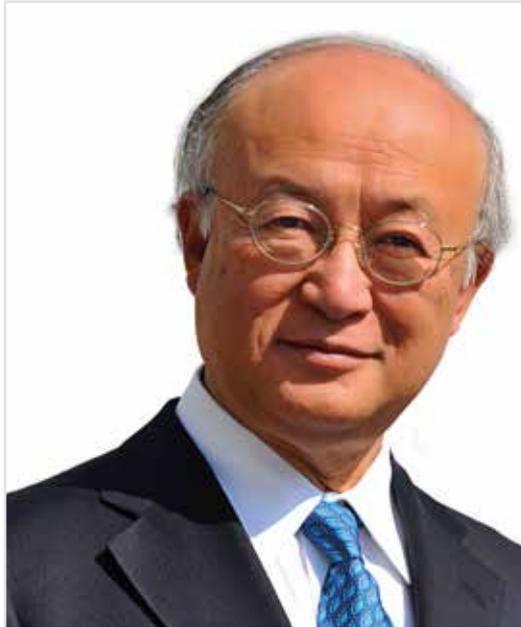


FOOD FOR THE FUTURE

The population of the world is expected to grow by a third to nine billion by 2050. In order to feed this growing population, global food production will have to increase significantly.

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Nuclear techniques can help to achieve all three of these goals. The International Atomic Energy Agency, working closely with the Food and Agriculture Organization of the United Nations, makes these techniques available to farmers and food producers in developing countries.

This special issue of the *IAEA Bulletin* has been produced on the occasion of the *2012 IAEA Scientific Forum*, which brings together experts and policy-makers from all over the world to consider how best to use nuclear techniques to increase food production, to control animal

and plant diseases that threaten food supplies and to guard against food contamination.

A key goal of this two-day meeting is to make Member States more aware of the important contribution that nuclear applications, made available through the IAEA technical cooperation programme, can make in this area and to help countries to improve food security for their people.

You can read about nuclear techniques developed and applied by the IAEA, such as plant mutation breeding, that are effective in increasing the quantity and quality of food and feed crops, as well as radio-isotopic technologies that help countries to make optimal use of water and soil resources.

Other nuclear techniques help to eliminate pests such as the tsetse fly, thereby reducing cattle deaths, and the fruit fly, enabling countries to increase production and exports of fruits such as oranges and lemons.

The IAEA played an important part in eradicating the deadly cattle disease rinderpest. Nuclear techniques also help to reduce the need for pesticides and drugs in food production.

Exposure to chemicals and pathogens in the food supply represents a serious threat to the health of millions of people, particularly in developing countries. We will also show how food irradiation is a proven and effective treatment to improve food safety. It reduces bacterial contamination, extends the shelf-life of foodstuffs and controls insect pests.

These are just a few examples of the work being carried out by the IAEA through hundreds of projects throughout the world. I warmly welcome all participants to the 2012 IAEA Scientific Forum and the readers of this Bulletin. I am confident that nuclear techniques will make an important contribution to improving world food security in the coming decades.

Yukiya Amano, Director General, International Atomic Energy Agency