Thank you Madam Chair.

Good morning. In his speech to the Plenary, the Director General of the International Atomic Energy Agency, Mohamed ElBaradei, spoke about the two vital roles of the Agency in the context of the Non-Proliferation Treaty: security and development. It is now my honour to address you about what the Agency does to make the development applications of nuclear technology available to its Member States, through the technical cooperation programme. Such cooperation has been enshrined in the Agency’s Statute since its inception in 1957, and its role has increased in importance in meeting pressing development needs.

Of the Agency’s current 138 Member States, 136 are Party to the NPT. Through technical cooperation, the Agency continues to play a major part in fulfilling the commitments made by the Parties to the NPT to the development role of nuclear technology, a role that was recognized and supported in the final report on Article IV of the 2000 NPT Review Conference.

Slide II: An Illustration

May I begin with an illustration of our work.

This picture is not a desert, but is close to desert conditions. As you can see, it is dry, flat, and virtually barren. This land is a small family farm near Marrakech in Morocco. Rainfall averages just a few centimetres a year, enough to feed some patches of shrubs and grasses. But these fields cannot sustain the trees and grains that small farm-holders harvest in the wetter and more fertile regions of the country.

This is subsistence living.

The work that we do, in cooperation with others, can change these conditions: it can make the soil more productive, and the way of life a little easier. In this semi-desert, nuclear technology can make a difference.
Slide III: The Impact of Technical Cooperation

This farmer is practicing a new approach, one that is called ‘biosaline agriculture’. The farm is now a demonstration site where Morocco grows plants in saline soils.

These soils contain too much salt for the survival or healthy growth of most crops—but not all. With nuclear technology, the soil conditions can be measured and monitored, and irrigation can be managed better. These tools are effective and safe, and can unpackage the complex interactions between soil, water and plants.

The farm is now cultivating eucalyptus and acacia trees, rapeseed, olive trees, and forage bush to feed pack animals and livestock. The farmer and his family have gone beyond subsistence: they can now sell surplus produce grown on the saline land.

Slide IV: The Agency’s Unique Role

As we have been recently reminded by Secretary-General, Kofi Annan, the ‘larger freedom’ promoted by the Charter of the UN encompasses freedom from fear and freedom from want. In these two dimensions, the Agency has a unique role to play. Alongside its safety, security and safeguards responsibilities, the Agency provides access to nuclear technology where this can improve the well-being and quality of life for people, especially in countries that would otherwise be unable to realise its benefits.

Why is access to nuclear technology important? In many countries, people benefit from this technology every day.

To give you some examples:

Nuclear medicine is used daily to diagnose diseases; cancer patients are treated and often healed with radiation therapy, ideally close to home; industry and agriculture use nuclear techniques as a matter of routine and in exciting new ways, as in our example from Morocco; and many countries use nuclear power for their energy supply.

There is an urgent need to help other countries benefit in the same way. I will now elaborate on these contributions in greater detail, by using just a few examples taken from our technical cooperation programme. The following slides focus on some of the Agency’s main areas of activity.

Slide V: Managing Water Resources

As water resources are put under pressure by increasing demand, there is growing interest in managing trans-boundary aquifers—large bodies of water stored in the Earth. Isotopic tools for identifying pollution and for defining the movement of water can show where pollutants travel and how the water moves across borders, such as the Nubian Sandstone Aquifer System between Chad, Egypt, Libya and Sudan. The objective is to secure clean, safe water for the growing population.

Given the increased reliance on groundwater to meet growing water needs, relevant international organisations, including the Agency, are developing a “World Groundwater Vision” to be presented at the Fourth World Water Forum in Mexico in 2006. This vision is intended to improve groundwater management, and show how to use technologies, such as isotope hydrology, for this purpose.
Slide VI: Agricultural Practices

Radiation-induced mutations allow millions of hectares of higher-yielding, or more disease-resistant food and industrial crops to be grown all over the world.

By using isotopes to determine optimal placement and timing of use, huge savings in fertilizer applications can be made, helping reduce the cost of farming and protecting the farming environment.

Developing and applying guidelines and principles for good agricultural practices are critical for ensuring the safety of food supplies. The Agency helps farmers to use nuclear and other analytical methods to achieve compliance with residue limits for pesticides and veterinary drugs.

The sterile insect technique has been used to eradicate the tsetse fly from Zanzibar and the screwworm from Libya, and is being widely applied to control fruit fly from several countries in the Middle East and Latin America.

Further, immunosassay technology, a fast and accurate method to measure proteins, has been used successfully to diagnose and therefore control trans-boundary animal diseases such as rabies in pigs and foot-and-mouth disease.

Slide VII: Human Health

Along with radiation safety, human health is the largest part of the TC programme, accounting for 24% of the resource investment in the current biennium.

Nuclear techniques are used to analyse the nutrient uptake of various target populations, including populations affected with HIV/AIDS for whom good nutrition is crucial.

Rapid identification of drug-resistant strains of malaria and tuberculosis using nuclear technology supports the implementation of strategies to control the spread of these terrible diseases.

