The 55th Pugwash Conference on Science and World Affairs

60 Years After Hiroshima and Nagasaki
27 July 2005, Hiroshima, Japan

Working Group 6 Report
Sustainable Development and Non-Military Threats to Security
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More than 30 persons participated in working group 6 having diverse geographical and disciplinary backgrounds. Over 20 papers and talks on diverse topics were presented during the first four working group sessions, leaving little time for discussions. Recommendations for actions of Pugwash constituencies were discussed in the fifth working group session.

Shaping the Pugwash Agenda

The purpose of the working group was twofold: It served as an incubator for identifying new topics for the Pugwash agenda, but it also addressed the basic principles of Pugwash, which should guide the identification of the new topics.

Three prime criteria were suggested in the working group to facilitate the selection of new topics for further elaboration:

1. The topic should be an emerging issue, i.e. that is largely uncharted in public awareness and still offers scope for remedial action;

2. The topic should comprise a real or potential security challenge, i.e. be a threat to sustainable peace;

3. It should pose analytical and ethical challenges to current conventional wisdoms, and therefore require a way of thinking fitted to the new circumstances.

Second order criteria may also often be used:

1. To a certain level it should be a controversial subject that, if necessary, may require the unmasking or debunking of established political discourses and of 'factoids' (scientific or popular myths or opinions that are repeated so often that they are perceived as facts);

2. It should be an analytical or conceptual challenge amenable to trans-disciplinary academic/scientific analysis and debate;

3. It should not only be relevant at the short term, but especially form a long-term issue as well;

4. The selection should take into consideration Pugwash's particular strengths and areas of core competences. If skills are lacking they should be identified and co-opted.

An argument was delivered for Pugwash to open up its agenda to deal with a framework of human security and human development. It was based on the observation that most present day conflicts show a different constellation of conflict factors than earlier "old conflicts" of the cold war era. Present day conflicts have an intrastate nature and are historical, dynamic and multi-dimensional phenomena that have multiple causes and consequences.

Non-military threats to human security

The first of UN's development millennium goals is to reduce by half the proportion of people living on less than a dollar a day, and hence to decrease the number of people who suffer from hunger. When promoting food security one must distinguish between three types of hunger: chronic hunger that is caused by poverty, hidden hunger (vitamin and mineral deficiency) and temporal hunger caused by drought, flood and civil/ethnic conflicts. All three types of hunger must be addressed by national strategies aiming at fulfilling the UN millennium goal. Such strategies must ensure that food is available, accessible to people, and that it is absorbed in the body. Meeting the UN goal of reducing the number of people suffering from hunger is closely related with the creation of jobs, and the transformation of unskilled workers into skilled ones. Fulfilling the 1st UN goal in Africa is related to an increase of an agricultural productivity. Such an increase can be created by a rainbow revolution reflecting the agricultural diversity of the African continent.

The background and outcomes of the three Pugwash exploratory workshops on HIV/AIDS viewed as a global security threat were presented. These workshops explored potential Pugwash roles in the enlarged security agenda to address threats with no enemies, of which HIV/AIDS is an example. The purpose of the third workshop was to share the experiences and lessons, both good and bad, learned thus in the management of the pandemic in South Africa and Southern Africa ("first wave countries") with countries that are expected to experience a "second wave" (China and India) in the global spread of the HIV/AIDS pandemic. Factoids regarding HIV / AIDS statistics and the role of military in the spread of HIV/AIDS were unmasked, and the history of political (mis)-management of the AIDS epidemic in South Africa was reviewed, which is of special importance for policy-makers in 2nd wave countries. The proposed fifth workshop in India will therefore be timely.

A working group presentation unravelled public held myths related to nutrition and HIV/AIDS. Good nutrition and micronutrient supplementation can largely cure malnutrition, but cannot cure clinical HIV/AIDS. Untreated HIV/AIDS exacerbates malnutrition, and a well-balanced sound nutrition can only prevent and cure malnutrition, and delay the

inevitable. Underlying disease needs to be treated. Thus a drug cum nutrition approach needs to be promoted.

The risk of an influenza pandemic for which we have no medical remedy widely and promptly available, was addressed in a presented paper. During the working discussions it was contested whether an influenza pandemic is an emerging new threat to global security. Similarly other potential forms of bio-perils and bio-terrorism will have to be carefully monitored.

The tsunami disaster was discussed in three papers. It was argued that no single country can successfully take-on an early warning system of tsunamis and earthquakes. It was suggested that UN should take a leading role in setting up such systems, though the process of setting up early warming mechanisms should take into account traditional national security interests.

The impact of the tsunami disaster and the post-tsunami reconstruction in Sri Lanka were addressed. Two examples of what was viewed as inappropriate tsunami restoration in Sri Lanka were mentioned -- rejection of rebuilding new housing on the seafront on stilts, and an announced 100 meter seafront safety zone that does not take height above main sea level into account.

Climate change and the Kyoto protocol

Climate change is a serious threat, but how to deal with it is contentious. There are tensions and emerging conflicts due to different views on climate change and particularly the economic impact of the Kyoto protocol for different nations. The Kyoto protocol is only a small step but causes significant problems.

