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NUCLEAR SUPPLIERS AND NUCLEAR NON-PROLIFERATION

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PROBLEM COUNTRIES

by

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## Definitions

"Problem countries" are those countries which represent a problem for the nuclear non-proliferation regime, i.e. an obstacle to its consolidation, or even a threat to its survival (1). Problem countries are also, in most of the cases, a headache for each other.

There are current problem-countries and potential problem-countries.

Current problem-countries are:

- countries with a more or less open determination to acquire operational nuclear weapons. Perhaps at the moment this group lacks membership, at least as far as open, or declared determination is concerned. As it is commonly said, what governments in problem-countries want is "to keep the option open". This brings us to the following groups.

- countries which are not parties to the NPT and consistently develop nuclear technologies that are commonly considered as sensitive, i.e. uranium enrichment, spent fuel reprocessing and heavy water production.

- countries which are parties to the NPT, but which have raised suspicions as to their real intentions by developing or seeking to develop sensitive

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1 By non-proliferation is meant here "horizontal" non-proliferation. This is not to say that "vertical" proliferators do not represent a problem, but the problem is a different one.

technologies which make limited or no sense with respect to stated peaceful purposes. The NPT commitment, as it is well known, can be reversed.

Potential problem-countries are:

- all countries that are not parties to the NPT (1) Technology naturally spreads and non-signatories, that are not currently carrying out sensitive nuclear activities may one day do so.

-all countries that possess advanced know-how in the nuclear field, including sensitive technologies. Current political and security considerations that have advised them against making nuclear weapons, may subside one day. The step between withdrawal from international non-proliferation commitment(s) and acquisition of effective military nuclear capabilities would be a relatively short one in time.

The reader can easily imagine the countries which fit into the groups listed above, though some boundary-line uncertainties may be found. (The only clearly defined group is the one of non-NPT signatories listed in the foot note)

The list and the single cases of the current problem countries have been

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1 The countries that have not signed the NPT are: Albania, Algeria, Angola, Argentina, Bahrain, Bhutan, Brazil, Brunei, Burma, Cambodia, Chile, China, Cuba, Equatorial Guinea, France, Guinea, Guatemala, Guyana, India, Israel, Malawi, Mauritania, Monaco, Mozambique, Oman, Niger, North Korea, Pakistan, Papua New Guinea, Qatar, Sao Tomé and Principe, Saudi Arabia, Seychelles, South Africa, Spain, Tanzania, Uganda, United Arab Emirates, Vietnam, Zambia, Zimbabwe.

so amply discussed in the literature, with thorough analysis of their actual capabilities in the nuclear sector and their possible motivations to acquire nuclear weapons that to return to it would be of little use. Commonly considered current problem-countries are mentioned in the Appendix with synthetic notes. Only a few additional comments are made here.

- The number of current problem-countries is smaller than most observers and policy makers had predicted. Pessimism came both from those who wanted to alert against a reversible risk and those who considered proliferation inevitable.

- Problem-countries have created limited problems in the last few years. Proliferation is not at a standstill, but has been progressing in slow motion (1). The fact that no major open step towards the spread of nuclear explosives has taken place since 1975 confirms that time is an asset in non-proliferation policies. Slow motion helps make time available. However, there cannot be any safe future time assumption, since events may move fast again at any moment.

- Most of the current problem countries are also new or potential supplier countries. This fact is mentioned here not only to recall that certain countries are treated as such in another panel of the seminar, but also to

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1 I have discussed this in an article ("Nuclear Non-proliferation: After the Pause What?") soon to be published in "The International Spectator", IAI, Rome. A major factor determining the slow motion is the prolonged economic recession in developing countries. It is also argued in the article that recent and present conflicts in the third world have strengthened the case for efficient conventional forces and weapons rather than for a necessarily crude nuclear device.

underline that policies towards problem-countries and the future of the international nuclear market are obviously interrelated. This market is today very limited and remains attractive only because of its political connotations and because of the residual expectations for future recovery. Expectations in the nuclear sector have always tended to be high.

