



# Partnerships and atoms for peace and development

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(Photo: N. Jawerth/IAEA)

Achieving the Sustainable Development Goals (SDGs) is not a task carried out in isolation: the 17 goals and their targets are a comprehensive approach to global development that relies on strong coordination. This is reflected in Goal 17 on partnerships. The IAEA and its partners form important strands of this global agenda by helping countries use nuclear science to meet their development targets and achieve a lasting impact.

“The SDGs are a major undertaking that no country, organization or person can reach alone; partnerships are vital to their success,” said Emma Webb, Head of the IAEA’s Strategy and Partnership Section. “The IAEA plays an active role in building and cultivating cooperation worldwide toward achieving these goals.”

As countries implement their national development strategies and plans, many turn to the IAEA and its partners to help them use nuclear science and technology to meet their objectives. Longstanding IAEA partnerships, such as the one with the Food and Agriculture Organization of the United Nations (FAO) and cooperation with the World Health Organization (WHO), allow international organizations to contribute their skills and resources in their respective areas of expertise to support development worldwide. Over 90 countries already have country programme

frameworks in place that identify areas of cooperation with the IAEA in support of national development priorities.

The IAEA, in cooperation with its partners, supports countries in building their capacities, expanding their networks and sharing knowledge through technical cooperation projects and coordinated research activities. This takes the form of training, fellowships, the provision of equipment and expert guidance, among others. Through this, professionals strengthen their knowledge, sharpen their skills and get the tools they need to achieve sustainable results such as improving health through radiation medicine (see page 6) and ensuring energy for the future by safely and securely adding nuclear power to a national energy mix (see page 15).

Science, technology and innovation are key dimensions of sustainable progress. Cooperation enhances knowledge sharing, technology transfer and evidence-based decision-making.

In line with the targets of Goal 17, international and regional IAEA projects provide a platform for developing and developed countries to join efforts and expand their knowledge of and access to scientific expertise as well as further technological innovation for development. They also enable specialists to work

collaboratively to examine and tackle issues, such as how to mitigate the climate change effects of greenhouse gas emissions from agricultural production (see page 26), and improve or learn new skills, such as 3D radiation therapy planning for cancer care (see page 8).

Through this scientific work, scientists can collect the data decision makers need for evidence-based policies and programmes (see Box). The strong emphasis on data and monitoring under Goal 17 provides further space for the IAEA and its partners to support results-oriented development planning and programming.

“The peaceful uses of nuclear science and technology have a unique role to play in responding to countries’ national priorities and in supporting sustainable development,” said Webb. “It is in part through these partnerships between the IAEA, governments and other entities, that science and technology can help support communities and can help deliver on the ambitious global commitment of the SDGs and advance the five ‘Ps’ outlined in the Agenda 2030 preamble: people, planet, prosperity, partnerships and peace.”



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(Photo: S.Loof/IAEA)



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## Precise progress

At each step of the way towards achieving the SDGs, scientists and officials need ways to track and understand their progress to refine and strengthen their efforts. In many cases, nuclear science and technology offer precise and effective ways to measure that progress and collect data to help shape policies. Some countries, like Thailand (see page 13), use nuclear techniques to study the effectiveness of nutrition programmes to improve health, while others, such as Bolivia (see page 22), use these tools to evaluate water resources to ensure clean and sustainable water supplies for the future. With such data, policy makers can take informed decisions, which can then be translated into national policies and programmes to help them achieve their national plans, goals and targets.

Combining precise scientific data and partnerships helps drive the development and reach of environmentally sound technologies. In some countries, like Sudan (see page 19), local organizations have teamed up with IAEA-supported scientists to scale up the use of irrigation systems optimized with nuclear data to conserve resources while ensuring good crop husbandry. Similarly, public–private partnerships in countries such as South Africa (see page 10) help to expand the use of a nuclear-based insect pest birth control method to stave off damaging insects. This helps save crops, improve livelihoods and protect and increase exports.

Such links between public, private and civil society organizations are an important dimension to how the IAEA cultivates cooperation in multiple directions and expands the practical application of nuclear science and technology.