

**Report of the
Working Group Meetings of
International Student / Young Pugwash (ISYP)**

*15-17 July 2003,
Halifax, Nova Scotia, Canada*

*53rd Conference on Science and World Affairs:
'Advancing Human Security: the Role of Technology and Politics'*

1. Introduction

The present document reports the discussion of over 30 students and young professionals from 17 countries who participated in the ISYP working groups preceding the 53rd Pugwash Conference entitled 'Advancing Human Security: the Role of Technology and Politics'. Each participant presented a paper along one of the following topics suggested by the senior Pugwash Conference organizers:

1. Nuclear Weapons
2. Weaponization of Space and Missile Defense
3. International Cooperation and Human Security
4. Terrorism
5. New Technology for Human Development and Security
6. Mitigation of Global Environmental Change: Beyond Johannesburg.

Two ISYP Working Groups were formed: 'A' (comprising themes 1,2 and 4) and 'B' (comprising themes 3, 5, and 6). The first two sections offer the rapporteurs' report of working groups 'A' and 'B' respectively. Section 'C' offers an outline of the presentation made by ISYP to the Pugwash Council on July 17, 2003, including recent changes in working dynamics, our evolving sense of purpose, ongoing and new projects, recommendations for the Pugwash movement from the ISYP perspective, and a few questions to guide future dialogue between and within our organizations.

As students and young professionals 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 can contribute to enriching the ideas and actions of the Pugwash Community.

Furthermore, we would like to thank the note-takers for the contribution, in particular Moira Ann Goodfellow and Pablo Suarez.

Irna van der Molen
Joelien Pretorius

A. REPORT ON ISYP WORKING GROUPS A (1,2 and 4)

Facilitator: Hugo Estrella
Rapporteur: Joeliën Pretorius

Group A included three sub-groups, namely a sub-group on nuclear weapons (1), weaponization of space and missile defense (2) and on terrorism (4). Because of the overlap of the themes and practical considerations, these were all discussed in one working group.

1. Nuclear weapons

The working group considered three themes with respect to this topic:

a. The Non-Proliferation Treaty (NPT)

We currently face a crisis in the non-proliferation regime: both horizontally (India's and Pakistan's nuclear weapons tests, Israel's covert nuclear weapons programme, North Korea's withdrawal from the NPT, Iran's uranium enrichment programme) and vertically (the US plans to develop low yield nuclear weapons that can be used in conventional warfare – mini-nukes). This highlights certain flaws in the NPT, namely:

- Nuclear weapons states have preached to non-nuclear weapons states, but have not kept their end of the bargain, which is ultimately to give up their nuclear weapons. This may be perceived as unjust for non-nuclear weapons states and if threatened these states may decide to withdraw from the NPT as North Korea did;
- An incoherent and insufficient response to the withdrawal of North Korea as well as to countries outside of the NPT (Israel, India, Pakistan). The lift of sanctions on India and Pakistan and the military aid that these countries receive may send a message that acquisition of nuclear weapons has little diplomatic cost;
- Non-nuclear weapons states could acquire a nuclear fuel-cycle under NPT for peaceful purposes, but then decide to withdraw and to pursue a weapons programme;
- Proliferation to non-state actors (e.g. terrorists) is not included in the NPT framework.

At the 2000 Review Conference the NPT was extended indefinitely. Although, at the time, this was considered to be positive, it may be that these flaws are so ingrained in the structure of the Treaty that it would have been better to negotiate a new treaty altogether. In the absence of this possibility, several suggestions came up to strengthen the NPT such as the support of a fissile material cut-off treaty and additional protocols or even a treaty like the proposed Nuclear Weapons Convention (providing for a total ban on nuclear weapons and infrastructure supporting them) to transcend the NPT.

b. Regional hot spots: South Asia

The perceptions in India and Pakistan regarding nuclear weapons can be categorized as:

- Nuclear optimism: also referred to as nuclear hawks, people who hold this view actively support the nuclear weapons programmes and are present in military and government think tanks;
- Nuclear pessimism: also referred to as nuclear doves or abolitionists, people with this view are against nuclear weapons and are present in academia and some NGOs; and
- Nuclear pragmatism: people who have this view take the realist position that the nuclear genie is out of the bottle, and it is best to manage the problem through robust command and control systems and confidence building measures between India and Pakistan.

