

# NUCLEAR-WEAPON-FREE ZONES: A HISTORY AND ASSESSMENT

by Jozef Goldblat

*Jozef Goldblat has been involved in arms control negotiations in Geneva and New York for nearly 40 years, including service for the United Nations. From 1969 to 1989, he directed the arms control and disarmament program at the Stockholm International Peace Research Institute. Since 1989, he has been a Senior Research Fellow at the Geneva Graduate Institute of International Studies and Senior Lecturer at the Geneva Center for Security Policy. He is also Vice-President of the Geneva International Peace Research Institute and consultant to the U.N. Institute for Disarmament Research. His latest publications include **Arms Control: A Guide to Negotiations and Agreements** (1994) and **The Nuclear Non-Proliferation Régime: Assessment and Prospects** (1997).*

The idea of establishing nuclear-weapon-free zones (NWFZs) was conceived with a view to preventing the emergence of new nuclear weapon states. As early as 1958, 10 years before the signing of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Polish government, which feared the nuclearization of West Germany and wanted to prevent the deployment of Soviet nuclear weapons on its territory, put forward a proposal, called the Rapacki Plan (after the Polish foreign minister), for a NWFZ in Central Europe. The zone was to comprise Poland, Czechoslovakia, the German Democratic Republic, and the Federal Republic of Ger-

many, but other European countries would have the opportunity to accede. In the area in question, the stationing, manufacture, and stockpiling of nuclear weapons and of nuclear delivery vehicles would be prohibited. The nuclear powers would have to respect the nuclear-weapon-free status of the zone and undertake not to use nuclear weapons against the territory of the zone.<sup>1</sup> In the political climate of the 1950s, the Rapacki Plan had no chance of becoming a subject of serious international negotiation. Nonetheless, several of its elements were later adopted as guidelines for the establishment of denuclearized zones.

Efforts to ensure the absence of nuclear weapons in other populated

parts of the world have been more successful. By now, three regional denuclearization agreements—the 1967 Treaty of Tlatelolco regarding Latin America, the 1985 Treaty of Rarotonga regarding the South Pacific, and the 1992 Declaration on the Denuclearization of Korea—have entered into force, while two other such agreements—the 1995 Treaty of Bangkok regarding Southeast Asia and the 1996 Pelindaba Treaty regarding Africa—have been opened for signature. Also, certain uninhabited areas of the globe have been formally denuclearized. They include Antarctica under the 1959 Antarctic Treaty; outer space, the moon, and other celestial bodies under the 1967 Outer Space Treaty and the 1979

Moon Agreement; and the seabed, the ocean floor, and the subsoil thereof under the 1971 Seabed Treaty.<sup>2</sup>

Article VII of the NPT affirmed the right of states to establish NWFZs in their respective territories. The United Nations, in its numerous resolutions, went further by encouraging the creation of such zones, and the 1995 NPT Review and Extension Conference participants expressed the conviction that regional denuclearization measures enhance global and regional peace and security.<sup>3</sup> NWFZs have become part and parcel of the nuclear non-proliferation regime. It is now widely recognized that the universality of this regime, which would require attracting to it the remaining nuclear threshold states (India, Pakistan, and Israel), can be achieved only by establishing denuclearized zones in the regions of South Asia and the Middle East.

In 1975, the U.N. General Assembly recommended that states setting up NWFZ should be guided by the following principles<sup>4</sup>: (a) obligations relating to the establishment of such zones may be assumed not only by groups of states, including entire continents or large geographical regions, but also by smaller groups of states and even individual countries; (b) NWFZ arrangements must ensure that the zone would be, and would remain, effectively free of all nuclear weapons; (c) the initiative for the creation of a NWFZ should come from states within the region, and participation must be voluntary; (d) whenever a zone is intended to embrace a region, the participation of all militarily significant states, and preferably all states, in that region would enhance the effectiveness of

the zone; (e) the zone arrangements must contain an effective system of verification to ensure full compliance with the agreed obligations; (f) the arrangements should promote the economic, scientific, and technological development of the members of the zone through international cooperation on all peaceful uses of nuclear energy; and (g) the treaty establishing the zone should be of unlimited duration.

The United States has laid down its own criteria as conditions for supporting the creation of NWFZ.<sup>5</sup> Among other things, these conditions stipulate that the establishment of the zone should not disturb existing security arrangements to the detriment of regional and international security or otherwise abridge the inherent right of individual or collective self-defense guaranteed in the U.N. Charter. Moreover, a zone should not affect the rights of the parties under international law to grant or deny other states transit privileges, including port calls and overflights; and no restrictions should be imposed on the high seas freedoms of navigation and overflight, the right of innocent passage of territorial and archipelagic seas, and the right of transit passage of international straits.

This article examines the extent to which the above principles and criteria have been observed, given that dissimilar geographical circumstances, as well as different political, cultural, economic, and strategic considerations of the states concerned, prevent any uniform pattern of denuclearized zones. The main differences relate to the scope of the obligations assumed by the parties; the responsibilities of extra-zonal states; the geographical area subject to denuclearization; the verification

arrangements; and the conditions for the entry into force of the zonal agreement, as well as for its denunciation. Although each consecutive NWFZ treaty has brought some substantive improvements, all treaties suffer from shortcomings. These are described below along with suggestions as to how they could be remedied. Current international events highlight the importance of this analysis. The active discussion of new NWFZs, such as in Central Asia, at the 1997 NPT Preparatory Committee meeting in New York, suggests that the breadth of the coverage of these zones may continue to expand.<sup>6</sup> Thus, it is useful to take stock of what zones exist—particularly in inhabited areas of the globe—in order to understand better their significance and relationship to other international nonproliferation efforts.

## THE TREATY OF TLATELOLCO

During the 1962 Cuban missile crisis, a draft resolution calling for a NWFZ in Latin America was submitted at the U.N. General Assembly by Brazil but was not put to a vote.<sup>7</sup> In April 1963, at the initiative of the president of Mexico, the presidents of five Latin American countries announced that they were prepared to sign a multilateral agreement that would make Latin America a NWFZ.<sup>8</sup> This announcement received the support of the U.N. General Assembly, and the Latin American nations started negotiations among themselves. On February 14, 1967, at Tlatelolco, a district of Mexico City, the Treaty for the Prohibition of Nuclear Weapons in Latin America was signed by a number of Latin American states. Two Additional protocols annexed to the

Treaty of Tlatelolco were intended for signature by extra-zonal states.

### Scope of the Obligations and Verification

In Article I, the Treaty of Tlatelolco prohibits the testing, use, manufacture, production, or acquisition by any means, as well as the receipt, storage, installation, deployment, and any form of possession of nuclear weapons in Latin America. Encouraging or authorizing or in any way participating in the testing, use, manufacture, production, possession, or control of any nuclear weapon is equally prohibited. Research and development directed towards acquiring a nuclear weapon capability is not expressly forbidden.