In the area of cancer, a disease affecting more and more people all over the world, our activities include measures from prevention through nutrition, diagnosis using X-rays and nuclear medicine techniques, and cancer treatment with radiotherapy and radioisotopes. In an effort to meet the increasing demands in this area, the Agency has recently adopted an ambitious integrated approach for cancer management, under the name of PACT, Programme of Action for Cancer Therapy. This represents a major effort aimed to save or improve the lives of millions of cancer patients throughout the globe, working jointly with WHO and other major stakeholders.

Slide VIII: Protecting the Environment

Scientists know that the world's oceans influence climate change. The Agency's Marine Environment Laboratory in Monaco is the world's leader in the use of radionuclides to track ocean currents, and in the use of radioactive and stable isotopes to study the carbon dioxide held in the surface of the ocean.

Electron-beam flue-gas treatment in China and Poland has helped to substantially reduce sulphur dioxide emissions from coal power stations. The by-product of this process is an agricultural fertilizer.

The same technology has been used to treat highly contaminated factory wastewater.

Air pollution in Mexico City is considered to cause around 12,000 excess deaths per year. The Agency is working with local governments, scientists and health authorities to analyse air samples collected
from across the city. Nuclear techniques provide important new data about the size, type and level of contaminants in dust particles suspended in the air. Armed with this knowledge the local authorities can better understand and tackle the health dangers associated with this pollution.

Slide IX: Energy-generation: Options and Innovation

Many people believe that nuclear energy has a great potential to provide a sustainable and climate-friendly energy supply. For the developing world, where the greatest energy growth is expected, the Agency provides support in three key energy planning, building infrastructure, and nuclear power development and deployment, in world-wide international cooperation with both developing and industrialized Member States.

Expanding access to energy requires careful planning. The Agency develops planning models that it provides to energy authorities in Member States all over the world. These models transfer the latest data on technologies, resources and economics and provide a means to achieve sustainable energy planning.

In the future, the use of nuclear power will depend on continued innovation in reactor and fuel cycle technology. The Agency's International Project on Innovative Nuclear Reactors and Fuel Cycles, INPRO was established to bring countries together to identify promising innovative R&D directions. INPRO now has 22 members and includes developed and developing countries, technology holders and technology users, countries with established programmes and countries just contemplating starting a programme; NPT countries and non-NPT countries, nuclear weapon states and non-nuclear weapon states. To guide R&D, it has developed requirements that innovative concepts for the future should meet, including requirements for proliferation resistance.

Slide X: Multilateral Nuclear Approaches

The Director General of the Agency has emphasized the importance of strengthening the global non-proliferation regime, and of doing so in ways that facilitate — rather than restrict — the spread of peaceful nuclear applications for all countries. One possible institutional innovation is that represented by multilateral nuclear approaches, MNAs.

Last year, Mr ElBaradei convened a group of experts, pooling their personal capacity, to study various options for establishing multilateral control or oversight over proliferation-sensitive parts of the nuclear fuel cycle — specifically, those related to the enrichment of uranium, the separation of plutonium, and the disposition of spent fuel. The group's report to the Director General, issued in February, will also be distributed at this Conference.

The group's report highlights a number of possible options for multilateral nuclear approaches, or MNAs, and has undertaken to explore the pros and cons associated with each. In spite of the disparate views within the group, the report nonetheless concluded that MNAs deserve further study, and noted that the work of the group was not intended to mark the end of the road, but rather to serve as a milestone along it.

The MNA report has put forward "five suggested approaches". It proposes that "the objective of increasing non-proliferation assurances associated with the civilian nuclear fuel cycle, while preserving assurances of supply and services around the world" could be achieved through the gradual implementation of these five multilateral nuclear approaches.
The Agency hopes that this contribution to the consideration of the future use of nuclear technology can lead to greater confidence in the means to use it responsibly.

**Slide XII: Global Nuclear Safety Regime**

The Agency supports a Global Nuclear Safety Regime based on strong national safety infrastructures and widespread subscription to international legal instruments. These legal instruments include binding Conventions and non-binding Codes of Conduct as shown on the slide.

The Agency's main contribution to this global regime is its suite of harmonized and internationally accepted Safety Standards as a reference for the high level of safety required for nuclear activities worldwide. These Standards, developed with Member State assistance, reflect, in a consensual way, national regulatory rules and guidelines and embody good, and often best, practice.

As each Member State builds its safety infrastructure, the Agency assists them in ensuring its consistency through 'peer review' missions. The infrastructure must meet the requirements of the international Basic Safety Standards. In addition, the Agency has been assisting its Member States in their work for the prevention of nuclear terrorism by helping them to enhance their infrastructures for nuclear security.

In the past ten years, projects focused on the creation of radiation protection infrastructures have been implemented in 86 countries. More than 47 million dollars has been spent from the Technical Cooperation Fund for this purpose during that period.

**Slide XIII: Working with Member States**

We work by developing partnerships with Member States so that our programmes and projects are targeted to their development goals. We advise them on where nuclear technology has an advantage over other methods and techniques.

In the early years of the Agency's programme, this support was technology driven. Now, the programmes are development driven, in line with the Technical Cooperation Strategy. The responsibility for taking advantage of the use of nuclear technology lies with the Member States.