The question was raised whether Pugwash can entertain the pragmatic position. It seems that some hawks turn into pragmatists when they retire from government establishments and then it is often too late to affect a real change in governments' programmes.

c. Nuclear Weapons Awareness

In Britain, after the end of the Cold War, the number of people who regard nuclear weapons as an important issue decreased significantly. It is likely that there is a similar trend in other countries. The lack of awareness extends to:

- The horrific consequence of the use of nuclear weapons in terms of human and environmental destruction;
- The financial cost of nuclear weapons;
- Arguments that nuclear weapons may not increase the actual security of states;
- The legal obligations of nuclear weapons states to de-nuclearize.

Awareness-raising programmes should start by identifying the counter-arguments to the reasons that governments give for having nuclear weapons and these are:

- Threat perception and deterrence: the decision to acquire nuclear weapons are often rooted in historical animosity between countries or a strategic domino effect, where one country acquires nuclear weapons in response to another country's weapons programme. It is, however, questionable whether nuclear weapons improve the security of one country vis-à-vis other countries, or could prevent conventional warfare through deterrence.
- Sign of national prestige: it is fair to say that some governments may see their nuclear weapons as essential to be major powers in the world and use this to gain public support. In the case of Pakistan's nuclear weapons, they may be portrayed as the 'Islamic bomb(s)'. This view is perpetuated by countries such as France and Britain hanging on to their nuclear weapons in the absence of a real threat to their security.
- A weapon of the poor. Conventionally weak states might acquire nuclear weapons as a cheaper option than spending a lot of money on conventional weapons to reach comparable levels of military might. However, India and Pakistan still spend money on conventional forces and their nuclear weapons have not been successful in diminishing the intensity of their conflict.

With regard to nuclear weapons awareness initiatives, the working group was briefed on two projects:

- An interactive on-line quiz designed by Oxford University Student Pugwash where questions are asked and information is given about the amount of nuclear weapons that exist, the cost of nuclear weapons and so forth, and where the issue is placed in the broader context (www.oxford.ac.uk; search for Student Pugwash).
- An exhibition of photographs from the Hiroshima Peace Memorial Museum by physicians for global survival by a student group in Halifax, which shows the aftermath of the use of nuclear bombs.

Other suggestions were:

- Nuclear hawks in the political and military realm should be identified and the public should be made aware of their positions;

- Awareness programmes should also be initiated in non-nuclear weapons states to inform their citizens about the perils of nuclear weapons as a measure to prevent proliferation to their countries.

2. **Missile defense and the weaponization of space**

a. *Missile defense*

- The Bush Administration has set a date for deployment in 2004/5 for a ballistic missile defense system, which will not only consist of homeland defense against inter-continental missiles, but also include US 'friends and allies';
- This will have implications for the strategic stability in North-East Asia. Countries such as China and North Korea might increase the range and amount of missiles in their arsenals to maintain strategic deterrence. Thus missile defense could lead to horizontal proliferation in the region.
- An alternative to missile defense in the region may be initiatives to obtain regional missile stability, for example, placing regionally agreed limitations on missiles that would break the security dilemma in the region.

b. *Weaponization of space*

- The issue of space weapons links up with missile defense in that interceptors may be put in space and shot from and through space. Although the 2004/5 deployment plan does not include space weapons, there are plans for developing a test bed in space;
- The US' withdrawal from the Antiballistic Missile Treaty (ABM) in order to pursue missile defense, left a legal loophole to test weapons that could be put in space (the Outer Space Treaty only prohibits weapons of mass destruction in outer space and all other weapons on celestial bodies).
- It should be noted that space is already militarised and that the US is increasingly reliant on space for military operations. It is thus often argued that weapons in space are strategically justified for three reasons: to protect military assets and superiority, to deny it to other countries, and to fight from space.
- On close inspection: if cost-benefit analyses are performed, it shows that military advantage is only short-term
- Any security advantage would be degraded once other states also deploy state weapons (In other words, the US might be worse off than they were before initial deployment).

