

The Pugwash movement and an agenda for human security

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*Hunger allows no choice
To the citizen or the police.
We must love one another or die
Defenceless under the night
Our world in stupor lies;
Yet, dotted everywhere,
Ironic points of light
Flash out wherever the Just
Exchange their messages;
May I, composed like them
of Eros and of dust,
Beleaguered by the same
Negation and despair,
Show an affirming flame*
W. H. Auden

Today the world is facing a trilemma, or a triple dilemma. Over three billion people, struggling to survive with an income of less than \$2 per capita per day, are demanding peace and equitable economic development. Several countries in Africa are, for instance, still in the midst of serious famines. As the Roman philosopher Seneca said 2,000 years ago, '[a] hungry person listens neither to reason nor religion, nor is bent by any prayer.'

Thus, one aspect of the trilemma is a global craving for peace and development, equitable in social and gender terms. Another side, however, is that there is growing violence in the human heart. Terms like 'ethnic cleansing' and 'biological and biochemical terrorism' are being widely used in the media; the revival of small pox is becoming a possibility; the nuclear peril has again raised its head; there are over 27,000 nuclear weapons in the arsenals of major and minor nuclear powers; the availability of large quantities of highly enriched uranium increases

opportunities for nuclear adventurism. We are living in an age of increased nuclear and bio-perils.

The third side of the trilemma is the spectacular progress of science and technology, resulting in and increasing technological and economic divide between industrialised and developing countries. If access to technology has been a major cause of economic inequity in the past, the challenge now lies in enlisting technology as an ally in the movement for social and gender equity.

In 1994, the report of the International Commission on Peace and Food which I chaired was released at UNESCO by its then Director General, Federico Mayor. Unfortunately, the Peace Dividend we had then anticipated as a result of the end of the cold war and the break-up of the Berlin Wall has yet to materialise. In fact, the expenditure on military hardware and internal security is increasing day by day, particularly after the tragic events of 9/11.

Contemporary developmental challenges, particularly those relating to poverty, gender injustice and environmental degradation, are indeed formidable. Adding to these is the HIV/AIDS-tuberculosis pandemic. However, the remarkable advances now taking place in information and communication technology, space technology, biotechnology, agricultural and medical sciences, and renewable energy and clean energy technologies provide hope for a better common present and future. Genomics, proteomics, internet, space and solar technologies and nanotechnology are opening up uncommon opportunities for converting the goals of food, health, literacy and work for all into reality. It is nevertheless clear that such uncommon opportunities can be realised only if the technological push is matched by ethical and ecological pulls. This is essential for working towards a world where both unsustainable life styles and unacceptable poverty become features of the past.

Also, there is a growing mismatch between the rate of progress in science, particularly in the area of molecular biology and genetic engineering, and the public understanding of its short and long term implications. There is an urgent need for institutional structures which can inspire public confidence that the risks and benefits are being measured in an objective and transparent manner. Scientists and Technologists have a particularly vital role to play in launching an ethical revolution. The Pugwash movement, which I now have the privilege to lead, is an expression of the social and moral duty of scientists to promote the beneficial applications of their work and prevent their misuse, to anticipate and evaluate the possible unintended consequences of scientific and technological development, and to promote debate and reflection of the ethical obligations of scientists in taking responsibility for their work.

It is appropriate to quote in this context what Albert Einstein once said,

Concern for man himself and his fate must always form the chief interest of all technical endeavours in order that the creation of our minds shall be a blessing and not a curse.

Shall we renounce war and violence as a method of settling disputes, or shall we put an end to the human civilization? This is the question facing us today, more than fifty years after the Russell-Einstein Manifesto. We are witnessing growing intolerance towards diversity and pluralism in human societies, as for example in terms of religion, ethnicity, political belief, colour, culture, gender and language. In contrast, the goal of sustainable development, accepted in various UN Conferences including the recently held World Summit on Sustainable Development at Johannesburg, can be realised only if there is harmony between humankind

and nature. It is obvious that we cannot be non-violent to nature if we continue to be violent to each other.

