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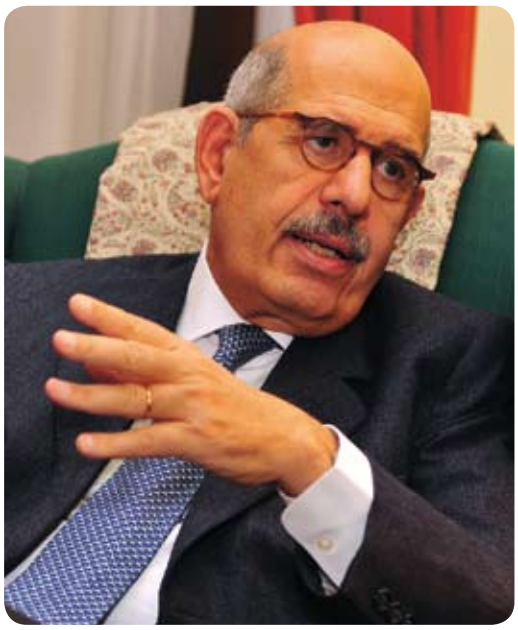


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Giovanni Verlini spoke with outgoing IAEA Director General Mohamed ElBaradei about his time at the IAEA and what lies ahead for the Agency.

Question: When you were first elected to head the IAEA in 1997, you focused attention on three pillars of work — nuclear safety, safeguards, and technology — and the importance of balance among them. In what ways is this nuclear balance important today?

Mohamed ElBaradei: The Agency's mandate is unique in that it addresses both security and development. Our job is to prevent the spread of nuclear weapons with a view to achieving a world free of them, and to make the benefits of nuclear technology available for peaceful purposes to developing countries. You cannot have development without security and vice versa.

One of our failings as an international community — and often as human beings — is that we too easily address symptoms rather than causes, or deal with issues in isolation rather than holistically. In the case of nuclear proliferation, the international community would be more effective if it simultaneously asked "What are the many reasons why some countries seek to obtain weapons of mass destruction?" and tried to address those, instead of simply insisting "No-one else can have these weapons." That means addressing issues such as poverty and the lack of good governance and democracy. The huge divide between the "haves" and "have nots" of this world creates a deep sense of injustice which makes it easier for extremists of all stripes to preach violence and encourages efforts to obtain nuclear or other weapons of mass destruction. We also need to address festering conflicts that have been going on for decades and which, again, can lead parties to such conflicts to seek to acquire weapons of mass destruction in order to achieve parity with rivals or domination over them. The Middle East, South Asia and East Asia are cases in point.

The remedy for this is a sustained development effort to enable every human being to live in freedom and dignity, plus meaningful dialogue to address these persistent conflicts on the basis of fairness and equity.

As far as the work of the Agency is concerned, the importance of all areas of our work — technology, safeguards, safety and security and technical cooperation — has grown exponentially during the last 12 years. Member States expect more and more of us in all of these areas.

Countries have different priorities in terms of what they expect — whether the emphasis is on verification or on technology for development — and it is

important that they see their priorities adequately reflected in the work of the Agency. Getting the balance right is not easy, but it is a must to keep the Agency and international cooperation going.

Q: You and the IAEA were awarded the Nobel Peace Prize in 2005. What effect did that honour have on the Agency, and on your own work as Director General?

M.E.: The award represented a recognition of the hard work of all of the staff of the Agency. I am immensely proud of all of them, of their professionalism and commitment to the Agency's mission. Everyone likes recognition for exceptional achievement and I believe our staff have taken even more pride in their work since we got the Nobel Peace Prize.

For myself, the award was a clear validation that we were on the right track and should continue doing what we were doing, for the common good of humanity, and not be sidetracked by subjectivity, short-sightedness or cynicism. You may remember that it came at a time when we had all been under particularly intense pressure. I suppose you could say it represented vindication of our work in the court of public opinion. It gave us great visibility and made us a household name throughout the world. That visibility and trust in our integrity gave us greater moral authority to continue "speaking truth to power" and the courage not to be deflected from the core values and principles of the Agency — professionalism, independence, objectivity.