3. **Terrorism**

- Terrorism is often sketched as a characteristic of the Post-Cold War context, but it should be recognized that it existed long before then. However, after the September 11 attacks, there is a fear that terrorists may acquire WMD and missiles to deliver them (an argument to support the development of missile defense).
- In the aftermath of September 11th, anti-terrorist legislation in Canada was rapidly adopted without sufficient consultation.
- The implications of this for civil liberties are now being realized and this has been cause for public debate.
- One of the lessons learned from the process is to explore the insertion of a 'sunset clause' in rushed legislation to ensure a review mechanism and, more in general, to promote civil society interest in parliamentary / congressional processes when important legislation is passed.

- The idea that the International Criminal Court should prosecute terrorists as opposed to national governments was also discussed. This might establish an international norm of condemning terrorism and promote international law at the same time.
- All of this should be seen in the context of human security. International economic injustice, international financial institutions and foreign policy behaviour of strong states in developing countries perpetuate poverty, inequality and a break-down of structures. These circumstances can be a breeding ground for terrorism as well as dictatorships.
- There is a need to make international institutions (e.g. the IMF) accountable for human security and pressurize governments to take responsibility for their foreign policy behaviour.

Recommendations for S/Y Pugwash

From our deliberations, the following recommendations are made to S / Y Pugwash:

1. New strategies should be explored regarding the NPT or new treaties that could come afterwards. Awareness-raising is a key priority as well as being informed about changes in military strategies such as the inclusion of 'small' nuclear weapons in the US military strategy.
2. ISYP should be involved in the Conference on Disarmament and feed ideas into the discourse.
3. ISYP should liaison with other NGOs, especially International Network of Engineers and Scientists for Human responsibility.
4. At future ISYP meetings conflict-simulations could be organized as well as symposia on peaceful conflict resolution.
5. ISYP could invite Israeli and Palestinian Student Pugwash members together to discuss scientific or technological issues, such as those related to water management. This should take place in a 'neutral' setting removed from the region (Europe?).
6. Increase awareness about Pugwash among the general public
7. Make ISYP's application to be one of the UN affiliated bodies one of the major priorities coming out of this conference
8. ISYP already has a project on the weaponization of space, but it should also raise awareness within the scientific, business, and political community in the US and among allies of the US that might contribute to weaponization of space through cooperation on missile defense systems. Further attention should be paid to the impact of space weaponization on developing nations.
9. ISYP should advocate further ratification of the Outer Space Treaty as a foundation for the efforts to keep space free from weapons.
10. ISYP should advocate a 'No First Use' / Moratorium Pledge on deploying weapons in space to relevant nations, especially the US.
11. ISYP should support the efforts for an international agreement banning space weapons modelled after the Ottawa-process
12. ISYP members should write editorials in major media outlets on the space weapons issue based on sound scientific arguments to increase awareness.
13. ISYP can also create a space weapons quiz for popular education.

B. Report on ISYP Working Group B

Facilitator: Tom Børsen Hansen

Rapporteur: Irna van der Molen

An initial overview of the papers presented in Working Group B led us to identify many common features that transcended the divisions proposed by the conference organizers. Inspired by Senator Roche's encouragement at the ISYP symposium to come forward with our own unique approach, we decided to emphasize those issues which might be underexposed in discussions at the senior meeting, and to form the sub-groups along three cross-cutting issues that, in our opinion, provided a better platform to guide our discussions:

- a. Grassroots aspects of human security and new technologies
(facilitator: Tom Børsen Hansen, note-taker: Moira Ann Goodfellow)
- b. International cooperation and human security
(facilitator: Joanne Macrae, note-taker: Irna van der Molen)
- c. Environmental Issues and development
(facilitator: Magdalena Kropiwnicka, note-taker: Pablo Suarez).

1. ISYP sub-group on grass-roots aspects of human security and new technologies

In the sub-group discussions, seven papers were presented on topics related to grassroots aspects of human security and new technologies. The papers fell in two categories: 1) grassroots science and technology and 2) post-conflict reconstruction. Both categories covered conceptual discussion and practical / action-oriented recommendations.

The idea of grassroots science refers to the production of knowledge relevant to or linked with grassroots institutions and social movements. Grassroots science rests upon particular assumptions, norms and criteria which are partly different from conventional science and technological (industrial and military) research. Grassroots scientific activity ought to be guided by inter-disciplinarity, a social responsible approach and new ways of thinking.