Explosions of nuclear devices for peaceful purposes are allowed under the treaty, and procedures for carrying them out are specified in Article 18. However, a proviso is made that such activities must be conducted in conformity with Article 1, which bans nuclear weapons, as well as with Article 5, which defines a nuclear weapon as any device capable of releasing nuclear energy in an uncontrolled manner and having characteristics appropriate for use for warlike purposes. (An instrument that may be used for the transport or propulsion of the device is not included in this definition if it is separable from the device and not an indivisible part thereof.) Most countries interpret these requirements as prohibiting the manufacture of all nuclear explosive devices, unless or until nuclear devices are developed that cannot be used as weapons. For a long time, Argentina and Brazil contested this interpretation. However, in their July 18, 1991 agreement for the exclusive peaceful use of

nuclear energy, both countries undertook to prohibit in their respective territories the testing, use, manufacture, production, or acquisition by other means of any nuclear explosive device, as long as no technical distinction can be made between nuclear explosive devices for peaceful purposes and those for military purposes.<sup>9</sup> Thus, the controversy over whether indigenous development of nuclear explosive devices for peaceful purposes is compatible with participation in the Treaty of Tlatelolco has been set aside. It is obvious that allowing any kind of nuclear explosion would defeat the purpose of a NWFZ.

One of the purposes of the treaties establishing zones free of nuclear weapons is to make a nuclear attack against states parties militarily unjustifiable and, consequently, less likely. To achieve this goal, all potential targets of a nuclear strike would have to be removed from the denuclearized areas. These targets include nuclear-weapon-related support facilities, such as communication, surveillance, and intelligence-gathering facilities, as well as navigation installations, serving the nuclear strategic systems of the great powers. The Treaty of Tlatelolco does not, however, specifically ban such facilities.

Each party must conclude an agreement with the International Atomic Energy Agency (IAEA) for the application of safeguards to its nuclear activities (Article 13). The Agency for the Prohibition of Nuclear Weapons in Latin America (OPANAL) is responsible for holding periodic or extraordinary consultations among member-states on matters relating to the purposes, measures and procedures set forth in the treaty and to the supervision

of compliance with the obligations arising therefrom. The General Conference, composed of all parties to the treaty, is the supreme organ of OPANAL. It holds regular sessions, as well as special sessions if circumstances so require. The OPANAL Council—able to function continuously—is composed of five members elected by the General Conference. The General Secretary is the chief administrative officer of the Agency (Articles 7 to 11).

### Area Subject to Denuclearization

The zone of application of the Treaty of Tlatelolco embraces the territory, territorial sea, airspace, and any other space over which the zonal state exercises sovereignty in accordance with its own legislation (Article 3). Upon fulfillment of several requirements specified in Article 28, it will also include vast areas in the Atlantic and Pacific Oceans, hundreds of kilometers off the coasts of Latin America (Article 4). These requirements are: adherence to the treaty by all states of the region; signature and ratification of Additional Protocols to the treaty by all the states concerned; and conclusion of agreements with the IAEA for the application of safeguards to the nuclear activities of the parties. The extra-continental or continental states that are internationally responsible, *de jure* or *de facto*, for territories lying within the limits of the geographical zone established by the treaty—France, the Netherlands, the United Kingdom, and the United States—have undertaken to apply the statute of military denuclearization to these territories by adhering to Additional Protocol I of the treaty. All nuclear powers have unreserv-

edly assumed an obligation under Additional Protocol II to respect the denuclearization of Latin America as “defined, delimited and set forth” in the treaty, that is, as covering the designated portions of the high seas as well. However, in statements contradicting this obligation, the signatories of the protocol pointed out that they would not accept any restrictions on their freedom at sea.

Furthermore, since transit of nuclear weapons was not explicitly prohibited by the treaty, the question arose whether such activity is actually permitted. According to the interpretation given in 1967 by the Preparatory Commission for the Denuclearization of Latin America (COPREDAL), it is the prerogative of the territorial state, in the exercise of its sovereignty, to grant or deny permission for transit.<sup>10</sup> In joining Additional Protocols of the treaty, the United States and France made a declaration of understanding to the same effect, while the Soviet Union expressed the opinion that authorizing transit of nuclear weapons in any form would be contrary to the objectives of the treaty. China believes that transport of nuclear weapons through Latin American territory, territorial sea, or airspace is prohibited. Indeed, once nuclear weapons are allowed in transit, even if such transit is limited to port visits or overflights, it will be difficult to maintain that the zone has been totally denuclearized. In any event, since the great powers refuse, as a matter of policy, to disclose the whereabouts of their nuclear weapons, they are unlikely to request permission of transit for specific ships or aircraft carrying nuclear weapons. The right of zonal states to deny permission for transit of nuclear weapons is thus purely hypothetical.

### **Security Assurances of Extra-Zonal States**

Additional Protocol II to the Treaty of Tlatelolco provides for assurances to be given by the nuclear powers not to use or threaten to use nuclear weapons against the parties to the treaty. However, the obligations that the nuclear powers have actually assumed under this protocol are conditional. The United States and the United Kingdom made special interpretative statements at the time of signing and ratifying Protocol II, which reflected their current military doctrines. They reserved the right to reconsider their non-use obligations with regard to any state in the NWFZ in the event of an armed attack by that state carried out with the support or assistance of a nuclear power. The Soviet Union formulated a similar qualification with regard to a party to the treaty committing an act of aggression with the support of, or together with, a nuclear weapon state. For France, its non-use undertaking would present no obstacle to the full exercise of the right of self-defense enshrined in the U.N. Charter.

### **Entry into Force and Denunciation**

The Treaty of Tlatelolco enters into force among states that have ratified it only when certain conditions have been met—the same as are required under Article 28 for the extension of the geographical area of the Treaty’s application. These conditions may be waived, and most parties have in fact done so. The treaty became operative in April 1968, when El Salvador joined Mexico in ratifying it and in waiving the requirements for its entry into force.

The treaty is of a permanent nature and is not subject to reservations (Articles 30 and 27). However, any party may denounce it with three-months’ notice if, in its opinion, there have arisen or “may arise” circumstances connected with the content of the treaty or of the Additional Protocols that affect its supreme interests or the peace and security of one or more parties (Article 30).

### **Amendments**

In 1992, at the initiative of Argentina, Brazil, and Chile, the General Conference of OPANAL decided to amend the articles relating to verification (Articles 14, 15, 16, 19, and 20) of the Treaty of Tlatelolco. The most important of these amendments concerns the so-called special inspections envisaged in Article 16. According to the original version of this Article, special inspections may be arranged not only by the IAEA—in accordance with the safeguards agreements concluded with the parties—but also by the Council of OPANAL, following a request by a party which suspects that some prohibited activity has been or is about to be carried out in the territory of another party, or following a request by a party which has been suspected of or charged with having violated the treaty. In the latter case, the accused country would have an opportunity to prove its innocence. Inspectors would be granted full and free access to all places and all information necessary for the performance of their duties. The costs of special inspections arranged by the OPANAL Council would normally be borne by the requesting party or parties, except where the Council concludes that in view of the “cir-

cumstances existing in the case” such costs should be borne by OPANAL. According to the amended version of Article 16, the IAEA will have the exclusive power to carry out special inspections. The role of the OPANAL Council will be reduced in this respect to submitting requests to the IAEA to put into operation the mechanisms of inspection. Information regarding the conclusion of the special inspection will be transmitted to the General Secretary of OPANAL only after it has been forwarded by the Director General of the IAEA to the IAEA Board of Governors. These modifications may have set an unfortunate precedent for future denuclearization agreements. Certain countries in regions of international tension may be reluctant to entrust the protection of their vital security interests entirely to an international organization, even an organization of such high standing as the IAEA.