- The attempt of further assembling those countries in subgroups according to geo-political or technical considerations opens endless arguments and is often misleading. Each country has its specific historical background, current situation and future prospects, however strong mutual links may be. Policies have then to adapt to this specificity and be partially specific themselves. However, a certain degree of categorization of policies is necessary not only for the analytical purpose of a paper such as this one, but also in order to help assemble a minimum consensus around them.

#### Policy options

Policy options have necessarily to consider, as will be done in this paper, the current problem countries. It is important however that potential problem-countries also be taken into account. What is at stake is the future of the non-proliferation regime.

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Assuming that:

- despite the present slowdown in installment, nuclear power will remain a relatively competitive and safe energy source, attractive on a sound basis for a number of countries;

- technology is inevitably spreading, so that efforts can only be devoted to further separating civil activities from military ones; the boundary between current and potential problem-countries depends on the strength and the extension of the non-proliferation regime on one side and security perceptions on the other. As far as the latter is concerned, there cannot be any non-proliferation arrangements however strong and long standing that would resist a growing sense of threat for which a military nuclear capability may be, or appear to be a credible deterrent. Global or regional security conditions will remain a dominant factor in making potential problem-countries stay potential. The policy options which follow have been discussed taking this aspect into consideration too.

As far as non-proliferation is concerned, three lines for policies toward problem-countries can be considered.

1) Strengthen cooperation among present suppliers.

The international nuclear market is limited and so are its future prospects. Western countries are likely to remain dominant in it. The so called south-south trade may remain marginal, and the eventual recourse to it more instrumental

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than real. What is important then is first of all to restate and update the current supplier arrangements. Trigger lists would periodically be reviewed, improved, enlarged. The London guidelines may be here and there refined. A variable would be the degree of publicity given to the procedure: depending on policy considerations, such actions may be performed more or less covertly, while self-restraint continues to be applied autonomously, or there could be some deliberate publicity given to this continuing supplier cooperation.

A further development would be to formulate some sort of extended safeguards, a compromise version of full scope or comprehensive safeguards, on which the US, stretching somehow from NNPA, and those suppliers which so far have refused them would be able to agree. This would represent an important extension of the guidelines and would de facto make recipient countries very close to being on the same footing as NPT parties, whether they like it or not.

A third step in this direction would be to agree on sanctions in advance. This opens the usual argument: which sanctions? Against what? Should sanctions be confined to the nuclear field or go to other fields like military cooperation or economic cooperation? Which acts would trigger sanctions? These uncertainties make the chances of such an agreement practically nil. The problem remains in

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so far as a possible new proliferation step, especially if a dramatic one, would be likely to attract some sort of sanction, more or less open, from this or that country, but also to display new divergencies and arguments among suppliers.

A strengthened cooperation among present suppliers would in fact further tighten conditions on a market that has already come under a fairly effective control. The sustainability and the consistency of such supplier agreement would however be in doubt if the international market were to reopen for some reason, in the presence of high production overcapacity in the entire Western nuclear industry. It is at least conceivable that a necessary condition would be the advent of some sort of market sharing agreement either by country or by product. On the other side stronger supplier cooperation would encourage new efforts by problem countries to improve their technologies in autarky and make the domestic consensus that already exists in most cases around such efforts, however costly, even wider and stronger.

The potentials of uncontrolled supplies generate the next option.

2) Have new suppliers joining present supplier arrangements

If the international nuclear market is bound to expand, it is better that some control is also established on the



export activities of the new suppliers that are likely to enter it. It is in the interest of the present suppliers to have the domino stopped further downstream. It represents damage limitation and it prevents unfair competition by the new suppliers in their mutual relations and in dealing with the handful of remaining recipients.