Almost all Member States being supported by our programmes have now developed or are in the process of developing a national plan for cooperation, called a Country Programme Framework. These plans identify the development needs and goals of the country, and the specific areas where nuclear technology can make a difference. They also specify the commitments that the governments themselves must make for projects and programmes to be successful.

Our objective is to help build an indigenous capability that becomes locally sustainable, so that the maximum potential benefits can be realized in the longer term.

**Slide XIII: Responsibilities of Membership**

Membership of the Agency carries with it responsibilities.

Increasingly, Member States are becoming both recipients and providers of assistance, true partners in the cooperation.
Numerous institutions in developing countries have acquired a capacity that they make available to other countries under the technical cooperation programme. We are seeing more and more instances of cooperation between countries facilitated by regional cooperation agreements. Regional centres have been developed by the Member States for training and other programme activities. Member States need to continue to invest physical and financial resources in these centres to ensure their viability in the region.

Clearly we need each Member State to fulfill its financial obligations whether this is payment to the Technical Cooperation Fund or contributions to the cost of projects, now called National Participation Costs.

But there are other opportunities used by governments to demonstrate their commitment to development. One is through steering the cost with the Agency for instruments and equipment. In 2004, some 3.7 million dollars was provided by Member States to share the cost of their programmes, which allows us to expand our impact in these countries.

We also look to Member States to foster partnerships with international funding organizations, with regional development organizations, or with any potential contributor who can expand the scope of the programme and increase its impact.

There are many examples. Let me just recall one.

Through the efforts of the Coordination Office of the African Union’s Pan African Yesto and Trypanosomiasis Eradication Campaign, the major partner of the Agency in this field, the African Development Bank has approved a loan and grant totaling 15 million dollars to Ethiopia for the Agency-supported Southern Tsetse Eradication Project (STEP). This is an important development, in that Ethiopia and the Agency have now secured a partner willing to commit substantial funding to the project.

Slide XIV: The Agency Has Responsibilities As Well

The Agency of course has its own responsibilities. With finite resources made of voluntary contributions from Member States, we provide experience, expertise and know-how from around the world. And overall, we see our role as a facilitator for development, rather than the provider.

The Agency also has a responsibility to support the efforts of least developed countries. Just over 90% of the technical cooperation programme is devoted to these countries, and this share will have to increase further in the future. Nuclear technology can play a meaningful role in their human, environmental and socio-economic development in areas of health, agriculture, and water resource management, amongst others.

Let me give you some relevant figures for the overall programme. In 2004, approximately 2600 experts and lecturers were given assignments through the programme; nearly 2300 people participated in meetings and workshops; there were more than 2000 participants in training courses; and the programme placed more than 1400 fellows and visiting scientists.

A total of 711 national projects and 224 regional projects were active during the year 2004. This slide shows the breakdown of the programme per area of activity, where you can see that the major areas are human health and radiation safety.
Slide XV: What Does the Financial Picture Show?

In comparison with major development organizations, the Agency has relatively modest funds. But, as I have described to you, we have a unique and crucial role based on the contribution that nuclear technology can play.

Our programmes are developed in partnership with our Member States and the programme formulation is based on their requests. To effectively use its financial resources, the Agency's TC programme needs to have timely and reliable information about the amount of funding that will be available.

For this purpose, a target is set each year for the Technical Cooperation Fund, and all Member States are strongly encouraged to pay their full share of the Fund target in a timely manner. The more predictable our funding is, the better job we can do in planning and delivering projects.

All payments to the Technical Cooperation Fund are used for the projects requested by Member States. Payments normally come in during the year of implementation of projects. If the payments do not come in, the impact of the entire programme is, of course, weakened.

Slides XVI - XVIII: Looking Ahead

This year, the Agency Secretariat and Member States worked together to draft the new Medium-Term Strategy for 2006-2011. This important document reflects the strategy, directions and objectives of technical cooperation within the framework of the Agency's mission. It re-emphasizes common planning and resource-setting, based on the needs of Member States and proven nuclear technology applications, and positions technical cooperation as a cross-cutting Agency mechanism, supporting all Member States' programmes.

Throughout the UN system, there are initiatives that aim to improve the well-being of people all around the world and working towards realizing the Millennium Goals.

Nuclear technology provides specific tools, which can be applied to development problems appropriately and effectively, whilst not contributing to nuclear proliferation. This is the essence of the "Atoms for Peace" concept, which launched the International Atomic Energy Agency in the 1950s and it is the mechanism by which the Agency facilitates the realization of the relevant articles of the NPT.

The Agency will continue to do all it can to sustain and expand the peaceful contributions of nuclear technology. We know that we can make a difference. Our ability to do so will be greatly enhanced:

- By assured, predictable and sufficient funding from all NPT States for the Agency's TC programme
- Through new partnerships developed with the assistance of Member States and regional groupings of Member States

With the continued support and commitment from Member States that want to share the benefits that nuclear technology can provide to everyday life.

In the final analysis, our shared ambition is that these benefits reach the people who need it.