Another amendment, adopted in 1990, added to the official title of the Treaty of Tlatelolco the words “and the Caribbean” in order to incorporate the English-speaking states of the Caribbean area into the zone of application of the treaty. By yet another amendment in 1991, all the independent states of the region became eligible to join the regime of denuclearization. (According to the original Article 25, a “political entity,” part or all of whose territory was the subject of a dispute or claim between an extra-continental country and one or more Latin American states, could not be admitted.) Owing to this amendment, Belize and Guyana could join the treaty.<sup>11</sup>

Conditions for the entry into force of the amendments are not clearly stated in the treaty. The government

of Mexico, which is the depositary of the treaty, considers the amendments to be in force for those states which have ratified them and waived the requirements specified in Article 28.<sup>12</sup>

### THE TREATY OF RAROTONGA

In 1983, in the context of growing concern over the activities of the nuclear powers in the South Pacific, and especially over nuclear test explosions, Australia proposed the establishment of a nuclear-free zone in the region. The proposal was officially submitted at the annual South Pacific Forum, the high-level meeting of independent or self-governing South Pacific countries. It was endorsed the following year. Subsequently, as a result of negotiations among Australia, the Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, the Solomon Islands, Tonga, Tuvalu, Vanuatu, and Western Samoa—all member-states of the South Pacific Forum—a treaty establishing the proposed zone was signed on August 6, 1985, at Rarotonga in the Cook Islands. (Republic of Marshall Islands and Federated States of Micronesia became eligible to sign only upon joining the Forum in 1987.)<sup>13</sup> Three protocols annexed to the treaty were intended for signature by extra-zonal states.

#### Scope of Obligations and Verification

The South Pacific Nuclear Free Zone Treaty, called the Treaty of Rarotonga, in force since 1986, prohibits, in its Article 3, the manufacture or acquisition by other means, as well as the possession or control, of any nuclear explosive device by

the countries of the zone. It also bans seeking or receiving assistance in the manufacture or acquisition of nuclear explosive devices. Protocol 3, prohibiting tests of any nuclear explosive device anywhere within the zone, was opened for signature by all the nuclear powers, but it was clearly addressed to France, the only state at the time of signing which was engaged in such tests in the region.

By “nuclear explosive device” the treaty means any nuclear weapon or other explosive device capable of releasing nuclear energy, irrespective of the purpose for which it could be used. The term includes such a weapon or device in unassembled and partly assembled forms, but does not include the means of transport or delivery of such a weapon or device if separable from and not an indivisible part of it (Article 1). As in the Treaty of Tlatelolco, research and development directed towards acquiring nuclear-weapon capability are not expressly forbidden.

In addition to banning nuclear explosive devices, the Treaty of Rarotonga contains a ban on dumping radioactive matter at sea anywhere within the South Pacific zone (Article 7); hence the zone is called “nuclear-free,” which conveys a notion wider than “nuclear-weapon-free.” The relevant provision reflects the concern, often voiced in the United Nations and other international organizations, over the inability of the nuclear industry to dispose safely of its wastes.

As regards weapon-related prohibitions, the Treaty of Rarotonga appears to be stricter than the Treaty of Tlatelolco, because it prohibits the possession or testing of nuclear explosive devices for peaceful purposes. Nevertheless, as in the Treaty

of Tlatelolco, the denuclearization measures taken in the South Pacific region have not removed all the potential targets for nuclear attack, because the Treaty of Rarotonga has not prohibited the facilities serving nuclear strategic systems.

Full-scope IAEA safeguards must be applied to nuclear activities of the parties, and no nuclear exports to any non-nuclear weapon state may take place without the application of such safeguards. As distinct from the Treaty of Tlatelolco, safeguards are also required (though not of full-scope type) for nuclear exports to nuclear weapon states (Articles 4 and 8; Annex 2). The Consultative Committee—a forum for consultation and co-operation on any matter arising in relation to the treaty—may be convened to consider complaints by the Director of the South Pacific Bureau for Economic Co-operation, the depositary of the treaty. The Committee, which is constituted of the representatives of the parties, may direct that a special inspection be made by a team of three qualified inspectors, accompanied, if so requested, by representatives of the party complained of. If the Committee decides that there has been a breach of the treaty, the parties shall meet promptly at a meeting of the South Pacific Forum (Articles 9 to 10 and Annex 4).

### **Area Subject to Denuclearization**

Although the Treaty of Rarotonga claims to have set up a nuclear-free zone stretching to the border of the Latin American NWFZ in the east, and to the border of the Antarctic demilitarized zone in the south, it bans the presence of nuclear weapons only within the territories of the South Pacific states, up to the 12-mile territorial sea limit. It does not seek—

as the Treaty of Tlatelolco does through an additional protocol—to have nuclear-weapon prohibitions applied to a larger ocean area. This omission seems to be justified by a specific reference to international law with regard to freedom of the seas, although no law, including the law of the sea, can exclude constraints on any activity, if the constraints are internationally agreed. Establishment of extensive nuclear-weapon-free maritime areas adjacent to nuclear-weapon-free territories would reinforce the sense of security of zonal states.

Article 5 of the treaty allows each party to make an exception for nuclear weapons that may be aboard foreign ships visiting its ports or navigating its territorial sea or archipelagic waters, and for weapons that may be aboard foreign aircraft visiting its airfields or transiting its airspace. The frequency and duration of such permitted visits and transits are not limited. Thus, it is not clear to what extent they differ from the “stationing” (defined in Article 1 as “emplantation, emplacement, transportation on land or inland waters, stockpiling, storage, installation and deployment”) of nuclear weapons, which is prohibited. Under Protocol 1 to the Treaty of Rarotonga, open for signature by France, the United Kingdom, and the United States, the signatories are to apply the prohibitions contained in the treaty to the territories in the zone for which they are internationally responsible.

### **Security Assurances of Extra-Zonal States**

Protocol 2 to the Treaty of Rarotonga provides for the nuclear powers to give assurances not to use or threaten to use nuclear weapons against the parties. In signing this

protocol, the Soviet Union stated that in case of action taken by a party or parties violating their major commitments concerning the status of the zone, it would consider itself free of its non-use commitments. The same would apply in case of aggression committed by one or several parties to the treaty, supported by a nuclear weapon state, or together with it, involving the use by such a state of the territory, airspace, territorial sea, or archipelagic waters of the parties for visits by nuclear weapon-carrying ships and aircraft or for transit of nuclear weapons. Eventually, the Soviet Union ratified Protocols 2 and 3 without reference to the above statement.

China signed the same protocols with an understanding that it might reconsider its obligations if other nuclear weapon states or parties to the treaty took action in gross violation of the treaty and its protocols, thus changing the status of the zone and endangering the security interests of China. This understanding was not referred to at the time of ratification.