Q: You are leaving the IAEA at a time when a number of crucial issues are taking shape: a proposal for a low enriched uranium reserve under IAEA auspices to guarantee assurance of supply; the threat of nuclear proliferation at a time when the international community is preparing for the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT); a possible expansion in nuclear power on a global level. What role can the IAEA play in dealing with these issues, and how are they going to affect the IAEA as an institution?

M.E.: The world is going through a major transition in terms of challenges and opportunities, the way it organises itself and the values it seeks to live by. As for the Agency, it too faces huge challenges, but also great opportunities. Scores of countries have told us they are considering introducing nuclear power. That will mean a major increase in the Agency's workload in technology, verification, safety and security. Our colleagues in Nuclear Energy are already increasingly focussed on helping what we call "newcomers" to ensure that, if they decide to build power reactors, they do it in a responsible manner.

In technical cooperation and development, demand for our assistance in human health, water, agriculture and the environment — to name but a few areas — will continue to grow. We need to focus more on being a multiplier — helping countries train specialists in nuclear medicine or what have you — and less on supplying equipment, important though that is. In other words, as the saying goes, we should provide fishing rods and not fish in order to make development sustainable.

There have been exciting developments in the nuclear disarmament field, so much so that I leave office with a greater sense of hope probably than at any time in the past 12 years. Nuclear disarmament is back on the agenda and there is a real possibility of major cuts in the arsenals of the nuclear weapon states and concrete steps to move us towards nuclear disarmament. It would be a natural development of the Agency's work to take on the verification role for many of these arms control measures.

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Q: You have raised the vision of a nuclear-free-world in many of your statements. What roles can the IAEA play in the future to bring that vision into closer view?

M.E.: The NPT was developed in 1970. Its goal — and this is often forgotten — is a world free of nuclear weapons. That means that no more States should acquire such weapons, but also that the nuclear powers should disarm. Obviously, we are a long way away from that. Nevertheless, the NPT has been successful to an extent in limiting the spread of nuclear weapons. The fact that nine countries have nuclear weapons is nine too many — but it is a lot less than

the several dozen which President Kennedy worried about in the early 1960s.

Nevertheless, the world has changed considerably since 1970. Nuclear technology was once thought to be the preserve of a few developed countries, but we have seen how it could be acquired with remarkable ease by other countries. A growing number of countries are what I call "nuclear weapons capable" — they have mastered uranium enrichment or plutonium reprocessing, which means they could manufacture nuclear weapons within a few months if they chose to due to changes in their security situation. We have also, most disturbingly, seen a thriving clandestine network trading in nuclear technology which has dramatically increased the risk of nuclear terrorism — in my view the number one threat the world faces today.

We therefore need to completely rethink the entire nuclear order. And the big nuclear powers must take the lead by moving seriously to divest themselves of their nuclear weapons. As President Obama rightly points out, only by taking serious steps towards disarmament will the weapon states acquire the "moral authority" to expect the rest of the world to refrain from ever acquiring nuclear weapons. The failure of the weapon states to demonstrate a serious commitment to achieving nuclear disarmament — an obligation which they took on under the NPT — has led to a worrying cynicism about the non-proliferation regime among many non-nuclear-weapon states that has made the regime inadequate and fragile in many respects.

For a long time it was fashionable to regard advocates of nuclear disarmament as naïve idealists. People thought "it can never happen." For many years, I felt like one of a few lonely voices, blowing in the wind. So I have been greatly encouraged in the last few years to see prominent Cold War statesmen and strategists such as Henry Kissinger, Sam Nunn, and many others, come to the conclusion that nuclear weapons are a grave threat to us all and that the only solution is to scrap them completely. I do not under-estimate the difficulty of getting to zero and we need to start working now on a security system that does not depend on nuclear weapons. But the fact that hard-headed veteran statesmen, and current leaders such as Barack Obama, Dmitry Medvedev and Gordon Brown, now see this as a necessary goal gives me hope that it might happen in my children's lifetime, if not in mine.

We have succeeded in largely eliminating chemical and biological weapons, so doing the same for nuclear weapons should not be beyond us. I am gratified that nuclear disarmament has become a mainstream agenda item again. As I have said many times, without disarmament, nuclear non-proliferation is not sustainable because any regime has to be based on fairness and equity.