It is in the interest of new suppliers too. Export responsibility has been contagious. France was an example, China is apparently becoming another. Most of the prospective suppliers have local and global reasons not to help proliferation. Even if they claim solidarity against discrimination, they too might eventually find it better to discriminate.

How such control would come about is not difficult to conceive. Each country can make a quite independent and unilateral declaration, stating the chosen code of conduct in its own nuclear export activities. Most likely, such code would turn out to be very similar to the London guidelines, which provide the easiest model one can think of.

The problem is whether, how and how much pressure should be exerted on the country in order to have it make such a declaration. Should it be left to make its own choice? or should one give encouragement without any specific nuclear quid pro quo? or should some flexibility

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be adopted in nuclear trade with the country? or, finally, should it more or less openly be invited to join the club?

Problem-countries that are prospective suppliers are frequently sensitive to prestige considerations - often a factor in their being a problem country. The opening of a third circle of suppliers, after the original seven and the others that joined them, is likely to contribute to their status perceptions. Continuing on this speculative line of thinking, one may also argue that such new status perception may help the balance between substance and appearance in the famous "keeping the nuclear weapon option open" to move towards the latter.

The outcome of this second policy line is very undefined. On one hand, besides expanding control over the nuclear market, the result could be achieved of reducing solidarity within the "Group of 77", where several problem-countries have exerted a certain leadership. On the other hand, it is not known whether, and how many problem-countries will make the commitment. Moreover, it cannot be said how solid and stable the commitment is. What is most likely is that "good guys" become even more disappointed as they see the "bad guys" being courted. This brings us to the next option.

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3) Stick to, and improve (if you can) the NPT and related business

Increasing doubts among NPT parties as to the wisdom and profit of their having signed the treaty may eventually undermine its standing, possibly also that of the IAEA, and ultimately the entire non-proliferation regime. Thus priority number one should be the strengthening of the non-proliferation treaty and the Agency of Vienna. How can this be done?

One main reason for the NPT system's weakness is the continuing arms race, cited by governments of the Group of 77 as non-compliance by the "Haves" to the treaty predicament (art. VI) that would justify retaliatory non-compliance by the "Have-nots". In the current international phase there is little that can be done about this argument which was already fatal to the 1980 Review Conference. It is true that the political sense of the link between vertical and horizontal proliferation which was spelled out in Art. VI of the treaty, is increasingly arguable, but there is little likelihood that it will ever be given up. At best it may be softened.

Chances are also slim as to the possibility of new acquisitions to the NPT.

What could conceivably be achieved is (in the order of increasing relevance and decreasing feasibility)

- Efforts are deployed in order to prevent a failure of the 1985 Review Conference, acting first in the

preparatory committee and managing potential trouble-makers in the conference.

- Consistent steps are taken in order to strengthen the IAEA and its safeguarding activities, preventing the crises that have recently shaken the Agency. In addition, conciliatory attitudes may be developed in existing international fora, like CAS, in order to reach an overall atmospheric improvement.

- A proper mix of encouragement and pressure is exerted in order to obtain new adhesions to the Tlatelolco treaty which exerts an action roughly parallel to the NPT in Latin America.

- In the absence of new signatures below the NPT, some sort of general statement is worked out in order to back up the treaty and the entire non-proliferation regime, with the participation of some important non-NPT parties that appear to have come closer to it, such as France and possibly China, among nuclear-weapon states, or such as Saudi Arabia and possibly Spain among non-nuclear-weapon states. The PUNE conference may be an appropriate place for this general statement.

The pros and cons of this option are equally visible. Among the former there is the necessity of the survival of the back-bone of the non-proliferation regime, i.e. the Treaty. The 1995 deadline of the NPT is coming into sight.

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If action is not taken soon the prospects for renewal or, hopefully, for improvement may be irreversibly affected.