The United States stated that its practices and procedures in the South Pacific were not inconsistent with the treaty and its protocols, while the United Kingdom said that it would respect the intentions of the states in the region. In October 1995, both countries and France announced jointly their intention to sign all the protocols in the first half of 1996 (that is, after the planned termination of the last series of French nuclear tests in the Pacific).<sup>14</sup> The signing of the protocols by the three Western nuclear powers took place on March 25, 1996.<sup>15</sup> In its statement of reservation and interpretation, the French government made it clear that it did not consider its in-

herent right to self-defense to be restricted by the signed documents, and that the assurances provided for in Protocol 2 were the same as those given by France to non-nuclear weapon states parties to the NPT. The U.K. government stated that it would not be bound by its undertaking under Protocol 2 in the case of an invasion or any other attack carried out or sustained by a party to the treaty in association or alliance with a nuclear weapon state, or if a material breach of the nonproliferation obligations under the treaty were committed.<sup>16</sup> The U.S. government signed the protocols without reservation, but its spokesman said that “certain declarations and understandings” would be proposed to the U.S. Senate for incorporation in the resolution of ratification.<sup>17</sup>

### **Entry into Force and Denunciation**

According to Article 15, the Treaty of Rarotonga entered into force upon the deposit of the eighth instrument of ratification. This procedure was much simpler than that provided for in the Treaty of Tlatelolco. Also the denunciation formula of the Treaty of Rarotonga is different. It is more restrictive than that of the Treaty of Tlatelolco, because it concedes the right of withdrawal only in the event of violation of a provision essential to the achievement of the objectives of the treaty, and it requires a 12 months’ notice (Article 13). Reservations are not allowed (Article 14).

### **THE DECLARATION ON KOREA**

Whereas the Republic of Korea (South)—which joined the NPT in 1975—has all along been subject to full-scope safeguards, as provided

for in that Treaty, the Democratic People’s Republic of Korea (North)—party to the NPT since 1985—refused to sign a safeguards agreement with the IAEA within the time-limit prescribed by the Treaty. It put forward several political conditions for signing that were not directly related to the NPT.

Following the decision by the United States to withdraw most of the tactical nuclear weapons deployed outside its borders and the statement by the South Korean President that there were no such weapons in his country, the government of North Korea finally accepted the NPT safeguards. On January 20, 1992, both Korean states signed a Joint Declaration on the Denuclearization of the Korean Peninsula. The stated aim of the Declaration was to “eliminate the danger of nuclear war” and, in particular, to “create an environment and conditions favorable for peace and peaceful unification of our country.”

The parties agreed not to test, manufacture, produce, receive, possess, store, deploy, or use nuclear weapons. They further undertook to use nuclear energy solely for peaceful purposes, and not to possess nuclear reprocessing or uranium enrichment facilities. To verify compliance, each side may conduct inspection of the objects agreed upon by both sides.<sup>18</sup> A South–North Joint Nuclear Control Commission is to be in charge of implementing the Declaration.

The Joint Declaration was to enter into force upon the exchange of appropriate instruments following the completion of the procedures required by each side. This exchange took place in February 1992. However, the March 12, 1993 decision by

North Korea to withdraw from the NPT—although subsequently suspended—placed in jeopardy and, in any event, delayed the realization of the NWFZ agreement.

If brought fully into effect, the Korean Declaration would significantly complement the global nonproliferation regime. Its ban on reprocessing and enrichment activities—which goes beyond the obligations assumed by the parties to other NWFZ treaties—is particularly noteworthy. However, since these activities, which have legitimate civilian applications, are not prohibited by the NPT, they may not be banned in other zonal denuclearization agreements.

### **THE TREATY OF PELINDABA**

On November 24, 1961, in the aftermath of the first French nuclear weapon tests in the Sahara desert, the U.N. General Assembly called on member states to refrain from carrying out such tests in Africa, and from using the African continent for storing or transporting nuclear weapons.<sup>19</sup> Nearly three years later, the African heads of state and government participating in a summit conference of the Organization of African Unity (OAU) solemnly declared that they were ready to undertake, through an international agreement to be concluded under U.N. auspices, not to manufacture or control atomic weapons.<sup>20</sup> The Declaration was endorsed in resolutions of the United Nations, but no concrete action was taken to carry it into effect. Only in 1991, after South Africa—the only country on the African continent possessing the technical capability to produce nuclear weapons—had acceded to the NPT,

did real prospects appear for the establishment of an African NWFZ.

In 1995, as a result of several years work, OAU and U.N. experts succeeded in elaborating a draft treaty which, after some amendments, was approved by the OAU Assembly. As in the case of the Treaty of Tlatelolco and the Treaty of Rarotonga, the protocols annexed to the Treaty on the African Nuclear-Weapon-Free Zone are to be signed by extra-zonal states. (The treaty is also called the Treaty of Pelindaba, after the former seat of South Africa's nuclear-weapon-related activities). Other aspects the Treaty of Pelindaba also followed the pattern of the NWFZ arrangements in force in Latin America and the South Pacific. On December 12, 1995, the U.N. General Assembly welcomed the Treaty of Pelindaba,<sup>21</sup> and on April 11, 1996, the treaty was opened for signature.

### Scope of Obligations and Verification

The Treaty of Pelindaba prohibits the manufacture, testing, stockpiling, or acquisition by other means, as well as possession and control of any nuclear explosive device (in assembled, unassembled, or partly assembled forms) by the parties. In addition—and this is an important novelty—research on, and development of, such a device are banned. Moreover, the treaty bans seeking, receiving, or encouraging assistance in the above-enumerated activities (Articles 3 and 5). Under Protocol II, open for signature by the five nuclear weapon states, the signatories should undertake not to test or assist in or encourage the testing of any nuclear explosive device within the African zone. Article 1 defines

nuclear explosive device in exactly the same way it is defined in the Treaty of Rarotonga.

In a clear allusion to the past South African nuclear weapon program, Article 6 of the Treaty of Pelindaba requires the dismantlement and destruction of any nuclear device that was manufactured prior to the coming into force of the treaty, as well as the destruction of the relevant facilities or their conversion to peaceful uses. All such operations must take place under the supervision of the IAEA. These provisions aim to dispel any lingering suspicion that some nuclear items have been hidden away in South Africa or that certain prohibited activities are still taking place there. Article 6 sets a precedent for future nuclear weapon-free-zone treaties concluded with the participation of nuclear threshold states.

Like the Treaty of Rarotonga, the Treaty of Pelindaba prohibits the dumping of radioactive matter anywhere within the African zone, but it also contains, in Article 7, an undertaking by the parties to implement or to use as guidelines the measures contained in the Bamako Convention on the Ban of the Import into Africa and Control of Transboundary Movement and Management of Hazardous Wastes within Africa, in so far as it is relevant to radioactive waste. The parties undertake to strengthen the mechanisms for co-operation at bilateral, subregional, and regional levels, with a view to promoting the use of nuclear science and technology for economic and social developments.

While stationing of nuclear explosive devices in the territory of the zonal states is prohibited, visits and

transit by foreign ships and aircraft with nuclear weapons aboard may be allowed by the parties on the rather vague condition that no prejudice should be caused to the purposes and objectives of the treaty (Article 4). Nor is it prohibited in the African zone to establish facilities serving nuclear strategic systems of the nuclear powers.

Verification of the uses of nuclear energy is to be performed by the IAEA, which must apply full-scope safeguards to prevent the diversion of nuclear material to nuclear explosive devices (Annex II).<sup>22</sup> Parties to the treaty may supply nuclear material or equipment to non-nuclear weapon states only if the latter accept full-scope safeguards (Article 9c). Furthermore, the treaty obliges the parties to observe international rules regarding the security and physical protection of nuclear materials, facilities, and equipment in order to prevent their theft or unauthorized use (Article 10). Any action aimed at an armed attack by conventional or other means against nuclear installations in the African zone is forbidden (Article 11).

