

# The 55th Pugwash Conference on Science and World Affairs

**60 Years After Hiroshima and Nagasaki**  
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## Working Group 2 Report

### **Non-proliferation, Arms Control and Disarmament: Multilateral Initiatives**

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The working group discussed the Nuclear Proliferation Treaty (NPT) 2005 Review Conference and its consequences on the future of the treaty, challenges faced by the treaty and possible ways to move forward, regional problems of nuclear proliferation, risks of nuclear terrorism, the need for further progress in nuclear disarmament, outer space security issues, and the situation regarding chemical and biological weapons conventions. The working group was composed of 33 members with background in science and diplomacy from nineteen different countries.

Below is brief description of the points discussed.

### **NPT 2005 Review Conference**

There was a deep and widely shared concern about the failure of the NPT 2005 Review Conference to achieve results in strengthening the implementation of compliance with the treaty. Although the views about the specific causes and measures to be taken were somewhat different. Many participants felt that the five nuclear weapon states parties fall short of fulfilling their commitments to nuclear disarmament and arms control as expressed by the final document of 2000 Revcon (13 steps). At the same time there was a general feeling that the upcoming September UN summit in New York offered an opportunity for the world leaders to address explicitly the issues of nuclear disarmament and non-proliferation.

### **Future Course of Action to Strengthen the NPT**

Several proposals were presented by the members regarding the priority steps in this area, such as,

- Reaffirmation of the commitment for nuclear disarmament under Article VI of the NPT and concrete steps in that direction
- Upholding moratorium on nuclear test explosion (pending the entry into force of the Comprehensive Nuclear-test-Ban Treaty)
- Negotiation on a Fissile Material Cut-off Treaty
- Model Additional Protocol as the standard for verifying compliance with Article III of the NPT

Other proposals were to reach an agreement on the no-first use of nuclear weapon, address the problem of tactical nuclear weapons, to prohibit the development of new nuclear weapons, the examination, for example, by like minded states, of the legal, political and technical requirements for negotiations leading to a nuclear weapons free world. It was further proposed that the introduction of legal dispute settlement body to address issues of compliance with Article VI of the NPT would help in breaking the deadlock on the issue of disarmament.

#### **Article IV and Peaceful Use of Nuclear Technology**

The group also discussed issues related to Article-IV (peaceful uses of nuclear technology). Importance to explore multilateral options for improved control over sensitive parts of the nuclear fuel cycle was stressed, along with the need to ensure the right of NPT state parties to develop nuclear technology for peaceful purposes and to have guaranteed supply of nuclear fuel.

Based on the argument that it is not possible to eliminate the possibility of nuclear proliferation from a nuclear energy fuel cycle, it was suggested that the use of nuclear energy should be banned in a phased manner. Renewable energy sources were suggested as an alternative which are cheap and environmentally friendly. There was strong reservation from some members on the proposal to ban the use of nuclear energy. However, it was decided that alternative sources of energy should be explored.

#### **Regional Nuclear Situations**

In 1998 there was a major setback to the NPT regime when both India and Pakistan conducted nuclear weapon tests; it was proposed to study ways and means to bring them into the nonproliferation regime.

Regarding other regions there was widely shared hope that the ongoing efforts to resolve the disputes around the Iranian nuclear program as well as six party talks on North Korea would bring speedy positive results.

In general the need to achieve the universality of the NPT was strongly emphasized.

#### **Nuclear Terrorism**

In the context of discussion on nuclear terrorism it was emphasized that there is urgent need to secure the existing stockpiles of the nuclear material and the elimination of such material as soon as possible. It was suggested that technically it is possible for a terrorist group having access to sufficient quantity of Highly Enriched Uranium (HEU) to manufacture a primitive nuclear explosive device to destroy a large part of a city, killing many people. It is important to note that this primitive nuclear explosive device is much easy to manufacture in comparison to a nuclear weapon developed by nuclear states for military use. Some steps have been

taken to improve the accounting and physical security of the nuclear material through cooperative arrangements. Another important development in this regard is the 1993 "HEU deal" between US and Russia to down-blend the surplus stockpiles of HEU of Russia to Low Enriched Uranium (LEU) to sale it to the United States Enrichment Corporation (USEC) but the progress in this is too slow.

### **Outer Space Security**

It was pointed out that there is no justification for deployment of weapons and weapon systems in space, in particular as it would lead to arms race in space. Keeping in view the existing efforts to develop space-based weapons including the readiness of deployment of a 'test bed" system by the United States, following steps were recommended:

- Pugwash should support efforts to urgently negotiate a prohibition on space-based weapons and the adoption of a system of common security in outer space, a legal mechanism which deals comprehensively with the various problems of space security.
- A working group/workshop of Pugwash should be setup to look into the space security issues.

### **Chemical and Biological Weapons Conventions**

The group received a detailed report on the status of the implementation of the conventions prohibiting respectively chemical and biological weapons. It was emphasized that efforts to achieve universality of the two conventions and to improve situation regarding their respective national implementation measures should be intensified.