We now have a global Convention on Biological Diversity to help in the conservation and sustainable and equitable use of biodiversity. We need urgently a similar Convention on Human Diversity. While a Convention alone will not be able to halt the growing intolerance of diversity, particularly with reference to religion and political belief, it will help to foster a mind set which regards diversity as a blessing and not a curse. Both biodiversity and human diversity are essential for a sustainable future.

It is also necessary to reflect on methods for giving meaning and content to the ethical obligations of scientists in relation to society. The World Conference on Science held at Budapest in 1999 called for a new social contract between scientists and society. With a rapidly expanding Intellectual Property Rights (IPR) atmosphere in scientific laboratories, the products of scientific inventions may become increasingly exclusive, with access being limited only to those who can afford to pay. The rich-poor divide will then increase, since orphans will remain orphans with reference to scientific attention. How can we develop a knowledge management system which will ensure that inventions and innovations of importance to human health, food, livelihood and ecological security benefit every child, woman and man? This is now being discussed in the forum of the World Trade Organisation, particularly with reference to drugs that form part of the treatments of HIV/AIDS. In this sense, I propose that UNESCO may explore the possibility of establishing an International Patents Bank for Peace and Human Wellbeing. Scientists and technologists from all parts of the world should be encouraged to assign their patents to such a Bank, so that the fruits of scientific discoveries become available for public good. Such a Patents Bank for Peace and Human Wellbeing would stimulate scientists to consider themselves as trustees of their intellectual property, sharing their inventions with the poor in whose lives they may make a significant difference for the better.

The French mathematician, Marquis de Condorcet – a contemporary of Thomas Malthus – said over two centuries ago that human population will stabilise itself only if children are born for happiness and not just existence. The Government of Bhutan has taken the lead in developing a Gross National Happiness Index, based on the economics of human dignity, love of art and culture and commitment to spiritual values. Making all well to do members of the human family regard themselves as trustees of their financial and intellectual property will be essential for fostering a human happiness movement. We already have many philanthropic organisations for harnessing financial resources. The organisation, under UN auspices, of an International Patents Bank for Peace and Human Wellbeing will help scientists and technologists to practice what the great Indian spiritual and intellectual leader Swami Vivekananda advocated as the true pathway to human fulfilment:

In this life, give everything you can – give money, give food, give love or anything else you can - but do not seek barter

In the ultimate analysis, peace and security are vital for global sustainability. Lasting peace and security can be achieved only if the principles of equity (gender and social) and ethics get integrated into the global developmental agenda. It would be useful to recall what Bertrand Russel once said, ‘wars do not determine what is right-only what is left’.

The first and foremost goal of the Pugwash movement is to rid the world of the nuclear peril. It is unfortunate that sixty years after Hiroshima and Nagasaki, humankind has not yet abandoned the concept of nuclear deterrence. All great struggles in the world – whether they are to obtain independence from colonial rule or the ending of apartheid – have been achieved only through the pathway of non-violence. History teaches us that wars breed wars and that lasting peace will be possible only if violence as a method of resolving conflicts is banished from our minds.

When I assumed the position of President of the Pugwash Conferences on Science and World Affairs four years ago, I was optimistic that the year 2005 would be a watershed year in realising the goal of a nuclear peril free world. Unfortunately, matters are getting worse and not better. This is especially visible through the failure of the negotiations on the Non-Proliferation Treaty. I hope that the Pugwash movement will help to instil a sense of sanity and urgency, particularly among the nuclear power states, about the urgent need for heeding to the advice of poet Rabindranath Tagore,

With your mind intent, cross this sea of chaos,
And sail to that shore of new creation

Let the political leaders of the world have the wisdom to concentrate on achieving the UN Millennium Development Goals in the area of hunger and poverty and thereby reach the shore of new creation. The Pugwash movement in turn should promote a global coalition of institutions and individuals who, as pointed out by the poet W. H. Auden, show an affirming flame in the midst of the sea of despair surrounding us.
