radiation therapy with this approach would have yielded $2.76 billion in cost-savings (at 80%, $4.41 billion).

The IAEA has continued the implementation of its MSCFP and Lise Meitner Programmes. The fifth cycle of the MSCFP scholarship recipients has just been selected, and additional visits are planned in 2025 under the Lise Meitner Programme.

The IAEA provides scientific data and policy advice to support the outcomes of the 2023 SDG Summit Political Declaration and the 2024 Summit of the Future by ensuring that nuclear science and technology are integrated into global efforts to achieve the SDGs. The follow up actions include supporting countries in using nuclear and isotopic techniques to contribute to understanding the impacts of multiple stressors and land to sea continuum, generated by human activities, on marine ecosystems and resources.

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

Advocate for a global, comprehensive approach to NCD, also integrating financial strategies; emphasize the need for holistic funding, ensuring investments in cancer care are part of a broader, sustainable healthcare package, rather than being addressed in isolation.

Development and transfer of nuclear and isotopic science and technology is key to filling the data gap and ensuring knowledge driven policy-making towards implementation of SDG 14.

Leveraging science and technologies, including nuclear and isotopic, recognizing the importance of partnerships and coordination, and pursuing the capacity building effort can contribute to progress towards SDG14 and ensure a more sustainable and inclusive future for all.

Nuclear science and technology plays a vital role in advancing progress on the SDGs, and is pivotal to obtaining the data necessary to monitor continued progress on the targets. Further, UN Organizations like the IAEA can leverage their unique role in the development of STI to ensure broad uptake, equitable access to, and safe use of advanced techniques.

In a context of triple planetary crisis urgency, it is more than ever crucial to coordinate actions among UN Agencies and identify ways to contribute to other Organisations' programme implementation through specific information sharing mechanisms. In this sense, the coordination role of the EMG and other mechanisms should be further encouraged to maintain effective partnerships and accelerate progress towards SDGs.