Grassroots institutions can benefit from the use of technology. It was argued that the internet can contribute to the growth of social movements. Limiting factors, such as access to the internet in developing countries, were addressed. The overall conclusion was that the internet can be helpful in making social movements grow.

An example of grassroots science was presented. In the Tamil Nadu, Chengulpet district, India, an attempt will be made to obtain food security through the establishment of so-called agricultural information 'clinics'. Biotechnological and ecological knowledge, as well as practical skills, will be shared with local unemployed people, enabling them to initiate effective agricultural production.

Post-conflict resolution: there is typically an abundance of small arms in civilian hands in post-conflict environments. These pose a serious impediment to post-conflict reconstruction efforts and development. They form part of an intricate cycle of insecurity, violence, and poverty. Combating this problem requires promoting cultures of peace, community development initiatives, and voluntary weapons collection programs at the grassroots level.

Peace education should be actively pursued in peacekeeping within a civil-military cooperative framework. Peace education projects should be targeted at different target groups, e.g. for different age groups. All of these groups must be approached in a manner corresponding to the characteristics of their group. Peace education programs should address the concept of negative peace (absence of violence) and contribute to sustainable peace.

Peace education and peace culture are reflected in a nation's peace history. Cultures which have a history of peacefulness are better equipped and more likely to adopt a culture of peace, following a conflict or other type of violent episode, than other types of culture. Creating cultures of peace is closely linked to peace education. But how is this accomplished?

The Russell-Einstein Manifesto is a good document and should be used to actively address current science and world affairs issues within a framework of economic democracy. This would ensure the inclusion of all decision-making processes related to new technologies.

2. ISYP sub-group on international cooperation and human security

We acknowledge that geographic and cultural differentiation is required when talking about a concept as complex as human security. There is a human security index but this index needs further contextualisation. State security and human security cannot be seen in isolation, but at the same time, it would be naïve to assume that all states consider human security as a main priority. A state can even be a threat to human security if particular groups are prevented from having access to relevant resources.

Additionally, one should distinguish between state security and state capacity for the provision of governance. Human security depends to a great extent on economic, political and social conditions in countries. We have to recognize that some local and regional conflicts cannot simply be solved by military intervention. It is not only useful but also necessary to invest in non-military activities to increase human security.

One of the issues not always included in the debate on human security is how conflicts are affected by the protection or strengthening of religious, ethnic and national identity. We need to understand the complexity of structural conditions, temporal factors and triggering events which can result in political conflict.

It seems that we have accepted a hierarchy of values in the human security debate, in which some aspects, like individual liberty, are considered more important than other values, such as collective responsibilities. This hierarchy is often reflected in the foreign policy agenda of many countries. The question is: how useful is the definition of human security if it doesn't match people's perception? This is where dialogue comes in, as well as accountability and transparency, which are also elements of the so-called 'good governance' debate. Since this debate has its own political history and agenda, there should be a serious effort to open dialogue about different perceptions of human security, accountability and democracy, as these are often historically determined. Not acknowledging this ignores the reality and is likely to result in ineffective policies.

Some governments have a political and economic agenda which is de facto counter-productive to human security. In these cases, one should look for complementary strategies which are tailored to the conditions in each and every country and which allow for cooperation with civil

society. At the same time, we should recognize that certain mechanisms within international organisations do not promote human security. Traditional principles such as the sovereignty of states can obstruct the implementation of human security programmes. International organisations require therefore feedback from the local level to make international cooperation more appropriate and more effective. Summarizing, the basis for ensuring human security lies in ensuring good governance which is in accordance with the reality of human (in) security as this is perceived by people at local level.

3. ISYP sub-group on environment and development

This sub-group acknowledged that our understanding of problems, our way of defining problems and the way we try to measure success is often too narrow. Additionally, the way in which decision-making processes are structured can, and often does, result in the exclusion of those perspectives which try to address complexity and interconnectedness. Simultaneously, it can result in the marginalization of the interests of weaker actors, such as women, ethnic groups, minorities, aboriginal communities and other vulnerable groups in society.

Another concern is the strong reflection of neoclassical economics in policy-formulation. The participants agreed that the perspective of neoclassical economics is misleading, and that it has too much influence in policy formulation.