The African Commission on Nuclear Energy (AFCONE), which will have its headquarters in South Africa, is to be charged with ensuring compliance with all the above undertakings (Article 12). It will be composed of 12 members elected by the parties for a three-year period, bearing in mind not only the principle of equitable geographical distribution, but also the advancement of the members' nuclear programs. The Chairman and Vice-Chairman are to be elected by AFCONE, while the Executive Secretary is to be designated by the Secretary-General of the OAU (Annex III). The Commis-



sion may request the IAEA to conduct an inspection on the territory of a party suspected of violating its obligations and designate representatives to accompany the Agency's inspection team, but it may also set up its own inspection mechanisms. Established breaches may be referred to the OAU which, in turn, can refer the matter to the U.N. Security Council (Annex IV).

### **Area Subject to Denuclearization**

The Treaty of Pelindaba bans nuclear weapons in the territory of the continent of Africa, island states members of the OAU, and all islands considered in OAU resolutions (presumably also resolutions that may be adopted in the future) to be part of Africa. For the purpose of the treaty, "territory" means land territory, internal waters, territorial seas, and archipelagic waters and the airspace above them, as well as the seabed and subsoil beneath (Article 1). A reference is made to the freedom of the seas (Article 2)—identical to that appearing in the Treaty of Rarotonga; it is clearly intended to preclude restrictions on the presence of nuclear weapons beyond the territorial sea limits of the zonal states. Under Protocol III of the Treaty of Pelindaba, open for signature by France and Spain, the signatories should undertake to apply, in the territories for which each of them is *de jure* or *de facto* internationally responsible and that are situated in the African zone, the denuclearization provisions contained in Articles 3 to 10 of the treaty, and to ensure the application of IAEA safeguards there.

The geographic extent of the application of the Treaty of Pelindaba

and of its protocols is illustrated in a map annexed to the treaty. The main difficulty in drawing up this map was the status of the Chagos Archipelago, including the island of Diego Garcia that harbors a U.S. military base. The Archipelago is covered by the map with a proviso that this is "without prejudice to the question of sovereignty" claimed by both the United Kingdom and Mauritius. It was thus made clear that the resolution of the sovereignty issue would have to take place outside the framework of the treaty. However, the United Kingdom stated that it did not accept the inclusion, without its consent, of the British Indian Ocean Territory, of which Diego Garcia is part, within the African NWFZ, and that it did not accept any legal obligations in respect of that Territory. In a related statement, the United States noted that neither the treaty nor Protocol III applies to the activities of the United Kingdom, the United States, or any other state not party to the treaty on the Island of Diego Garcia or elsewhere in the British Indian Ocean Territories, and that, accordingly, no change was required in U.S. armed forces operations there.<sup>23</sup> Russia, however, pointed out that, as long as a military base of a nuclear power was situated on the Chagos Archipelago islands, and as long as certain nuclear powers considered themselves free from the obligations under the protocols to the Treaty of Pelindaba with regard to these islands, Russia could not regard them as meeting the requirements of nuclear-weapon-free territories.<sup>24</sup>

### **Security Assurances of Extra-Zonal States**

Under Protocol I, open for signature by China, France, Russia, the

United Kingdom, and the United States, the signatories should undertake not to use or threaten to use a nuclear explosive device against any party to the treaty, or any territory within the African zone for which a state that has become party to Protocol III is internationally responsible. However, in signing this protocol, the United States, the United Kingdom, and France declared that they would not be bound by it in case of an invasion or any other attack upon them, carried out or sustained by a party to the treaty in association or alliance with a nuclear weapon state. Russia made a similar statement, but added that it did not consider itself bound by the obligations under Protocol I in respect of the Chagos Archipelago islands.

Parties to the protocols would undertake not to contribute to any act constituting a violation of the treaty or the relevant protocol. This undertaking, however, is unverifiable without the transparency of the nuclear powers' naval and air deployments in the NWFZ as well as in the areas adjacent to the zone.<sup>25</sup>

### **Entry into Force and Denunciation**

The Treaty of Pelindaba is not subject to reservations. It will enter into force on the date of the deposit with the Secretary-General of the OAU of the 28th instrument of ratification. The treaty is of unlimited duration, but any party may withdraw from it at 12-months' notice, if some extraordinary events have jeopardized its supreme interests. The denunciation clause is thus less rigorous than in the Treaty of Rarotonga, which permits withdrawal only in the event of a material breach of the treaty.

## THE TREATY OF BANGKOK

In Southeast Asia, the idea of setting up a NWFZ was developed as part of the Declaration on the Zone of Peace, Freedom, and Neutrality (ZOPAN) issued in 1971 by the Association of Southeast Asian Nations (ASEAN). In recent years, states of the region have revitalized the denuclearization proposal,<sup>26</sup> and a working group, established by the Association, engaged in preparatory work to implement the initiative. This work gathered momentum after the United States had closed its military bases in the Philippines and appeared to support the ASEAN project. On December 16, 1995, the Treaty on the Southeast Asia Nuclear-Weapon-Free Zone was signed in Bangkok. It is referred to as the Treaty of Bangkok.

### Scope of Obligations and Verification

Parties to the Treaty of Bangkok may use nuclear energy for their economic development and social progress, but are prohibited, both inside and outside the zone, from developing, testing, manufacturing or otherwise acquiring, possessing, or having control over nuclear weapons. (Unlike in the Treaty of Pelindaba, research on nuclear explosive devices is not expressly banned.) The parties will not allow other states to engage in such activities, including the use of nuclear weapons, on their territories. "Nuclear weapon" is defined in somewhat simpler terms than in other denuclearization treaties, namely, as any explosive device that is capable of releasing nuclear energy in an uncontrolled manner. The means of transport or delivery of such a device are not included in this defi-

nition if they are separable from and not an indivisible part thereof. Nuclear explosive devices in unassembled or partly assembled forms are not explicitly covered. Dumping at sea or discharge into the atmosphere within the zone of any radioactive material or wastes is not allowed. Nor is it allowed to dispose radioactive material or wastes on land, unless the disposal is carried out in accordance with IAEA standards and procedures. Seeking or receiving assistance in the commission of acts which would violate the above provisions, as well as assisting in or encouraging the commission of such acts are equally prohibited (Articles 1 and 3).

Parties, which have not yet done so, must conclude an agreement with the IAEA for the application of full-scope safeguards to their peaceful nuclear activities (Article 5). In addition to these safeguards, the control system will comprise reports and exchanges of relevant information; requests for clarification of situations that may be considered ambiguous or may give rise to doubts about compliance; and requests for fact-finding missions to clarify and resolve such situations in accordance with the procedure laid down in the annex to the treaty (Article 10). Prior to embarking on a peaceful nuclear energy program, each party must subject the program to rigorous nuclear safety assessment conforming to the guidelines and standards recommended by the IAEA for the protection of health and minimization of danger to life and property (Article 4b).

A Commission for the Southeast Asia Nuclear-Weapon-Free Zone, composed of all states parties, is to be established to oversee the imple-

mentation of the treaty and ensure compliance with its provisions. The Executive Committee, a subsidiary organ of the Commission—also composed of all parties—is to ensure the proper operation of verification measures, decide on requests for clarification and for a fact-finding mission, set up such a mission (which would consist of three inspectors from the IAEA who are neither nationals of the requesting state nor nationals of the receiving state), decide on its findings, and request the Commission to convene if necessary. The decisions of the Executive Committee and those of the Commission are to be taken by consensus or, failing consensus, by a two-thirds majority of the members present and voting (Articles 8 and 9). In case of an established breach of the treaty, the Commission must decide on measures to cope with the situation, including submission of the matter to the IAEA and—where the situation might endanger international peace and security—to the Security Council and the General Assembly of the United Nations (Article 14.3). Disputes arising from the interpretation of the treaty may be referred to arbitration or the International Court of Justice (Article 21).

