Human security encompasses a host of issues that together form the basis for guaranteeing each person safety at the societal, community and individual levels. Millions of people worldwide are affected by some form of human insecurity. Infectious and parasitic diseases annually kill 17 million people; 25 million people are internally-displaced persons, including 5 million in Sudan alone; 1 million people in Zambia’s population of 11 million are HIV-positive; and only 2.3% of the fresh water on Earth is potable. The primary elements of economic, food, health, environment, personal, community and political security all comprise the broader understanding of human security. This definition shifts the focus away from a state-centric and military-strategic emphasis on security to an interdisciplinary and people-centric approach that embraces notions like empowerment and participation.

The working group discussed various aspects of human security, focusing on the specific areas where Pugwash’s diverse group of experts can make a difference. Drawing on a recent workshop held in the Netherlands, the notion of security was seen as broadening in scope and deepening to include more levels of society, while involving more stakeholders in the process. The human security approach has been promoted by a number of trend-setting commissions: The International Commission on Intervention and State Sovereignty, which promoted the “responsibility to protect;” the Ogata-Sen Committee; and the recent Human Security Commission. Three key elements will help us understand and expand the way that human security can be operationalized: agency, or including the victims and people at risk in the process; discourse, which provides the language for promoting a human security agenda; and governance, or designing more comprehensive forms of governance to deal with the issues at stake.

Science and ethics

Guidance with an ethical compass is integral to our work. Science in the 21st century will present diverse new threats as well as ethical dilemmas for scientists. Nanotechnology is a prime
example of the conflict that science will face: although innovations offer us more powerful ways to live, travel, and communicate, detractors fear that the limited scope of knowledge of this field could cause new problems for humanity. Scientists historically have been wary of confronting uncertainties because of fear of public backlash. By extending science’s outreach and increasing the public’s participation in debates about the role of science and technology in society, scientists can develop effective ways to address these ethical issues. Pugwash can use its broad approach to bridge gaps to assess the societal and ethical consequences of research, and also ways to cooperate with existing ethics in science programs at UNESCO and ICSU.

Incorporating the study of ethical dilemmas into university curricula is an effective way to influence scientists in their formative years. In addition, publication of Pugwash’s Dorothy Hodgkin Memorial Lecture series would offer young scientists a compass on social responsibility in science. Speaking up on the protection of whistleblowers is a specific way that Pugwash can help promote science and ethics in the wider society. Pugwash should also promote equal access to new technologies for all sectors of society so that socially responsible outcomes are available to everyone.

**Health threats, including HIV/AIDS and nutrition**

Human security is greatly shaken by the global phenomenon of HIV/AIDS. Following the international onset of the virus, we are now seeing the effects of HIV/AIDS on political, social and economic spheres in “first wave” countries in Africa; soon we will see the cumulative impact on these societies from the death toll on young people, child-rearing by grandparents, and a lost labor force.

Other epidemic diseases diminish human security globally, particularly malnutrition and diarrhea, which often contribute to the spread of other viruses. Malnutrition compromises drug therapies for HIV, raises tuberculosis’s infection rate, and reduces the survival rate from malaria. Diarrhea kills more children worldwide than malaria, HIV/AIDS, and tuberculosis combined. However, these other epidemic diseases are not properly addressed since they affect primarily the developing world and do not have a recognizable champion for their causes.

The human security impact of these diseases, particularly HIV/AIDS, cannot be understated. Police and military personnel are infected, which diminishes their forces and inhibits cooperative security efforts when HIV-positive personnel cannot work in other countries. Medical costs and lost productivity also contribute to a significant threat to economic security. Social security is compromised when affected individuals are cast out of their communities, realize discrimination, and leave behind young children who may be infected with HIV/AIDS themselves. Securitization, which elevates issues like HIV/AIDS into security threats, raises awareness among government leaders and the public, and also encourages civil society to take a role in defining the problem and finding effective solutions. Securitization’s greater emphasis on human security threats can better integrate civil society into the security sector, but risks providing a government justification for their claim on national resources.

While education has helped reduce the spread of HIV somewhat, the “ABCs” promoted in Africa—Abstinence, Be faithful, Condomize—are not working to stem the
epidemic. Governments and religious leaders are also undermining education efforts. Pugwash’s diverse base of experts could help develop a new, effective language for HIV/AIDS education. In addition, gender inequalities must be addressed to combat, for example, the “machismo” mindset among promiscuous men.

Technological innovations offer us ways to discover correlations between health problems and economic, social, environmental, and other factors. Geographic Information Systems (GIS) can map disease outbreaks and to analyze their relationship to the other geographical factors around them to identify new threats and facilitate management of the problem. While correlation of this data does not necessarily determine causality, this system offers a way to discover other potentially related factors that should be investigated further. Pugwash’s broad approach would help improve the identification of health problems and offer new research areas to correlate to health issues. However, this innovation requires weighing the risks and benefits—particularly in relation to privacy concerns—of collecting personal data for sharing in a collective database.

Other considerations including water resources, agri-biotech and food security

Water is already a source of international conflicts and is the greatest resource at risk in the Middle East region. Inequity in water use worldwide was highlighted as a key source of tensions, and the need to strike a balance between different countries’ approach to water use and conservation was noted. Although future conflicts loom, including unarmed disputes or clashes at the subnational level, water may be used effectively as a means of cooperation as well. Regional approaches to improve water security are needed, as well as comprehensive national efforts to harvest rainwater, develop desalination programs, and recycle water.

Supply, access, and demand all are issues that need to be solved for food security. Genetically-modified foods are not uniformly accepted by states, which causes problems for effective trade and food aid delivery around the world. Pugwash can make a useful contribution by making connections between food security and conflict, for example by emphasizing that food should not be used for political coercion. However, in order to effectively raise awareness and identify emerging threats, more expertise within Pugwash is required as food security is a relatively new issue for the organization. Promoting access to the necessary technologies for developing countries can help them mitigate food, health and water security risks.

Conclusion

Pugwash has a successful history of making a significant contribution on human security matters. A series of workshops organized by the South Africa chapter of Pugwash has broadened understanding of HIV/AIDS across nationalities and disciplines. The group’s work assisted a research investigation that showed no correlation between low selenium intake and the occurrence of HIV/AIDS. In addition, the series has spurred a new project, now underway, to address gender issues endemic to the spread of HIV/AIDS. Another successful Pugwash series on intervention and sovereignty addressed the responsibility of governments and the international community to protect the human rights of vulnerable populations. Pugwash should continue the study group on human security to incorporate the previous series’ themes of
intervention and sovereignty in light of the 2005 United Nations doctrine on the “responsibility to protect.”

Human security issues require Pugwash’s continued attention to identify emerging threats and potential solutions in these areas outside of the traditional security sphere. While this year the group focused on health, food and water issues, many other human security concerns can be addressed using Pugwash’s broad and interdisciplinary approach. For future Pugwash conferences, we recommend that this working group’s title and mission both reflect the key human security issues at play so that the group’s work may be focused on useful, interdisciplinary dialogue. The group’s call for papers should include topical issues and policy developments in human security, and the agenda should be shaped well in advance so that contributions from Pugwash members may be interlinked more easily. In this way, Pugwash’s work will continue to demonstrate our commitment to address all aspects of global security.