

gradually changing as former buyers are acquiring the capability of developing their own nuclear technology and become themselves sellers of nuclear hardware and services. The new suppliers are mostly from the Third World. Their share in the global nuclear trade is still very modest. They are not in a position to provide modern sophisticated equipment, but they may offer an attractive alternative for those countries which shun the restrictive policies of the traditional suppliers.

So far, there has been no significant damage done to the non-proliferation regime by the emergent suppliers, because most transactions are internationally safeguarded. But the newcomers — among whom the most active are China, Argentina, Brazil and India — may decide to be less demanding as regards the application of safeguards; they are not bound by the 1977 London Guidelines for Nuclear Transfers. As a consequence, surveillance of nuclear developments, especially in non-NPT countries, could become even more difficult. Particularly destabilizing would be an uncontrolled trade in sensitive items, including nuclear spent fuel reprocessing and uranium enrichment technologies, for it could considerably weaken the non-proliferation regime. A dialogue would therefore be desirable between the emerging and established suppliers with a view to working out generally acceptable rules.<sup>5</sup>

### THE NUCLEAR THRESHOLD COUNTRIES

States which have neither acknowledged the possession of nuclear weapons nor joined the NPT but conduct significant nuclear activities and operate unsafeguarded nuclear plants capable of making nuclear weapon-usable material are usually referred to as nuclear threshold states; those belonging to this category are Argentina, Brazil, India, Israel, Pakistan and South Africa.

#### *Israel*

In 1986 a former technician from an Israeli nuclear facility asserted that Israel had a substantial nuclear arsenal. If proved correct, this information may mean that there are six states in the world which possess nuclear weapons rather than five, as previously believed. However, the official Israeli position on nuclear matters remains unchanged: Israel affirms, somewhat ambiguously, that it will not be the first country to introduce nuclear weapons into the Middle East.<sup>6</sup>

The establishment of a zone free of nuclear weapons in the Middle East has been repeatedly proposed in recent years, but the realization of this proposal is conceivable only within the framework of an overall political settlement of the Middle Eastern conflict and consequent significant cuts in all categories of weapons.

#### *Pakistan and India*

Evidence has accumulated in the past few years that both countries possess all the essential elements for the manufacture of nuclear weapons. It is thus now an established fact that, with the help of technology and hardware obtained from abroad clandestinely or with the

indulgence of the supplier's authorities, Pakistan is producing highly enriched, weapon-grade uranium. It may not yet have assembled a complete nuclear explosive device but, according to independent experts, its unsafeguarded enrichment plant has the capacity to produce enough fissile material for one to four weapons annually.<sup>7</sup>

India tested a nuclear device in 1974. Since then, it has greatly increased its plutonium production capacity (owing partly to clandestine imports of heavy water), has acquired uranium-enrichment technology, and is considered by some analysts to be able to produce over fifteen nuclear weapons per year.<sup>8</sup>

Pakistani proposals for signing the NPT simultaneously with India, or declaring the denuclearization of the South Asian region, or at least accepting reciprocal inspections of nuclear facilities, have so far been rejected by India.

#### *South Africa*

Accusations have been repeatedly made, mainly in the United Nations, that South Africa has clandestinely manufactured and tested a nuclear weapon. The suspicion is compounded by South Africa's refusal to allow the IAEA to inspect its uranium-enrichment facility, which has the capacity of producing weapon-grade uranium, and by South Africa's admission that it can produce a nuclear bomb.

The attitude of South Africa towards the NPT has always been ambivalent. Unlike India, Pakistan or Israel, South Africa has no obvious military incentives to build a nuclear arsenal. In 1987 the South African president stated that his government was prepared to commence negotiations with each of the nuclear weapon states on the possibility of joining the NPT. The obvious aim of this diplomatic move was to stave off an effort by several Third World states, led by Nigeria, to suspend South Africa from the exercise of the rights and privileges of its IAEA membership. A view then prevailed in the IAEA that the decision regarding South African membership should be postponed to allow the planned "negotiations" to take place. Indeed, in August 1988, South African representatives met with representatives of the UK, US and Soviet governments, which are depositaries of the NPT, and discussed "a wide range of issues." The South African delegation stated that it would report back to its government and that consideration would be given to the full implications of accession to the NPT. Under the pressure from certain influential delegations, the 1988 IAEA General Conference granted a further year's stay of execution of the threat to suspend South Africa's IAEA membership.

#### *Brazil and Argentina*

It was revealed in 1987 that Brazilian scientists had mastered the centrifuge technology for uranium enrichment (a technology used by only a few developed countries) and had begun the construction of a large enrichment plant soon to be put into operation. This was achieved, apparently, without outside help, in a secret, so-