Stationing—defined as deploying, emplacing, implanting, installing, stockpiling, or storing nuclear weapons—in the Southeast Asia Zone is prohibited. However, each party, on "being notified," may decide for itself whether to allow visits by foreign ships and aircraft to its ports and airfields, transit of its airspace by foreign aircraft, and navigation by foreign ships through its territorial sea or archipelagic waters and overflight of foreign aircraft above those waters in a manner not governed by the

rights of innocent passage, archipelagic sea lanes passage or transit passage (Article 7). As elsewhere, it is doubtful whether the presence of nuclear weapons on foreign ships or aircraft would ever be announced.

### **Area Subject to Denuclearization**

The Southeast Asia Nuclear-Weapon-Free Zone comprises the territories of Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam, as well as their respective continental shelves and exclusive economic zones (EEZ) (Articles 1a and 2.1). The inclusion of continental shelves and of EEZ is a novelty, but, according to the language of the treaty, the right of states with regard to freedom of the high seas and innocent passage or transit passage of ships and aircraft, are not to be prejudiced.

### **Security Assurances of Extra-Zonal States**

Under the protocol annexed to the Treaty of Bangkok and open for signature by China, France, Russia, the United Kingdom, and the United States, the signatories would assume the following obligations: to respect the treaty and not to contribute to any act that would constitute its violation, and not to use or threaten to use nuclear weapons against any state party to the treaty and, in general, within the zone. The protocol is of a permanent nature, but each party may withdraw from it, if it decides that extraordinary events related to the subject matter of the protocol have jeopardized its supreme interests.

In the event of a breach of the

protocol, the Executive Committee may convene a special meeting of the Commission to decide on appropriate measures to be taken. No other denuclearization treaty provides for such action.

The United States expressed concerns (shared by some other nuclear powers) that because of the geographical extent of the Zone—which it considers inconsistent with the Law of the Sea Convention—regular movement of nuclear-powered and nuclear-armed naval vessels and aircraft through Southeast Asia would be restricted and regional security arrangements disturbed. It is reluctant to provide what it deems to be sweeping security assurances as demanded by the Southeast Asian zonal states. China made known its objection to the geographical scope of the treaty, specifically to the inclusion of parts of the South China Sea to which it and some ASEAN members have conflicting claims.<sup>27</sup> It is possible that the signatories of the treaty will revise the language of the protocol to make it acceptable to the nuclear weapon states.

### **Entry into Force and Denunciation**

The Treaty of Bangkok will enter into force upon the deposit with the government of Thailand of the seventh instrument of ratification (Article 16). Reservations are not permitted. The treaty is to remain in force indefinitely, but—like in the Treaty of Rarotonga—each party will have the right to withdraw from it, at 12 months' notice, in the event of a breach by any other party that would be essential to the achievement of the objectives of the treaty (Article 22).

The operation of the treaty is to

be reviewed 10 years after its entry into force at a meeting of the Commission specially convened for this purpose (Article 20). Amendments can be adopted only by a consensus decision of the Commission (Article 19).

### **PROPOSALS FOR OTHER DENUCLEARIZED ZONES**

In the Middle East—one of the most explosive regions in the world—the concept of a NWFZ was advanced by Iran and Egypt in 1974.<sup>28</sup> Since then, the U.N. General Assembly adopted several resolutions supporting this concept, and in recent years it has done so by consensus.<sup>29</sup> Also the U.N. Security Council cease-fire resolution 687, passed after the 1991 Persian Gulf War, emphasized the need for a denuclearized Middle East.

The zone in the Middle East, as envisaged, overlaps, to a large extent, with the NWFZ in Africa, but it is aimed primarily at Israel which refuses to join the NPT. Israel acknowledges having nuclear weapon capabilities, but has neither confirmed nor denied the possession of nuclear weapons. It made an ambiguous statement to the effect that “it will not be the first country to introduce nuclear weapons into the Middle East.”<sup>30</sup> A U.N. study on “effective and verifiable measures which would facilitate the establishment of a nuclear-weapon-free zone in the Middle East,” published in 1990, suggested that the process of creating the proposed zone should be preceded by confidence-building measures.<sup>31</sup>

In April 1990, President Mubarak of Egypt proposed the establishment in the Middle East of a zone free of all types of weapons of mass destruc-

tion.<sup>32</sup> Thus, not only nuclear weapons would be banned in the area in question, but chemical and biological weapons as well, and probably also certain categories of ballistic missiles. In any event, complete and verified denuclearization of the Middle East is not likely to take place before a successful conclusion of the peace process, which would end threats of the use of force in the region.

The proposal for the establishment of a NWFZ in South Asia has been on the agenda of the U.N. General Assembly since the early 1970s, and a number of resolutions have been adopted recommending such a measure. The proposal is aimed at India and Pakistan, the major powers in the region not bound by the NPT.

In 1974, India conducted a test of a nuclear device, which it called a peaceful explosion, but it claims that it has never “weaponized” the results of this test.<sup>33</sup> Nonetheless, according to some reports, India has already manufactured nuclear weapons and perhaps made preparations for another nuclear explosion.<sup>34</sup> Even if these reports are not correct, the very possession of a growing stockpile of nuclear weapon-usable material gives India the ability to “go nuclear” within a short period of time. In retaining the nuclear option India may wish to counterbalance China’s nuclear arsenal and its superiority in non-nuclear armaments.

Pakistan has the ability to produce nuclear weapons, and may have already done so,<sup>35</sup> but Pakistani leaders deny it. To demonstrate their good will, they have proposed various denuclearization arrangements with India, such as simultaneous accession to the NPT, mutual acceptance of full-scope IAEA nuclear safeguards, bilateral inspections of all

nuclear installations, formal pledges not to manufacture nuclear weapons, and, finally, the establishment of a South Asian zone free of nuclear weapons. India has rejected the above proposals, arguing that without a proper definition of the geographic extent and the security needs of the region (an allusion to the neighboring China), endorsement of the concept of regional denuclearization would be inappropriate. It also considers nuclear disarmament as a matter requiring a global rather than a regional approach.

In Europe, all states have joined the NPT. Moreover, the elimination by the United States and Russia of ground-launched missiles with a range of 500 to 5500 kilometers, in compliance with the INF Treaty, as well as the two powers’ unilateral withdrawals of their short-range missiles and most other tactical weapons, have transformed much of the European continent into a zone of considerably thinned-out nuclear armaments. In addition, according to the 1990 Treaty on the Final Settlement with respect to Germany, after the withdrawal of Russian forces from the former German Democratic Republic, no nuclear weapons may be stationed in that part of Germany.<sup>36</sup> Nevertheless, over the years, proposals have been made for a formal denuclearization of different parts of Europe. Recently, the government of Belarus suggested creating a NWFZ that would comprise countries situated between the Baltic Sea and the Black Sea.<sup>37</sup> The suggestion grew out of concern that the planned eastward expansion of the North Atlantic Treaty Organization (NATO) could lead to the deployment of Western tactical nuclear weapons on the territories of the former members of the Warsaw

Treaty Organization (WTO). However, there is no consensus among the countries of Central and Eastern Europe about the need for such undertakings. Proposals for a Nordic NWFZ, made repeatedly during the Cold War, were never subject of real negotiation.

