

## Dr Hans Blix: “Building confidence”

*Editor's note:* Recently Dr Blix, IAEA's Director General, addressed the sixth annual symposium of the European Safeguards and Development Association on the rôle of safeguards within the framework of international collaboration. The following interview is based on those remarks.

*Q: In the overall structural framework of international non-proliferation, how does a country that has foresworn nuclear weapons manage to inspire maximum confidence in its neighbours and the world at large that it will stick to this commitment?*

**Dr Blix:** One way is to legally formalize the commitment by adhering to an international treaty. In most cases, this takes the form of adherence to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). It may also take the form of adherence to a treaty establishing a nuclear-weapon-free zone. So far, the only existing one is the Treaty for the Prohibition of Nuclear Weapons in Latin America (Tlatelolco Treaty). The treaty commitment forms what one might call a 'legal threshold'. Even if the individual motivation behind the commitment were to erode, the commitment, once made, remains a barrier: perhaps not insuperable, but significant.

However, a signature on a treaty may not be sufficient by itself to generate the maximum level of confidence in such a sensitive matter as a State's commitment to non-proliferation. Treaties have been broken. Therefore, a system of verification is needed that will provide continuous assurance that a State is living up to the non-proliferation commitment.

*Q: What rôle do safeguards play within this framework?*

**Dr Blix:** The safeguards system was designed to fill the rôle of verification. It constitutes a monitoring system providing confidence that monitored activities are purely peaceful. Safeguards are therefore a confidence building measure – the most advanced that exists. In the case of the NPT and the Tlatelolco Treaty, this monitoring covers all present and future nuclear activities of the



States concerned. In other cases, only individual installations or identified material are covered and assurances can only be given about them and not about the totality of activities within the country.

With this in mind, safeguards play a limited but important rôle in the overall scheme of measures that constitute the so-called non-proliferation régime. To generate confidence, they must be capable of detecting possible breaches of commitments with such promptness that other States would have time to mobilize the means of inducing respect for the non-proliferation pledge.

Seen against this characteristic, it may be right to say that the risk of detection should be such as to deter diversion. In the normal case, however, no deterrence is needed. States do not invite inspection to deter themselves from diversion, but to achieve verification confirmation. The safeguarding function is there exclusively to create the added confidence that is attained through verification. It should be noted, however, that verification measures can only address what is or has taken place; they cannot verify the future and therefore can say nothing about the future intention of States. They cannot read the minds of Governments. This is an important limitation.

*Q: How much confidence does the present system of IAEA safeguards permit?*

**Dr Blix:** Each country must assess for itself the answer to this question. Nevertheless it is possible to outline some important factors on which the answer will depend.

Of primary importance is the thoroughness of safeguards operations. This does not mean that safeguards must be unduly intrusive. But they must be sufficiently thorough to be credible and to be perceived as credible.

If they are not, then they have missed their purpose of creating confidence. Since States accept safeguards in order to create confidence, they should accordingly see it as being in their direct interest that safeguards operations are thorough. How much is 'sufficient' is, of course, a matter open for discussion.

Another important factor is independence of safeguards operations. The credibility of safeguards is directly linked to the credibility of the organization carrying them out. The fact that an impartial international organization with world-wide membership is responsible heightens the credibility of the national or regional systems of accounting and control of nuclear material.

A third factor is the scope of safeguards coverage. Maximum confidence is possible when all present and future nuclear activities are covered by safeguards, as is the case for parties to the NPT or the Tlatelolco Treaty. In the case of safeguards accepted outside these multi-lateral treaties, monitoring may apply only to individual installations or identified material. Such monitoring, of course, gives no general assurance about non-diversion within the country, only an assurance regarding the particular installations or material safeguarded.

*Q: What sanctions do exist in the event of breaches?*

**Dr Blix:** Whether we like it or not, executive power – economic, military, or other – remains in the hands of individual States. There are, accordingly, no centralized sanctions which would automatically be applied by organs of the world community of nations as a result of breaches in safeguards or arms control agreements. This is not to say that no reactions would occur to such breaches. Nor that such reactions as might be anticipated could not have a deterrent effect. But it does imply that the sanctions – political or economic – would have to be applied by individual States, perhaps acting together and possibly after a decision by the UN Security Council.

