

# **The 57th Pugwash Conference on Science and World Affairs**

## **5<sup>th</sup> International Student/Young Pugwash Conference**

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[board@isyp.org](mailto:board@isyp.org); [www.student-pugwash.org](http://www.student-pugwash.org)

Rapporteurs: Parthiban Rajasekaran & Joellen Pretorius

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### **Report**

This report summarizes the proceedings and outcomes of the 5th annual International Student/Young Pugwash (ISYP) Conference, held in Bari, Italy from 20 to 21 October 2007. The 20 students in the working group discussed topics that originated in papers prepared for possible publication in the ISYP Journal at [www.scienceandworldaffairs.org](http://www.scienceandworldaffairs.org). This document is the report of the presentations and discussions from the working group but its content is the sole responsibility of the rapporteurs.

We are grateful for the opportunity to share our thoughts with the Pugwash Conferences on Science and World Affairs. It is our hope that this report will enrich the ideas and actions of the entire Pugwash Community.

The threats faced by humanity in the 21<sup>st</sup> Century are interrelated, complex, and not easily delineated into different categories. Climate change, a non-military and global threat, may well lead to localized, military confrontation. Likewise, no discussion of nuclear energy for development is complete without consideration of the proliferation risks. However, to order our deliberations we made a distinction between military and non-military threats, although we recognised that the two are often interrelated.

### **Military Threats to Security**

In the area of military threats to security, discussions encompassed both regional and global issues. Papers were presented that evaluated and compared the security complexes and security architecture in three geographical areas of importance to the location and theme of the conference: Europe, the Aegean and the Middle East.

It was argued that European security architecture is well-developed through NATO, the European Security and Defence Policy and the expansion of this architecture to Eastern European countries. This expansion has unfortunately coincided with an increase in armament production and acquisition.

Aegean disarmament prospects are related to the resolution of conflict between Turkey and Greece with the status quo maintained by Turkish and Greek soldiers on a divided Cyprus. The security conception in this area is still based on realpolitik, but impending Turkish EU membership may help transform this conception to improve prospects for disarmament.

The security complex in the Middle East is characterized by different faultlines: that between Israel and Islamic countries, between Sunnis and Shias and lastly, countries sympathetic and not sympathetic to the West. The institutions of security in the Middle East are weak compared to those of Europe owing to shifting alliances between states and the absence of a regional institution of which Israel, Iran and the Arab states are members. The Arab League involves itself in the Israeli/Palestinian peace process, but its efforts are hampered by resources and membership limitations.

Looking at the security relationship between these areas, it was noted that the unbalanced nature of security architecture makes interaction in the area of defence between Europe and the Middle East difficult. The increase in armaments in both regions, especially the development of mid to long-range missiles, anti-ballistic missile systems and the doctrine of pre-emption as introduced by the US through NATO are impeding factors. It was argued that in the institutional sphere the European neighbourhood policy and the Arab League could provide mechanisms for confidence building and conflict resolution, but the participants noted the need for a Special Council for Europe and the Middle East

In terms of the relationship between the European Union and the Aegean security complex, it was argued that Turkish membership in the EU could extend the European security community to the Aegean and in that way socialise the Greek and Turkish military in cooperative, rather than realist notions of security. Shifting the goal posts of Turkish membership is not conducive to security in the region, although the view was expressed that Turkish membership of the EU may only internalise the Greek/Turkish split. The options for security assurances from the EU and economic integration of Turkey into the EU were explored.

To address security threats in these regional contexts, it is important to consider the global security situation, focussing particularly on the interactions between the US and other countries and their implications for international security.

An international norm prescribes nuclear exports for peaceful uses only and the Nuclear Suppliers Group (NSG) is critical to the maintenance of the norm. A US-India nuclear energy cooperation deal that would allow the export of nuclear technology and assistance to a country outside of the non-proliferation regime, would only challenge this norm if India failed to prove that imported nuclear material would not be diverted to military use. At a minimum India must separate its military and civilian facilities, negotiate IAEA safeguards and join the CTBT.

The US plan for Ballistic Missile Defence (BMD) was considered from a Canadian perspective. Canada has vetoed the use of NORAD for BMD purposes on the grounds that BMD may stimulate nuclear proliferation and the weaponisation of space. Non-participation may cost Canada in terms of security cooperation with the US, but participation could erode Canada's middle power status.

