IAEA Ministerial Conference on

Nuclear Science, Technology and Applications and the Technical Cooperation Programme, 26-28 November 2024, Vienna, Austria

Concept Note

A. Background

For more than six decades, the International Atomic Energy Agency (IAEA) has provided support to Member States in planning for and the use of nuclear science and technology for various peaceful purposes whilst responding to evolving needs and priorities. Through capacity building and facilitation of transfer of technology and knowledge, the IAEA has supported efforts of Member States to address their developmental needs and attain the Sustainable Development Goals (SDGs).

The IAEA organized the Ministerial Conference on Nuclear Science and Technology: Addressing Current and Emerging Development Challenges in Vienna, Austria, from 28 to 30 November 2018. The Conference was attended by ministers, high-level officials and experts from Member States and various international organizations. A Ministerial Declaration was adopted during the Conference, acknowledging the work of the IAEA in providing meaningful support to efforts by Member States towards the achievement of national and multilateral development goals, including those related to poverty reduction, access to healthcare, the provision of potable water and access to sanitation, improved nutrition and food safety, environmental remediation, climate action and efforts to monitor and reverse the impact of ocean acidification. The Conference agreed that the IAEA should intensify its efforts to support Member States in identified areas of interest, in particular, through its Technical Cooperation Programme.

Since the last Ministerial Conference in 2018, some global issues have emerged which require attention, including the COVID-19 pandemic, food security, and climate change. While the reduction of carbon emissions remains, rightfully, at the forefront of the debate on climate change, some parts of the world are already experiencing drastic impact of climate change on, inter alia, their agricultural production and/or freshwater resources, requiring the adoption of mitigation measures. The COVID-19 pandemic, with its dramatic human and economic consequences, has demonstrated that human health is more than ever dependent on animal health and a healthy environment. The concept of One Health needs to be fully integrated. In addition to climate change, the crises and conflicts around the world, affecting international trade and the food supply chain, have exacerbated food insecurity in the poorest

parts of the world. The current global economic situation and the complexity of the major challenges faced require a multisectoral approach, integrating partnership and resource mobilization across research and development, academia, education, international organizations and the private sector. Nuclear techniques are an integral part of the technological solution to the main development challenges the world is facing today including , inter alia, climate change, health food safety and security, water resource management and application of radiation technology to industry particularly in the areas of health and food security.

In order to generate a bigger impact on some developmental areas, the IAEA has already launched cross cutting initiatives such as Zoonotic Disease Integrated Action (ZODIAC), NUclear TEChnology for Controlling Plastic Pollution (NUTEC Plastics), Rays of Hope and more recently, together with the Food and Agriculture Organization of the United Nations (FAO), the Atoms4Food initiative. Yet many national authorities remain unaware of the benefits of nuclear science, technology and applications and the support they could receive from the IAEA in research and development as well as through the technical cooperation programme. International development banking institutions and the private sector have yet to dedicate the funding they allocate to other United Nations agencies for development projects.

In line with requests by Member States in the General Conference resolutions, the IAEA is organizing the Ministerial Conference on Nuclear Science, Technology and Applications and the Technical Cooperation Programme in Vienna, Austria, from 26 to 28 November 2024. The Ministerial Conference will provide another opportunity to Member States and other partners to address topics[1] of interest and to explore the breadth of nuclear science, technology and applications towards socio-economic development, with special emphasis on, inter alia, climate change, health, and food safety and security as well as water resource management and radiation technology supporting these areas, highlighting when and where possible, the recent major IAEA initiatives. It will further serve as an important platform to highlight the latest in research and development as well as achievements of the technical cooperation programme at country level, discuss innovative ways to bridge the gaps in the field of nuclear science, technology and applications among Member States, and address the needs for partnerships, resource mobilization and education programmes to ensure sustainability and socio-economic impact in Member States.

B. Objective:

[1] It should be noted that during the initial consultations some Member States brought up the need to address energy policy aspects of nuclear in the Conference. Without prejudice to the final outcome of the upcoming discussions on the Conference programme, for instance a technical panel session on nuclear energy in the context of climate change could be envisaged to accommodate this request. It may be recalled that nuclear energy, radiation and nuclear safety and nuclear security have their own dedicated international and ministerial conferences.

The objective of the conference is to enable the participants to engage in high-level dialogue to:

1. Facilitate the development and deployment of nuclear techniques with emphasis on climate change, health, and food safety and security as well as water resource management and radiation technology supporting these areas;
2. Strengthen and address sustainability and growth of the Agency's support to Member States towards achievement of the SDGs, including through partnerships with the private sector, development agencies, regional and international development and financial institutions;
3. Recognise and raise awareness amongst strategic decision makers, the private sector, the youth and other relevant stakeholders on the role of the IAEA's research and development capabilities and its technical cooperation programme in the development and transfer of nuclear science, technology and its applications to address developmental challenges; and
4. Encourage Member States to enhance nuclear science education.

C. Target audience

The Ministerial Conference foresees the participation of ministers, high-level representatives, high-level decision makers and policy formulators from Member States, international organizations, industry, youth, technical experts, academia, the private sector, international development banking and non-governmental organizations.

D. Conference Structure and Major Topics

The Conference will consist of:

- A **Ministerial Segment**, which will provide an opportunity for ministers to deliver national statements as well as the adoption of a Ministerial Declaration.
  (Note: The adoption of the Ministerial Declaration can take place at the beginning of the Conference to take stock of the presence of high-level representatives in the room, or on the last day.)
- A **Scientific and Technical Programme,** that will comprise panel discussions among scientists and experts on the latest developments in nuclear science, technology and applications, and among Member State's representatives that will highlight the role of the IAEA technical cooperation programme in contributing to their national development and global partnership for sustainable development and generating bigger impact.
- **Partnership and Engagement** of relevant stakeholders such as the private sector, development agencies, regional and international development and financial institutions, as well as the youth. The Conference will also highlight the need for gender equality, youth involvement and education in the fields related to nuclear science, technology and applications.

E. Expected outcomes:

- Strengthened partnerships with development agencies and reaffirming the importance of the IAEA's role in promoting nuclear science and technology and in facilitating the development and deployment of nuclear techniques to contribute to addressing some urgent global issues.
- Increased awareness of how a strengthened and sustainable technical cooperation programme, including enhanced partnership, can support Member States in addressing major cross-cutting challenges.
- Strengthened political and financial support to the IAEA flagship initiatives (ZODIAC, NUTEC Plastics, Rays of Hope, Atoms4Food, Atoms4Climate, Marie Sklodowska-Curie Fellowship Programme, Lise Meitner Programme).
- Engaging in an informal and a lean follow-up process (e.g. groups of friends) to take stock of the progress achieved on the key substantive areas of the Conference and to make recommendations on the preparation of the next Ministerial Conference.

F. Inter-departmental cooperation:

The conference will be organized and conducted jointly by the Department of Nuclear Sciences and Applications and the Department of Technical Cooperation in close collaboration with all relevant internal stakeholders including Departments of Nuclear Safety and Security, Nuclear Energy, Management; Office of Public Information and Communication and Director General's Office, when and where needed.

G. Expected number of participants: About 1000.