However the treaty has an inbuilt weakness which is almost impossible to reduce because of the absence of the necessary consensus. Suppliers' agreements have become necessary to compensate such weaknesses with the result of reducing the wider consensus. In order to restore it, should supplier solidarity, which still presents some remaining loopholes, be made more covert if not looser altogether? Or should such loopholes be looked at and plugged to prevent sensitive transfers? If the latter were given priority, the reader is brought back to option one.

It is common wisdom that among a number of policy options not one has to be chosen but rather a proper mix has to be worked out. This case does not escape common wisdom. However, as I have tried to show, there are several incompatibilities or contradictions, that make it difficult to achieve such a mix. Moreover, supplier state governments have different views and give different priorities to the listed options.

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On the whole they share a minimum viewpoint: in the current phase of pause in a field that has experienced bitter exchange in the recent past, one must be careful in not affecting what exists and holds, i.e. the IAEA safeguard system and the London guidelines. The temptation would be strong to do nothing: quieta non movere. But problem-countries are there to remind people that proliferation, however relatively quiet for the time being, remains on a sliding plane. Trouble lays ahead, deadlines approach, inevitably. Action must be taken.

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Appendix

COMMONLY CONSIDERED (CURRENT) PROBLEM COUNTRIES

(in alphabetical order; underlining emphasizes origin of "problem")

ARGENTINA: non-NPT. Signed (but not ratified) Tlatelolco.

Building unsafeguarded research reactor, reprocessing plant and enrichment (pilot?) plants. Has safeguarded (imported) power plants. Has indigenous uranium. States peaceful but independent program. Exports reactor components and research reactors.

?BRAZIL: non-NPT. Signed and ratified (but not brought into force) Tlatelolco. Party to LTBT. Building safeguarded enrichment and reprocessing plants. Has some unsafeguarded materials. Has and is building safeguarded (imported) nuclear power plants. States peaceful but independent program. Exports nuclear components.

INDIA: non-NPT. Party to LTBT. Exploded device in 1974. Has unsafeguarded research reactors and reprocessing plant. Building unsafeguarded power reactor using natural uranium. Safeguards on imported facilities. Produces some heavy water. States detonation was "peaceful".

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IRAQ: Party to NPT and LTBT. Has small safeguarded training reactor. Large safeguarded research reactor (with "hot cells") under construction was bombed by Israel in 1981. Has highly enriched uranium originally for such reactor. After bombing stated right to develop A device.

ISRAEL: non-NPT. Party to LTBT. Has been attributed 20 to 50 operating nuclear devices. Has delivery capabilities. Has unsafeguarded research reactor and reprocessing plant. Has safeguarded (US) research reactor. States it will not be first to introduce nuclear weapons in the Middle East.

?LIBYA: Party to NPT and LTBT. Has safeguarded (USSR) research reactor. Has bought (and partly retransferred to Pakistan) natural uranium. Has unsuccessfully shopped for sensitive materials and information. Past statements about right to have a bomb.

PAKISTAN: non-NPT. Party to LTBT. Has unsafeguarded enrichment and reprocessing facilities. Safeguards on imported facilities but IAEA stated it cannot assure no diversion. Has unsuccessfully opened a bid for power plant.

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SOUTH AFRICA: non-NPT. Party to LTBT. Has unsafeguarded enrichment plant capable of producing highly enriched uranium. Stopped in 1977 preparations for underground nuclear test. Uncertain association with 1979 "flash" in S. Atlantic. Has safeguarded (US) research reactor and (French) power reactors. Has indigenous uranium and exports it

?SOUTH KOREA: Party to NPT and LTBT. Accepts FSS. Large nuclear power program. Was dissuaded from acquiring reprocessing facility.

?TAIWAN: Party to NPT and LTBT. Accepts de facto FSS. Large nuclear power program. Was dissuaded from building reprocessing facility.

#### Legenda

NPT: Non-proliferation Treaty

LTBT: Limited Test Ban Treaty

FSS: Full-scope Safeguards

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