

**IAEA Statement to the Special Meeting of ECOSOC on the Global Food Crisis**  
**20-22 May 2008, UNHQ-New York**

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Mr. President,

Soaring food prices have created many challenges to global food security and the current food crisis. As the United Nations reacts to this crisis, it is important to reflect on how the International Atomic Energy Agency may contribute to meeting these challenges in the medium and long-term in providing tools and integrated initiatives. As many other speakers before me have said, the underlying issues of food security need to be addressed through increased investment in agricultural research and technology transfer to ensure the sustainable intensification of agricultural productivity. For many years, the IAEA, through its Joint FAO/IAEA Division has been using state-of-the-art research and development isotopic and nuclear techniques to assist Member States in improving food security and achieving sustainable agricultural production in such areas as soil science, plant breeding, animal reproduction and health, insect pest control, and food safety and preservation. The IAEA also uses isotopic and nuclear techniques to assist States in improving land and water management, and even in studying human health and nutrition. Examples of the techniques can be found on our website and on our note linked to the ECOSOC Global Food Crisis webpage. Nuclear and isotopic techniques provide unique or substantial complementary value in addressing food security and safety. Nuclear techniques are of great socioeconomic importance as they are the only solution in certain areas, and combined with modern biotechnologies, are essential in providing more efficient ways of improving food availability, accessibility and affordability. In addressing today's challenges, we should also consider the future and what we can do to meet those new challenges, in particular the medium and long-term challenges that climate change pose for global food security and economic development.

Thank you, Mr. President.

Specific examples of the results of nuclear applications in these areas: [not to be read, but posted]

- **Crop improvement through the development of new mutant crop varieties** that can deliver higher yields and have better adaptability to climate change, such as high temperature resistance, drought tolerance, etc. Mutation induction also provides valuable biodiversity and material for crop improvement to better adapt to climate change.
- **Improvement of land and water management** to intensify agriculture production systems. By using nuclear techniques to assess the impacts of climate change and existing production practices on land resources and their constituents such as plant-available soil moisture and nutrients, they will contribute to the development of land and water management technology packages for better production practices in agro-ecosystems. These technology packages can

also help reduce greenhouse gas (GHG) emissions and enhance land carbon sequestration, thus contribute to the mitigation of climate change. Through application of nuclear techniques, improved water management will also increase the technical and economic resilience of agricultural production systems to climate change impacts.

- **Improvement in animal production and health** by enabling the provision of early and rapid detection of transboundary animal disease, optimizing animal reproduction cycles and breed management, and assessing local feed sources to improve animal nutrition.
- **Control of insect pests using the sterile insect technique (SIT)** which is species specific and environmentally friendly in reducing the need for insecticides. This technique can protect crops, livestock, and humans from major pests and the diseases they carry, and can help Member States to overcome phytosanitary and sanitary barriers to trade.
- **Improvement of food safety** through the use of ionizing radiation to enhance food safety for both sanitary and phytosanitary purposes to protect both crops and consumers.