*Q: Do you think the rôle of safeguards is accurately perceived by the general public?*

**Dr Blix:** I think it is safe to say that the public at large has little idea of what safeguards can and cannot do. Even the very term seems confusing. Perhaps even worse than a lack of knowledge about safeguards is the prevalence of misconceptions about them. We who deal with safeguards have a duty to try to create a correct image of them.

*Q: What are some of these misconceptions?*

**Dr Blix:** The most common one is that safeguards are analogous to some police measures aimed at preventing the diversion of nuclear material to military purposes. When you declare that inspectors cannot

stop a diversion, there is likely to be the disappointed comment that safeguards evidently have no teeth. Such reactions reveal a very common lack of awareness of how the international community functions. International organizations are not directly entrusted with enforcement powers and could not be given powers that are sufficiently strong to be meaningful in the face of States violating pledges.

So safeguards are *not* police measures. There is no international police with executive power. How would such a police cope with a State that violated some obligation? Declare war? Safeguards cannot by themselves physically stop any country from doing anything. Instead, they are part of a larger set of measures which, taken together, offer a good deal of assurance against the spread of nuclear weapons to further countries.

An important point here is that international organizations are sometimes given the task of performing impartial enquiries or of sending teams to check that armistices, truces or other arrangements are respected. Peacekeeping operations. The acceptance of and the presence and performance of such teams are apt to increase confidence in the continued respect for the arrangement. Even though the teams could do little more than report violations, should they occur, the reports could trigger meaningful reactions by States.

So it is not surprising that an international organization – namely the IAEA – has been entrusted with responsibility for implementing the international safeguards system under both the NPT and the Tlatelolco Treaty, as well as various other bilateral and multi-lateral arrangements. Although not surprising, it is nevertheless a novel feature. States have not long had the habit of inviting on-site inspection and have traditionally been jealous about any foreign presence on the territory. Safeguards must be performed with respect, but not subservience. Their independence and credibility is their specific value to the States in which they are performed.

*Q: How would you assess the system's past record?*

**Dr Blix:** Experience we have had with the present system of safeguards has been reasonably good. There have been growing pains to be sure, but with the rapid growth we have witnessed over the last few years some pain was inevitable.

*Q: What are your thoughts on the continuing evolution of the system?*

**Dr Blix:** We must expect there will continue to be some difficulties in the future, but with the rapid growth of nuclear power during the previous decade now tapering off to a more modest pace, there is an opportunity to consolidate our operation and introduce new equipment. This should make possible an increased

level of confidence in the assurances provided by safeguards against the horizontal proliferation of nuclear weapons.

As we look to the future, it can be foreseen that the number of nuclear installations and the amount of nuclear materials will be growing along with the knowledge and technical capability to make nuclear weapons. With determination and adequate resources, any State with a sufficiently well-developed industrial infrastructure could make them. By themselves, safeguards could not prevent this: they can only testify to States' continued adherence to their non-proliferation pledges.

The existence of this trend would require from safeguards, however, growing sophistication of the equipment, methods and approaches. This will be needed both in order to keep up with the level of confidence desired by the international community, and to be able to perform the increasing amount of the verification work at a cost to be considered reasonable by Member States.

*Q: Are safeguards worth the costs, given practical limitations and restraints?*

**Dr Blix:** All too often we hear from a few Member States that safeguards are unduly expensive or otherwise burdensome. While safeguards clearly do entail costs as I have noted, they also return something of great value – namely, international confidence that the safeguarded activities serve only peaceful purposes – and thereby reduce tensions which might otherwise exist. It is precisely to generate this confidence that States invite the IAEA to verify their nuclear activities. In order to produce such confidence, safeguards must be effective and above all credible. Creation of confidence must be the joint aim of both the IAEA and the Member States in which safeguards are carried out. A grudging acceptance of safeguards is not the best way to produce a maximum of confidence; rather safeguards should be viewed as the service which they are to States.

Of course, safeguards are not free of costs. The Agency now spends more than 30 million US dollars to carry out its world-wide safeguards responsibilities. While this may seem like a large amount, the cost per kilowatt/hour produced is really quite marginal. IAEA expenditures are not the complete cost of safeguards, because each State with nuclear facilities must invest in a national system for accounting and control of nuclear material. But even when national costs are included, I do not believe that safeguards are too expensive.

