



Nuclear
Sciences and
Applications



Securing A Better Future For All **Nuclear Techniques for Global Development and Environmental Protection**

Coordinated Research Activities Uniting the World Through Research

The IAEA's programme of coordinated research activities has been designed to stimulate and coordinate the undertaking of research in selected nuclear fields by scientists in IAEA Member States. The programme brings together scientists in research institutes in both developing and developed IAEA and FAO Member States to collaborate on research topics of common interest. Research, technical and doctoral contracts and cost free research agreements are awarded to Member State institutes for completion of designated research work. For each contract or agreement, one institute staff member is designated as the chief scientific investigator responsible for the progress of the research work. Preference is given to younger and to female researchers.

Through contracts and agreements with institutes in Member States, the coordinated research projects (CRPs) are implemented. Each CRP is a network of 10 to 15 institutes that work in coordination towards achieving the research objectives set by the design of the CRP.

The research is conducted at the participating institutes identified in the research contracts and agreements of the CRP. The IAEA acts as the sponsoring and coordinating body whereby an IAEA staff member—or project officer—is assigned to lead each CRP, which normally lasts between 3 and 5 years. A few years ago, a new type of CRP, called a 'doctoral CRP,' was introduced whereby PhD students in developing countries are paired with professors in developed country research institutions.



Quick Facts

In 2010

106 Member States participated in the programme of coordinated research activities

More than 1500 active contracts and agreements under 125 active CRPs

€ 6000 was the average IAEA contribution per contract per year

80 research coordination meetings held



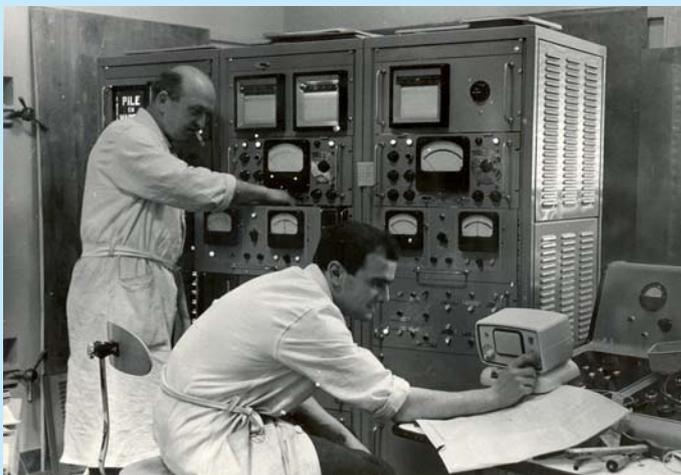
The research encourages the acquisition and dissemination of new knowledge and technology generated through the use of nuclear technologies and isotopic techniques in the various fields of work covered by the IAEA's mandate. The majority of CRP topics are concentrated in the areas of nuclear sciences and applications in agriculture, human health, industry, hydrology and terrestrial and marine environments. However, CRPs related to nuclear energy and economic studies, waste technology, radiation and radioactive waste safety and nuclear security are also covered by the programme.

The results of the CRPs are made available free to Member States and to the international scientific community via the IAEA's scientific and technical publications, as well as through other relevant national and international journals.

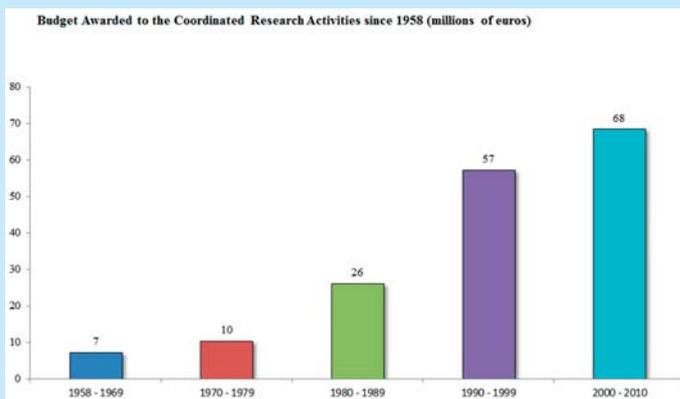


The Founding of Coordinated Research Activities

The idea for coordinated research activities came about in 1957, shortly after the establishment of the IAEA and its subsequent focus on studies in the field of radioactive waste disposal. By arranging for researchers in developing and developed countries to communicate and exchange information and expertise freely, these coordinated research activities would allow multiple countries to collaborate towards achieving a common goal.



The programme continued to evolve over the years and has handled a budget equating to over € 150 million since its inception. The chart below illustrates the increase in the budget in 10-year periods.



Transferring Results Across Borders

Conservation agriculture aims at improving the livelihoods of farmers through the application of three principles: (i) minimal soil disturbance, (ii) permanent soil cover and (iii) crop rotation.

One recently completed CRP on Integrated Soil, Water and Nutrient Management in Conservation Agriculture, in which unique nuclear techniques utilizing the stable isotopes ^{15}N and ^{13}C were used, has provided new and useful scientific data and knowledge.

The information demonstrated that conservation agriculture can benefit Africa, Asia and Latin America by creating higher crop yields through increased soil moisture retention, enhanced biological nitrogen fixation, retention of soil nitrogen and soil carbon sequestration. In addition, conservation agriculture has been shown to help enhance nutrient and water use efficiency.

The results of this CRP have paved the way for the implementation of projects in conservation agriculture under the IAEA's technical cooperation programme.

