



IAEA

60 Years

Atoms for Peace and Development

Introduction to the Integrated Support Plan for Safety

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Main Areas of Work



Science and Technology



Safety and Security



Safeguards and
Verification



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TC Strategy

To increasingly promote tangible **socio-economic** impact by contributing directly in a **cost-effective** manner to the achievement of the major **sustainable development** priorities of each country

Technical Cooperation Programme

Training fellowships
& scientific visits



Conferences,
symposia &
seminars



Training courses
& workshops

- Primary mechanism for delivering IAEA's technical cooperation services
- Provides assistance and training in the use of peaceful nuclear technology
- Aims to support sustainable socioeconomic development in Member States

Technical Cooperation Projects

Expert
assistance



Equipment &
materials

In health...

Cancer



Cancers are one of the main causes of death worldwide. Their incidence is on the rise, mainly due to an increase in people's lifespan and changes in lifestyle. The IAEA contributes nuclear techniques to the fight against cancer in diagnosis, treatment and training for Member States.

Nutrition



Proper nutrition is fundamental to health. The world is facing a double burden of malnutrition – undernutrition and obesity coexist, contributing to non-communicable diseases. Using stable isotope techniques, nutrition and health professionals can develop and evaluate nutrition actions to combat all forms of malnutrition.

Infections



Nuclear-derived techniques can help detect, control and prevent the spread of some of the world's most dangerous diseases, such as Malaria, Ebola and Zika. We support the use of various nuclear-derived methods that are efficient, cost-effective and environmentally-friendly and assist our Member States in fighting infectious diseases.

In agriculture...

Plant Breeding



Irradiation can be used to induce mutations in plants with the goal to produce varieties that display improved product quality, have higher yields and yield stability, greater resilience to climate change and tolerance to environmental stresses. We help Member States use mutation techniques to optimise plant biodiversity.

Resources



Sustainable management of agricultural land and water is fundamental to global food security. Using nuclear technologies, we develop sustainable land and water management practices that contribute to increasing global agricultural production and food security while conserving natural resources.

Food Safety



We provide assistance to countries, using nuclear and related techniques, to ensure the safety and quality of food and agricultural commodities and to facilitate international trade. We pursue a 'farm-to-fork' approach that ensures the application of good agricultural practices throughout the food chain.

For example...

Insect Pests



In partnership with the Food and Agriculture Organization (FAO), IAEA laboratories are spearheading global research in the development and application of **Sterile Insect Technique** (SIT) to prevent insect pests caused by mosquitoes, tsetse flies, fruit flies, screw worm, codling moth and others.

Diseases



IAEA promotes the use of radiation such as X-rays, Gamma rays and particles to help diagnosis and treatment of health problems. This work helps decrease infectious and non-communicable diseases (cardio-vascular disorders or cancer), neurological diseases as well as malnutrition worldwide.

Red Tides



Nuclear technology such as **receptor-binding assay**, combined with other methods, provide early warning to fishers about the toxicity levels caused by harmful algal blooms (Red Tides). This enables them to take measures to reduce the risk of food poisoning.



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Why is Safety Important ?

In keeping with the SAGTAC recommendation that *"the Agency should put radiation safety as its topmost priority"*, all IAEA staff members should be actively encouraged to sensitize and enhance the relevance of the RSI during meetings with relevant high level decision-makers.



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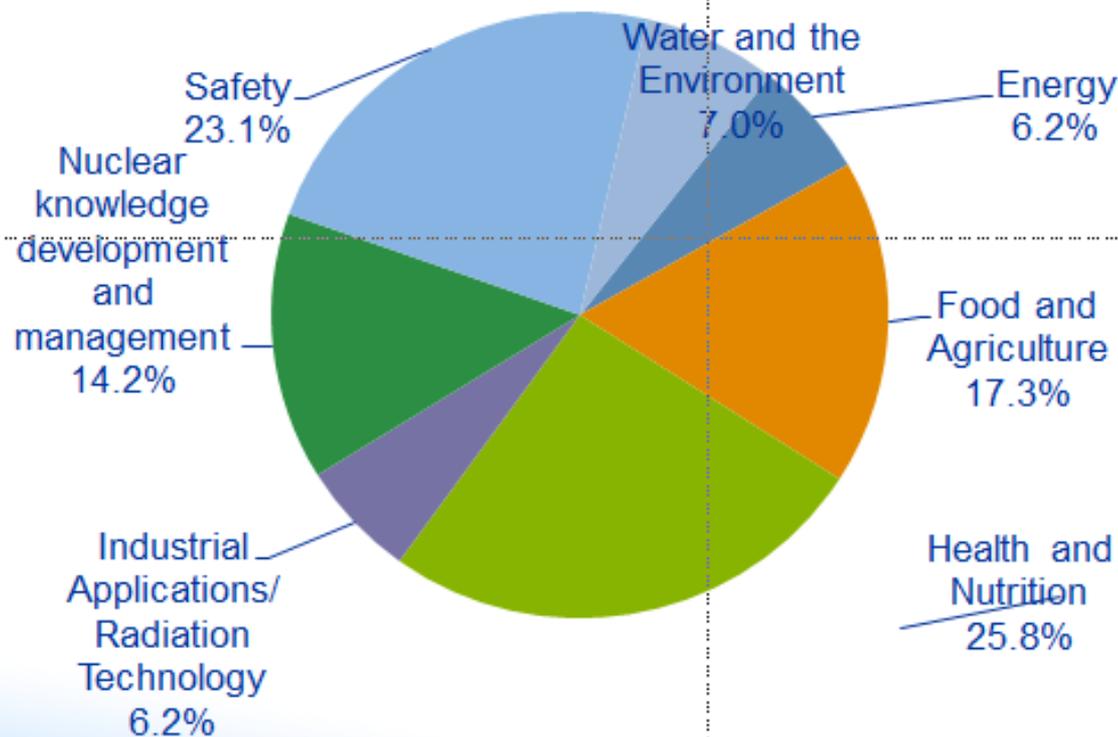
Furthermore.....