*Q: Europe is a particular area of IAEA safeguards activities. Why?*

**Dr Blix:** I think it is fair to state that Europe is today at the very forefront of nuclear technology. Several countries in Europe already obtain more than 30% of

their electricity from nuclear power, and more countries there will be able to reach this level by the end of the decade. Work on advanced reactors such as the Liquid-Metal Fast Breeder Reactor [LMFBR] is well-advanced in several European countries. Virtually every component of the nuclear fuel cycle is to be found in Europe and several countries already can boast a complete fuel cycle. In many cases, these fuel cycle facilities are prototypes or state-of-the-art facilities. And of course, to complete the picture, three of the five nuclear-weapon States are part of Europe.

With more than half of the world's nuclear reactors located in Europe along with sophisticated fuel cycle facilities, it should not be surprising that more than half of the IAEA's safeguards activities are directed toward operations in Europe. However, this certainly does not mean that countries of Europe are seen as particular proliferation threats or that they are 'over-safeguarded'.

Any international organization such as the IAEA is based on the sovereign equality of its Members. Therefore, it cannot allow itself to treat Members differently. In establishing the extent of safeguards activities in various Member States, the Agency uses the same criteria regardless of which continent the countries happen to be in. We do not subjectively ask for more in one State than another. Moreover, the amount of inspection effort to be carried out in any country is the subject of negotiation with the government authorities.

In that part of Europe which makes up the European Atomic Energy Community [EURATOM], a unique situation exists because the IAEA safeguards system operates in parallel with the multinational system of the Community. The relationship between the IAEA, EURATOM and its Member States is governed by three agreements which came into force between 1976 and 1981. This relationship is one which is still evolving, but I believe it is fair to say that it has been an effective and co-operative one. We anticipate that the co-operation will continue on this basis in the future, and I would hope that Europe would wish to serve as a model for other parts of the world.

Much of the world rightly looks to Europe as a leader in the nuclear field and as a model for nuclear development. The rôle of nuclear leader carries with it commensurate responsibilities in the area of non-proliferation. I would submit that Europe as a whole, and the individual States which are part of the continent, must be leaders in maintaining the barriers to proliferation of nuclear weapons. The example it sets in accepting safeguards is also of great significance to non-European States. This acceptance also has some importance for detente.

*Q: The NPT comes up for review in 1985. What issues do you see arising at that conference?*

**Dr Blix:** The NPT remains the centerpiece of the world-wide effort to check proliferation, despite criticism

directed at it by some States and despite the fact that adequate non-proliferation pledges can be made in other frameworks.

Yet unless tangible progress on nuclear arms control is made by then, it is likely that much complaint will be voiced about the failure of the three nuclear-weapon States party to the NPT to fulfil their commitment to pursue nuclear disarmament. A particularly sore point will probably be the lack of progress on a comprehensive test ban treaty. In the 1963 Limited Test Ban Treaty, the nuclear-weapon States explicitly recorded their determination to achieve a comprehensive ban on all nuclear tests for all time and they reaffirmed this determination in the NPT itself.

It is clear to me that a continuing lack of progress on nuclear disarmament would eventually undermine the NPT barrier to horizontal proliferation. Perhaps more significantly, it could also undermine the most important barrier to horizontal proliferation, which, as I suggested earlier, is the conviction of States that it is in their own

security interests not to possess nuclear weapons. There is no doubt that positive steps towards nuclear arms control and disarmament would be of immense value in the effort to limit horizontal proliferation and also to promote the peaceful uses of nuclear energy.

The industrial countries also pledged themselves in the NPT to promote peaceful nuclear energy especially by the transfer of peaceful technology. The export restrictions introduced in the late 1970s were seen by many as incompatible with this pledge and led to much harsh criticism at the 1980 NPT Review Conference. The differences between the suppliers and the importing countries in this regard are still far from being settled and the portents for the 1985 Review Conference in relation to technology transfer are also at present uncertain. Nevertheless, since the late 1970s matters have improved somewhat, at least in the sense that the IAEA's own Technical Assistance programme has grown and the developing countries – if they can raise the capital – can now look to a buyers' market for new nuclear power plants.