The group made several conclusions. First, there is a clear need for a political forum that would improve interaction, confidence, and predictability between countries in Europe, the Aegean and the Middle East. Second, India, Pakistan and Israel must be brought into the non-proliferation regime. As a first step this means that the NSG and the US congress should hold India to non-proliferation norms before the US-India nuclear deal is legitimised. Third, true security requires a longer-term vision that considers implications for future generations when faced with difficult security choices. Canada, in particular, must adopt a longer-term strategy when considering whether to join US BMD plans. Fourth, we recognize the need to overcome the impulse to justify one's own country's transgression of non-proliferation by referring to other's action. Being part of the problem will not solve the problem.

### **Non-Military Threats to Security**

The human race faces grave non-military-centred threats to human security. Climate change, global pandemics, pollution, scarce water resources, and scientific illiteracy are some of the serious threats that are often overlooked in the shadow of terrorism and nuclear proliferation.

Shared resources necessitate a shared responsibility. Environmental security threats cross state boundaries and expose the weakness of a purely national approach to human security.

Climate change is an environmental threat of increasing concern. Its impact can already be seen in conflict areas such as Darfur, where desertification has reduced the availability of arable land and led to a humanitarian crisis. Proposed solutions to the climate change threat must take into account conflict between populations competing for increasingly scarce resources and the effects of climate-induced mass migration.

Increasing pollution of the marine environment demonstrates the international implications of domestic environmental actions. Land-based pollutants do not restrict themselves to the area in which they are used; instead they are carried to the marine environment through domestic water bodies. The pollution therefore does not respect state boundaries and must be treated as a threat to the global environment and to human security. There are well-established international norms governing the marine environment and freshwater areas; these must be synchronized to take into account the interrelationship between the two systems.

The effects of conflict in resource scarce areas can be demonstrated in specific regional contexts. The barrier built by Israel along the disputed boundary with the West Bank illustrates the environmental impact of military decisions. The fence is either blocking or redirecting the natural flow of water bodies across the borders. This interruption can affect the availability and quality of water in these areas.

It is clear that global threats, especially those affecting the environment, require global solutions. It has been suggested that the existing Responsibility to Protect doctrine, which suggests that the international community has a duty to intervene in domestic affairs to protect human rights, be extended to environmental security. However, there appears to be great potential for abuse of the Responsibility to Protect doctrine as applied to environmental

issues. There are concerns that it could be used to deny developing nations, in particular China and India, access to the energy needed to compete on the world stage.

Increasing antibiotic resistance represents an overlooked threat to human security. Bacterial infections resistant to one or more antibiotics, known as “superbugs”, pose a serious threat to global health. The high cost and lengthy development timescale involved discourage pharmaceutical companies from investing in antibiotics to counteract these superbugs. Recombinant genetic technology, better management practices and global public education on prudent use of antibiotics are necessary to improve the situation.

Religious non-state actors play important roles in supplanting, supporting, or contesting how states provide for the welfare of their populations. This means that, while religion is often construed as a threat to human security and a source of conflict, it can also be used to promote human security. This brought us to a discussion of the relationship between religion, identity and terrorism.

Al-Qaeda and the Taliban are often and unhelpfully conflated by policymakers in the West. The Taliban reject modernity and what they see as the corrupting influence of reason, and are essentially non-political in character. Al-Qaeda, by contrast, is an explicitly political movement which embraces modern technology; unlike the revivalist Taliban, it espouses violent revolutionary change. The failure of Western policy to differentiate between these two very different groups is indicative of a greater failure in the region; the inability of policymakers to differentiate between disparate groups and ideologies is a serious impediment to any attempts to create regional security.

How do we address these threats? A U.S. group is developing a multi language glossary of military security terms as a “Track II” diplomacy initiative. This programme identifies and describes terms in the nuclear security vernacular of China and the US to serve as a resource for better technical understanding, confidence building and eventual negotiation between these two countries in this area. The increasing intersection of scientific and political issues necessitates improved education. A France-based initiative encourages high school children in deprived areas to consider science as a career. Addressing the drop in science enrolment while encouraging the use of science education as a tool for social justice increases human security. Finally, there is a need for mediators and translators who could help the military, business, scientists and ordinary people to communicate and build a humane and liveable world. It is in this capacity that we see the greatest role for organizations such as Pugwash. By bringing together those from different backgrounds, ideologies, and regions, we hope to create an environment in which it is truly possible to remember our humanity.