The suspected acquisition of nuclear weapons by North Korea gave rise to a discussion about the advisability of setting up a NWFZ in Northeast Asia, which would cover not only the two Korean states but also Japan and Taiwan.

Central Asia, too, has been mentioned by the countries of the region as an area lending itself to denuclearization. Numerous key steps have already taken place, including the tabling of several documents before the United Nations.<sup>38</sup> Most significant among these developments has been the Almaty Declaration of February 28, 1997, in which the presidents of the five states of the region (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) expressed their joint support for the formation of a NWFZ. The five states have created a working group and intend to meet in Tashkent, Uzbekistan, in September 1997 to draw up plans for a formal U.N. resolution announcing their plans and calling on other states for their support in the formation of the zone.<sup>39</sup>

Moreover, an even broader concept of establishing a “nuclear-weapon-free southern hemisphere and adjacent areas” was launched at the 1996 U.N. General Assembly.<sup>40</sup> Finally, proposals for “zones of peace” in the Indian Ocean, the Mediterranean, the South Atlantic, and Central America imply at least some measure of denuclearization in these regions.

## **NUCLEAR-WEAPON-FREE COUNTRIES**

In 1987, the Parliament of New Zealand decided to establish the New Zealand Nuclear Free Zone.<sup>41</sup> The zone comprises all of the land, territory, and inland waters within the territorial limits of New Zealand; the internal waters and the territorial sea of New Zealand; as well as the air-space above all these areas. In addition to prohibitions on the acquisition, stationing, and testing of nuclear explosive devices in the zone, the Prime Minister may grant approval to the entry of foreign warships into the internal waters of New Zealand only if he is satisfied that the warships will not be carrying any nuclear explosive device upon their entry into these waters. Similarly, approval of landings in New Zealand by foreign military aircraft may be granted by the Prime Minister only if he is satisfied that the aircraft will not be carrying any nuclear explosive device when it lands. Entry into the internal waters of New Zealand by any ship whose propulsion is wholly or partly dependent on nuclear power is prohibited. In this respect, the Parliamentary Act establishing the New Zealand Zone went beyond the restrictions set by other NWFZs; none of them prohibits the presence of nuclear-powered engines.<sup>42</sup>

New Zealand's anti-nuclear posture proved unacceptable to the United States, which canceled its naval exercises with New Zealand, stopped its long-established intelligence relationship with that country, and suspended its security obligations to it. The argument put forward by the United States was that, by barring U.S. warships, New Zealand had placed in jeopardy the collective capacity of the Australia-New

Zealand-United States (ANZUS) alliance to resist armed attack.<sup>43</sup>

In his address to the U.N. General Assembly, in September 1992, the President of Mongolia declared the territory of his country a NWFZ. He said that his government would strive to have its status internationally guaranteed.<sup>44</sup>

In response to the above declaration, the United States made a statement in which it noted that, as a non-nuclear party to the NPT, Mongolia benefited from the U.S. commitment to seek Security Council assistance in the event of a nuclear attack, and from the assurances that nuclear weapons would not be used against a non-nuclear weapon state not allied with a nuclear weapon state. The United Kingdom and France made a similar statement. Russia referred to its treaty on friendly relations and co-operation with Mongolia, in which it undertook to respect the policy of the Mongolian government aimed at preventing the deployment of foreign troops as well as of nuclear and other weapons of mass destruction on its territory or their transit through its territory.

In 1988, the Parliament of Denmark passed a resolution requesting the government to notify all visiting warships that they must not carry nuclear arms into Danish ports. In a sense, the resolution merely elaborated on the official Danish policy proclaimed more than three decades earlier, namely, that in time of peace, introduction of nuclear weapons to the country is prohibited. In fact, however, the resolution appeared to reject the practice of "neither confirming nor denying" the presence of nuclear weapons, which is followed by the navies of all the nuclear

weapon powers. Eventually, under pressure exercised within NATO, mainly by the United States and the United Kingdom, Denmark (a member of NATO) agreed as a compromise to proceed on the assumption that its decision to keep its territory free of nuclear weapons in peacetime would be respected by visiting foreign ships or aircraft. Denmark decided not to seek specific assurances.<sup>45</sup>

In neutral Sweden, visiting warships are not permitted to carry nuclear weapons. In 1987, the ruling Social Democratic Party decided that efforts should be made to make the nuclear powers forgo the practice of not giving information regarding the presence of nuclear weapons on their warships.

Several other countries as well, including members of the military alliances, have formally prohibited (as have Japan, Iceland, Norway, and Spain) foreign ships or aircraft from entering their territories with nuclear weapons aboard. However, to avoid antagonizing the great powers, the governments of some of these states chose to pretend not to be aware of the presence of nuclear weapons on board the visiting foreign craft.<sup>46</sup>

## **SUMMARY AND CONCLUSIONS**

To the extent that the incentive to acquire nuclear weapons may emerge from regional considerations, the establishment of areas free of nuclear weapons is an important asset for the cause of nuclear nonproliferation. Countries confident that their enemies in the region do not possess nuclear weapons may not be inclined to acquire such weapons themselves. The zones that have been established to

date meet other postulates as well. Besides prohibiting the acquisition of nuclear weapons by zonal states, they proscribe (unlike the NPT) the stationing of these weapons in the territories of non-nuclear weapon states. Zonal procedures to verify compliance with the nonproliferation obligations are even stricter than the procedures prescribed by the NPT. Moreover, zonal states benefit from some legally binding security assurances of the great powers.

Nevertheless, as pointed out in the preceding sections, the present NWFZ treaties are deficient in several respects. In particular:

1. None of the treaties specifies that the denuclearization provisions are valid both in time of peace and in time of war.
2. Research on nuclear explosive devices is explicitly prohibited only in the Treaty of Pelindaba.
3. Only the Treaty of Rarotonga and the Treaty of Pelindaba make it clear that the bans cover nuclear explosive devices also in unassembled or partly assembled forms.
4. So-called peaceful nuclear explosions may be allowed by the Treaty of Tlatelolco (though only under certain conditions).
5. Nuclear-weapon-related support facilities serving the strategic systems of the nuclear powers are not banned by any NWFZ treaty.
6. Only the Treaty of Pelindaba prohibits attacks on nuclear facilities.
7. Only the Treaty of Tlatelolco and the Treaty of Bangkok provide for the denuclearization of maritime areas adjacent to the territorial waters of zonal states.
8. All treaties tolerate the transit

of nuclear weapons through the territories of zonal states, including visits by foreign ships and aircraft with nuclear weapons aboard.

9. The withdrawal clauses of the Treaty of Tlatelolco and the Treaty of Pelindaba, which refer to the "supreme interests" of the parties, are too permissive. (The Treaty of Rarotonga and the Treaty of Bangkok concede the right of withdrawal only in the event of a material breach of the parties' obligations.)

10. The nuclear powers' undertaking to respect the status of the denuclearized zones is unverifiable.

11. Assurances not to use nuclear weapons against zonal states, as given by the nuclear powers, are not unconditional.

12. Only the Treaty of Bangkok calls for action in the event of violation of the obligations assumed by the nuclear powers.