Q: A big issue facing the international community comes from the spectre of terrorism, of threats from non-State actors. Do you see States granting the IAEA a bigger role when it comes to matters of nuclear security and prevention of terrorist acts?

M.E.: Nuclear security is primarily the responsibility of Member States, but it is clear that no country can address terrorism on its own and that coordinated and cooperative international action is needed. This is natural territory for the Agency. The 9/11 attacks demonstrated the sophistication of terrorism, of extremist groups. I am pleased with the speed with which the Agency built up a major nuclear security programme in the wake of those attacks. We have helped to ensure that radioactive sources and nuclear material have been made much more secure in many countries, but much remains to be done. The risk of a terrorist group exploding a so-called dirty bomb in a major population centre is very real and we cannot rest on our laurels. We still get several hundred reports every year of thefts or other unauthorised activities involving nuclear or radioactive materials. Most of the material that goes missing is never recovered. So we cannot afford to slacken in our efforts. I believe the Agency's role in helping Member States to guard against the threat of nuclear terrorism will inevitably continue to grow.

Q: Do you think that the IAEA's initiatives in development and cooperation are proving to be effective in dealing with the challenges posed by today's world?

M.E.: I believe we do very effective work in the development area, but it is much too little compared to the needs of developing countries. I am immensely proud, for example, when I see cancer patients in Africa getting access to nuclear medicine, radiation therapy and other methods of cancer control thanks to the work of the Agency. To touch even a handful of lives in the way we can is a wonderful thing. But I am simultaneously saddened by the realisation that what we are doing is only a drop in the ocean — that for every human being whose life is saved or prolonged by early diagnosis and treatment, countless more will never have access to it. Something is clearly wrong in a world where we always seem to be able to find the money for ever bigger and nastier weapons, but funding is mysteriously unavail-

able when it comes to providing food, education and health care to the billions of our fellow human beings who live in sub-human conditions, in misery and despair.

But that's just one area. In nuclear power, we are the main vehicle for technology transfer to the developing world. Most of the new countries considering introducing nuclear power are in the developing world and we have highly specialist expertise to offer them. They are queuing up for our assistance in assessing their energy needs and we help them to embark on the long and complex road to building a power reactor — if that is the path they choose. It is not our job to lobby for nuclear power. Indeed I often have to tell countries "you are just not ready for this." But if a country makes the sovereign decision to proceed, the Agency will be there for them.

I should add that we must continually strive to make our technical cooperation projects in all areas as effective as possible and ensure that they meet the real needs of recipients. Frankly, countries' priorities are not always what we think they are. We need to get closer to the recipients. At the moment, we are looking into whether it might make sense to establish a number of regional IAEA field offices. I have always believed that we should focus on doing fewer but larger projects with real impact. We should also be quicker in terminating projects which have outlived their usefulness.

Q: Of all the things you have set out to do as Director General, what accomplishment or initiative do you think will be the most lasting?

M.E.: It is for others rather than me to assess the accomplishments of the last 12 years. And of course any accomplishments are those of all Agency staff, not just of the Director General.

However, a number of things give me satisfaction, not least the fact that the Agency has managed to continue providing high-quality services to Member States in the fields of development and security despite many years of zero budget growth. And as a result, the IAEA has become one of the most prominent international organizations. We are highly regarded, and more importantly trusted, by the general public and by our Member States, as a competent, objective and efficient international institution. I believe we have given international organisations a good name and shown what they can achieve if properly empowered. We have also demonstrated, at times of crisis, the value of an international institution that is impartial and objective.

The way we implement safeguards has changed radically. The amount of material and the number of facilities monitored by our inspectors have grown steadily and we have successfully adopted new technologies such as remote surveillance, environmental sampling and satellite monitoring.

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We have created a nuclear security programme virtually from scratch in a very short time. We are at the heart of the global nuclear safety regime. Indeed our safety standards have recently been adopted by the European Union. We have helped to boost food production and secure sources of fresh water in developing countries through the use of nuclear techniques. And the Agency has been singled out for the quality and efficiency of its management practices.