The Kyoto protocol was negotiated based on experience from arms control treaties, which is not always best suited for tackling climate change, and may not give enough incentives to move in the right direction and fast enough. CO_2 emissions are not warheads. This point of view was contrasted by the point of view that not just the overall level of CO_2 reduction is important but also the rate of change. A positive aspect of the Kyoto protocol is that it can slow down the emissions, and hence buy time for finding better solutions.

The role of CO_2 sequestration, and particularly that of wetlands (e.g. the Siberian Tundra), needs to be understood better. Energy issues in the context of climate change were discussed, in particular which role renewable and nuclear energy should/could play. Energy conservation is important too, as might be CO_2 capture and storage in connection with the continued use of fossil fuels. A proposal was made to hold a workshop on comparable advantages of different energy sources.

Science and values

Two contrasting views on the relations between science and values were identified. From one perspective values are seen to be culture specific, and hence no universal standard of ethical behaviour in science as such can be formulated. The opposite viewpoint was put forward that global moral imperatives do exist, such as: *Never shall we put an end to the human race* (cf. the Russell-Einstein Manifesto). Some participants called for promoting ethical codes of conduct.

There are also the emerging differences in perception and policy formulation in respect to new technologies, particularly food and agricultural biotechnology. Pugwash has undertaken studies in the fields analysing risks and benefits in the area of agricultural and food biotechnology. It may be useful to continue this careful analysis further, since there are both potential trade and political conflicts arising from different perceptions on the benefits of biotechnology including nano-biotechnology.

An iconoclastic critique of university science education was posed. One point of criticism was test-based learning that leads to students' memorising facts instead of thinking for themselves. To overcome this problem it would be helpful to review and revise pedagogic methodologies. Students also need time to reflect on what they are doing, and why they are doing it. Knowledge and values are interconnected.

A presented paper argued that we must follow certain values or principles if we are to prevent global threats and hence achieve a sustainable future. Values for sustainable living were identified, and categorised as the minimum common denominator for all cultures and even all individuals. The highest possible degree of - but not total - diversity of values is assumed. In decision-making of today pragmatic strategies are often chosen neglecting value-based approaches that hold certain values as un-negotiable. It was suggested to promote more actually a culture of peace, and harmony with nature.

Towards sustainable development

A possible reconciliation strategy to solve regional conflicts was identified, based on the idea that conflicting parties must realise that the future of the children, affected by conflicts, is stolen from them, and that the adults have failed to solve the conflicts. The seeds of peace must be sowed in the minds of children by paediatricians, nurses, schoolteachers and others working with children affected by conflicts.

Integrated Costal Zone Management (ICZM) was presented as a way for governments to manage ecological problems in the coastal areas. It acknowledges the interrelationships among - and the potential conflicts between - coastal and ocean uses and users as well as the effects on the environment. ICZM is designed to overcome fragmentation inherent in sector-split management, and is a holistic management technique that requires data on many different phenomena. It was suggested that the trans-disciplinary way of thinking embedded in the ICZM and other fields be studied further.

A project aimed at writing a book series on *Science and Civilisation in Sri Lanka* on the lines of Joseph Needham's famous *Science and civilisation in China* was presented. During discussions it was emphasized that *Do How* does not automatically follow from *Know How*, as technology needs adaptation to the local context.

Two papers addressed urban issues. The first one focused on environmental assessment tools and development of urban infrastructure. The second paper analysed key features from the draft World Charter on "the Right to the City" presented by various NGOs at the World Social Forum, 2005.

Conclusion

One of the purposes of working group 6 was to identify potential new topics for further elaboration by Pugwash. The group's discussions centred round non-military security threats. Working group participants suggested that Pugwash could pursue non-military threats to security like bio-perils (e.g. the HIV/AIDS pandemic and potential threats of bioterrorism), climate change and water issues, hunger and poverty, environmental security, and distribution of economic and natural resources.

Time was not available to thoroughly discuss these threats in details or to prioritise them. The important message from this working group is that Pugwash should remain open to new emerging threats and, therefore, to new agenda items selected in terms of the prime criteria mentioned in the beginning of this report.

It was proposed that Pugwash starts a process of internal reflection on how to deal with the challenges of these non-military threats. Pugwash Netherlands is prepared to host a first workshop on this topic to outline those new challenges to human security and sustainable development. The proposed Dutch workshop could be very useful in that regard.

During the elaboration of topics in these workshops it is essential to reflect on the underlying values, political ramifications and ethical aspects, as these have gradually become an integral part of any responsible scientific approach towards contemporary global/regional/national issues. Similarly, it was suggested that education, dissemination and public advocacy be integral parts of any approach adopted.

The proposed Pugwash workshop series could develop regional overlays of the various potential sources of conflict. These areas of potential environmental insecurity can be superimposed on Pugwash analyses of political and nuclear scenarios to develop composite maps that characterize regions of the world that are particularly at risk from multiple forms of security challenges.