The above deficiencies could be removed through amendments of the existing NWFZ treaties and should be avoided in the drafting of such new treaties, provided due account is taken of the particularities of each region. Unilateral formal declarations on the denuclearization of individual countries may contain undertakings stricter than treaties. Therefore, they should be encouraged to further strengthen the nonproliferation regime.

<sup>1</sup> A. Albrecht, *The Rapacki Plan—New Aspects* (Poznan, Poland: Zachodnia Agencja Prasowa, 1963).

<sup>2</sup> A comprehensive discussion of these treaties is beyond the scope of this article, due to space

limitations. For an analysis of these areas, see Jozef Goldblat, *Arms Control: A Guide to Negotiations and Agreements* (Oslo and London: PRIO and SAGE, 1994).

<sup>3</sup> 1995 NPT Review and Extension Conference document NPT/CONF.1995/32/DEC.2.

<sup>4</sup> U.N. document A/10027/Add.1.

<sup>5</sup> U.S. State Department Briefing Document, December 8, 1995.

<sup>6</sup> See U.N. document NPT/CONF.2000/PC.I/14 (14 April 1997), "Proposed elements for inclusion in the report of the Preparatory Committee on its first session," submitted by Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

<sup>7</sup> U.N. General Assembly document A/C.1/L.312/Rev.1-2 and Add.1, 1962.

<sup>8</sup> U.N. General Assembly document A/5415/Rev.1, 1963.

<sup>9</sup> PPNN, *Briefing Book*, document G-1, 1993.

<sup>10</sup> A. Garcia Robles, *El Tratado de Tlatelolco*, (Mexico City: El Colegio de Mexico, 1967).

<sup>11</sup> For the text of all these amendments, see 1995 NPT Review and Extension Conference document NPT/CONF.1995/10.

<sup>12</sup> By February 26, 1997, only 11 parties to the Treaty of Tlatelolco (out of 32) had ratified all the amendments. These were: Argentina, Barbados, Brazil, Chile, Guyana, Jamaica, Mexico, Paraguay, Peru, Uruguay, and Venezuela. (Information obtained by author from OPANAL.)

<sup>13</sup> 1995 NPT Review and Extension Conference document NPT/CONF.1995/11.

<sup>14</sup> U.S. Department of State, Office of the Spokesperson, October 20, 1995.

<sup>15</sup> *International Herald Tribune*, March 26, 1996.

<sup>16</sup> Communication from the Legal and Political Officer, South Pacific Forum Secretariat, Suva, Fiji, August 5, 1996.

<sup>17</sup> White House Press Briefing by NSC Senior Director Bell, March 22, 1996.

<sup>18</sup> During negotiations, North Korea rejected South Korea's proposal for a system of challenge inspections to be conducted upon the initiative of the requesting party (L. Niksch and Z. Davis, "North Korean Nuclear Controversy: Defining Treaties, Agreements, and Terms," *CRS Report for Congress* (Congressional Research Service. The Library of Congress, September 16, 1964).

<sup>19</sup> U.N. General Assembly Resolution 1652 (XVI).

<sup>20</sup> OAU document AHG/Res.11(1), July 21, 1964.

<sup>21</sup> U.N. General Assembly Resolution 50/78.

<sup>22</sup> So far, four African states—Algeria, Egypt, Libya, and South Africa—have nuclear programs requiring the application of safeguards. Of these, only South Africa is in possession of nuclear power reactors.

<sup>23</sup> PPNN *Newsbrief*, 2nd Quarter 1996.

<sup>24</sup> Letter from the Russian Ambassador to the Secretary-General of the Organization of African Unity, Addis Ababa, November 5, 1996.

<sup>25</sup> France was the first nuclear power to ratify all the three protocols.

<sup>26</sup> U.N. document A/47/80.

<sup>27</sup> *International Herald Tribune*, December 9-

10, 11, 14, and 16-17, 1995.

<sup>28</sup> U.N. General Assembly Resolution A/RES/3263 (XXIX).

<sup>29</sup> For the historical background of this proposal, see M. Karem, *Nuclear-Weapon-Free Zone in the Middle East: Problems and Prospects* (New York: Greenwood Press, 1988).

<sup>30</sup> For a detailed account of Israel's nuclear weapon capabilities, see Leonard S. Spector, *Nuclear Ambitions* (Boulder, Colo.: Westview Press, 1990), pp.149-174.

<sup>31</sup> U.N. document A/45/435, October 10, 1990.

<sup>32</sup> Conference on Disarmament document CD/989, April 20, 1990.

<sup>33</sup> More tests might be needed to develop a reliable nuclear warhead.

<sup>34</sup> *The New York Times*, December 15 and 16, 1995, and January 9, 1996.

<sup>35</sup> For a detailed account of India's and Pakistan's nuclear weapon capabilities, see Spector, *Nuclear Ambitions*, pp. 63-117.

<sup>36</sup> *NATO Review* (Brussels), No. 5 (October 1990), p. 30.

<sup>37</sup> 1995 Review and Extension Conference document NPT/CONF.1995/SR 3. For an elaboration of this idea, see A. I. Shevtsov, ed., *Analysis of the problem to create a new security system. An initiative to establish a denuclearized zone in Central and Eastern Europe* (Dnepropetrovsk, Ukraine: National Institute of Strategic Studies, 1995); J. Prawitz, "A Nuclear-Free Zone From the Baltic to the Black Sea," *Security Dialogue* 27 (June 1996); and J. Prawitz, *PPNN Issue Review*, No. 10 (February 1997).

<sup>38</sup> See U.N. General Assembly document A/52/112 (March 18, 1997), Annex "Almaty Declaration, adopted by the leaders of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, of 28 February 1997"; also, see U.N. General Assembly document A/C.1/51/L.29 (October 29, 1996) submitted to the First Committee, "Kyrgyzstan and Mongolia: draft resolution. Establishment of a nuclear-weapon-free zone in the Central Asian region."

<sup>39</sup> Information provided by the Center for Non-proliferation Studies at the Monterey Institute of International Studies, based on a trip by senior staff members to the region in May 1997.

<sup>40</sup> U.N. General Assembly Resolution A/RES/51/45.

<sup>41</sup> The New Zealand Nuclear Free Zone, Arms Control and Disarmament Act 1987.

<sup>42</sup> The Act reflected public opinion in New Zealand, where an overwhelming majority of people desired their defense to be arranged in a way that ensured that the country remained nuclear-free (Report of the Defence Committee of Enquiry, *Defence and Security: What New Zealanders Want* and the "Public Opinion Poll on Defence and Security," annexed to the Report, Wellington, July 1986). For a discourse on threat assessment in New Zealand, see Wade Huntley, "The Kiwi that Roared: Nuclear-Free New Zealand in a Nuclear-Armed World," *The Nonproliferation Review* 4 (Fall 1996).

<sup>43</sup> *The Washington Post*, December 18, 1986;

P. Samuel, and F.P. Serong, "The Troubled Waters of ANZUS," *Strategic Review* (Winter 1985).

<sup>44</sup> U.N. document A/47/PV.13.

<sup>45</sup> *Berlingske Tidende* (Copenhagen), April 15, 1988; *Le Monde*, June 9, 1988.

<sup>46</sup> Certain cities have declared themselves nuclear-weapon free, but such declarations are not binding on the governments of the countries concerned.