Board of Governors have specifically requested that TC projects involving radiation sources should only be submitted for approval if the Member State has achieved a certain **minimum level** of radiation safety

Overall TC Programme Areas

2018-19 TC programme

– about € 80 million/year from TC Fund



Nuclear Safety and Security: Helping States to Protect People and the Environment

Regulation: Setting safety standards and security guidance

Nuclear Installations: Advancing safe and secure operations

Radiation and Transport Safety: Protecting workers, patients, the public and the environment

Management of Disused Radioactive Sources

Nuclear Security: Upgrading capabilities, reducing global risks

Emergency Preparedness and Response: Raising levels of readiness

The Nuclear Safety Review: Statement

- **80% of IAEA Member States** need further assistance and support to have an adequate regulatory infrastructure consistent with the Agency's Safety Standards.
- Some Member States have **not yet developed a national plan for human resource development**, including competency and training framework for the regulatory body. There is a need to enhance safety-related capabilities, especially safety culture.

Most IAEA Member States at all levels of progress continue to need additional support from the IAEA

Issues to be addressed

- IAEA will adopt a **harmonized and integrated approach** to assisting Member States to apply the IBSS to strengthen RSI.
- There is a need to develop an **integrated transparent monitoring mechanism** for the activities being implemented.
- There is a need to **optimise and prevent duplication of efforts** to assist IAEA Member States who are overwhelmed by assistance through bi/multi-lateral agreements.
- There is a need to strengthen the **quality management procedures** for the activities developed and implemented by the all parties.
- There is a need to strengthen the **collation of information** about Member State's status, practices and needs

Proposed Solution

To facilitate an effective use of services and activities, it has been proposed that an **Integrated Support Plan for Safety (ISPS)** be developed for MS who benefit from IAEA support (TC, EBP, PUI and other mechanisms), which will involve all potential stakeholders and encompass all related Agency's activities.

Prioritizing support to Member States

Countries without an effective Radiation Safety Regulator	<ul style="list-style-type: none">• Priority will be given to assisting these countries to establish a Law, Regulations, a regulatory body and competent regulatory staff• Fostering high-level political commitment will be a high priority.• Once these are established, the countries will be treated as Group 2.• IAEA Safety Standards Series No.SSG-44, Establishing a National Radiation Safety Infrastructure, is particularly relevant for this group, with GSR Part 1
Countries with an effective Radiation Safety Regulator and without concrete plans to embark on NPPs	Priority will be given to assisting these countries to build their infrastructure for radiation safety and for protecting patients, workers and the public.
Embarking" Countries having decided to pursue NPPs or strong declared ambitions for NPPs	Priority will be given to assist these countries to build upon their radiation safety infrastructure and to establish all aspects of their nuclear safety infrastructure.
Countries with NPPs	This group of countries will already have a mature infrastructure for radiation and nuclear safety, and priority is more focused on peer-review missions.

Identification of Member States needs and development of national integrated support plan for safety

- In principle, Member States should take ownership of identifying their own needs vis a vis the safety standards and developing their own national Integrated Support Plan for Safety (ISPS) to meet those needs.
- But, they will still need support from the Agency
- Self-assessment is a key approach to identify the existing gaps and needs.

Provision of Support to Member States



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- TC and NS will ensure that all activities are coordinated/delivered through ISPS to prevent duplication and to optimize delivery of support in prioritized/logical sequence.
- Examples include:
 - a. Agency to continue assisting Member States in using the self-assessment methodology and tool.
 - b. Coordination, transparency and communication among IAEA Staff
 - c. The Agency will also work closely with Member States, i.e.: NLOs, competent authorities, regulatory bodies and other stakeholders.

Conclusion

The Agency will continue to:

- Play a central role in improving nuclear and radiation safety in its Member States
- Raise awareness of the need to improve nuclear safety nationally, regionally and globally
- Assist Member States, upon request, to develop and maintain a national integrated support plan for safety.