There was agreement on the need to address key issues in future research, including:

- a. Incorporation of the perspectives and concerns of marginalized groups of society in problem definition, scientific research and policy implementation;
- b. Exploration of creative ways to translate the complexity of social and natural systems in institutional frameworks;
- c. Investigation of the way in which economic forces are shaping science. Strengthen the funding of non-for-profit research that aims at understanding and solving the main problems that humanity faces.

In terms of concrete steps for the Pugwash movement, the following guidelines for future action were suggested:

- Address the integrated nature of development and environment in the next years' Pugwash working groups
- The 'Ethics and Science' initiative should try to have an impact on private scientific research and technological development;
- Organize an event (or a series of events) addressing the changing nature of scientific endeavours in the context of global economic change. We should pay attention to the influence of economic tendencies in policies on science and technology and try to counteract the growing impact of commercial interests on the long-range future of research agendas;
- Compile and highlight 'inspiring' research initiatives that connect science with social responsibility in order to attract young scientists to ethical aspects of science;
- While discussions and working groups are absolutely enriching, we believe that the Pugwash Conferences could allocate more energy to action-oriented initiatives;
- Allow for more creative formats for Pugwash working groups. This may facilitate the identification of concrete action items for participants.

- If senior Pugwash is interested in expanding participation from young professionals in their deliberations, ISYP would be delighted to sit down with the Seniors in order to explore mechanisms to achieve this.
- We as ISYP would like to learn from Senior Pugwash in what ways they believe we can contribute to their initiatives and discussions.

C. Outline of ideas presented at ISYP & Pugwash Council Meeting

1. Introduction:

- Thank you!
- Changes in ISYP working dynamics:
 - *Renewed atmosphere of enthusiasm and cooperation*
 - *Development of concrete ideas moving forward*
 - *Acknowledged need to document plans, accomplishments and commitments*
- Changes in ISYP conference: paper submissions, symposium, new focus on brainstorming and project development

2. Our evolving sense of purpose:

- Spread the Pugwash way of thinking among students and young professionals, across diverse disciplines and regions
- Facilitate the recruitment of potential new Pugwash members
- Provide the Pugwash conferences with a solid, thought-out young perspective
- Identify emerging set of concerns in the realm of science and world affairs
- ‘Warm-up’ young participants to enrich their individual involvement in the Pugwash working groups
- develop activities and projects tailored to the interests of Pugwash-minded young people

3. Continuing projects and new initiatives

- Organization of Student/Young Pugwash (Pre-) Conferences
- Activities within National Groups
- ISYP symposium
- Educational Project
- Information and communication technology
- Publications / Outreach
- Nuclear Awareness
 - *Korea 2004 ISYP Symposium*
 - *Sweden 2004 workshop*
 - *Nagasaki 2005 event*
 - *Activities within National Groups*
- Support for Emerging and New National Groups
- UN Reform and Affiliation
- Space Weaponization

4. Summary of ISYP recommendations to the Pugwash Council

A. Recommendations to enhance further cooperation between ISYP and senior Pugwash

1. Organize a meeting in which ISYP and senior Pugwash members together discuss the expansion of the Pugwash movement, mechanisms to address the generational gap within the movement, and looks towards the future;
2. Discussion between ISYP and senior Pugwash members on strategies to strengthen existing groups and to establish new S/Y Pugwash groups in countries such as Iran, Iraq, South and North Korea, Palestine and Israel
3. Create more opportunities in which senior Pugwash members have discussions with YP-members at national level.

B. Other recommendations

4. Hold subsequent Pugwash conferences in developing countries; organize more events in developing countries
5. Support Ottawa-type process to lead to Ban on Space Weapons
6. Pugwash/ISYP Collaboration on Nuclear Awareness
7. Round Table in Washington D.C. to educate politicians on space weapons
8. Organize events and initiatives to address the following issues:
 - Grassroots science and the role of marginalized groups in science;
 - Local perspectives of human security and the inclusion of local voices / perspectives in science, policy formulation and implementation;
 - Mechanisms of international cooperation which negatively affect human security
 - Economic forces which are shaping science

5. Brainstorming: exploring future collaboration between Pugwash and ISYP

- Questions? Comments?
- How can ISYP contribute to Pugwash efforts?
- How can Pugwash assist ISYP initiatives?
- How can the Pugwash-ISYP dialogue be strengthened?
- What are the main challenges about the long-term future of Pugwash? What should we be doing now to strategically address those challenges?