However, to be fair, I should mention the downside. Our technical cooperation activities are still too small and too reliant on voluntary funding. Too many countries still do not have a comprehensive safeguards agreement or an additional protocol in force. Our legal authority and funding remain inadequate. It gets a little frustrating, to put it mildly, to have to jump through the same hoops at the start of every budget cycle to get minimum resources so we can do what we are asked to do in a credible manner. After a turbulent process this year, we recently managed to secure a budget increase of around 5.4%. Although this was exceptional among UN system organisations, most of whom are having to live with zero growth, it is still not sufficient for the Agency to keep up with its growing responsibilities. That means, unfortunately, that the budget discussions will continue in the years to come.

One initiative which I hope will come to fruition in due course is my proposal to establish multinational control of the nuclear fuel cycle, starting with a low enriched uranium bank under Agency auspices. I believe some such mechanism is essential to guarantee that countries which have, or are contemplating, nuclear power plants will have a secure supply

ary Experience

of fuel to run their reactors. It should reduce or eliminate the incentive to acquire enrichment or reprocessing capabilities which could be misused to make weapons in a short period of time. Our ultimate aim should continue to be the universal multinationalisation of the fuel cycle.

There has been good support for this proposal by many countries, but many others remain distrustful. I hope an agreement on the merit of the proposal will emerge soon. What is primarily required is the building of bridges of trust among Member States. Once that is achieved, all the technical and legal issues can easily be resolved.

Q: What would you say are the challenges lying ahead for the IAEA? Is the IAEA equipped to deal with them?

M.E.: The most basic challenge will be to keep pace with the ever-growing demands from Member States for Agency services. As I said earlier, the Agency's workload is certain to increase as more and more power reactors come on stream in the coming decade. I could talk at length about the need to secure adequate funding. Suffice it to say that the Commission of Eminent Persons, which I established under the chairmanship of former Mexican President Zedillo to look into the future of the Agency, called last year for our budget to be doubled by 2020. It also recommended an immediate cash infusion of 80 million euros to fix our dilapidated infrastructure. I sincerely hope that Member States will come to understand that this goal must be achieved if the Agency is to continue to fulfill its mandate.

The problem of human resources will become more acute. We are already having trouble replacing nuclear engineers and scientists approaching retirement. There are simply not enough highly trained young people coming out of the world's universities. And we will have growing difficulty in persuading graduates to work for the Agency rather than take up possibly more lucrative positions in the private sector. Agency rules do not always make it easy to attract the best talent.

Another key challenge will be to maintain the Agency's independence and objectivity, which are vital for our credibility. That is easily said but not so easily done. The Director General can come under enormous pressure at times to say what some Member States or others would like him to say — about the nature of a particular country's nuclear programme, for example. It is imperative that the Agency should resist such pressure and stick to the facts. The Agency's verification reports could make the difference between war and peace. Every word must be weighed carefully and we must never depart from the highest standards of impartiality and objectivity. Throughout my tenure, I insisted that the Agency must adhere to certain basic principles, in addition to objectivity and impartiality, which in my view have been the key to our success: fairness, due process and independence.

You ask if the Agency is equipped to deal with the challenges. Well, in addition to adequate, stable and predictable resources, the Agency also needs sufficient legal authority to do its job properly. Comprehensive safeguards agreements plus the additional protocol should become the norm. We also need the technology for environmental analysis and satellite monitoring, among other things, in order to ensure our independence.

I hope that all Member States will join the safety and security conventions and adhere to all Agency standards. Our system of peer reviews — in which, for example, countries submit their nuclear safety systems to scrutiny by experts from the Agency and other countries — has proved immensely valuable. Experts and practitioners share experiences and best practices and everyone benefits. Peer reviews are voluntary at the moment, but I see no reason why we could not move towards making them binding in due course.

Q: What would you like to say to the staff of the Agency as your term draws to an end?

M.E.: I would like to say that it has been an honour and a privilege to work with such talented and dedicated colleagues. All the staff have to pull together to make things happen — it is not just a single individual or group, it is always team work. I wish I had had the time to get to know every member of staff, particularly those whose work is less visible. But I should reiterate one last time that I have greatly valued the dedication and commitment of every single one.

The UN's High-Level Panel famously described the work of the Agency as an "extraordinary bargain." For me, working here for the past quarter century has been an extraordinary and enriching experience which I will continue to treasure.

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