

Reflections on the Public Forum on Food and Population—How Many Can We Feed?

By Helmut Burkhardt, Mustafa Koç, and Analyn Yu

The Food and Population Forum, organized by the Global Issues Project of Science for Peace, and the Canadian Pugwash Group, was held on 20 Nov. 2009 at the Koffler Institute, University of Toronto.

Helmut Burkhardt opened the forum with introductions and acknowledgements to the committee responsible for its organization as well as to the student volunteers and videographer for the event. Adele Buckley welcomed the crowd on behalf of the Canadian Pugwash Group (CPG) and provided a short summary of its activities, ranging from work on nuclear disarmament to interconnected global issues that, unaddressed, could escalate into conflicts between states. Judy Deutsch, the President of Science for Peace (SfP), described the breadth of the scientists in SfP and the work done by its members, reiterating the need to address various global crises in all their interconnecting complexity. Derek Paul took a few moments to remember SfP's founding president, Eric Fawcett, a physicist with an open mind who had provided an avenue for new ideas to be heard. It seems that people in attendance entered into the discussions with this spirit. The forum was moderated by Mustafa Koç, a sociology professor from the Centre for Studies in Food Security at Ryerson University in Toronto.

Brewster Kneen, a farmer, activist, and author of several books on the food system, was the first panelist. His message was that small farmers around the globe at present feed a large fraction of the world's population in a sustainable way, and that industrial scale agriculture, with its dependence on oil, artificial fertilizers, and antibiotics is neither sustainable nor efficient. For example, in the food system of developed nations approximately 4 kcal of energy is invested to produce 1 kcal of food, whereas this ratio is 1:1 in the global South. He also criticized the structures of the food system, the capitalist market, which does not care about justice and food distribution. He questioned the notion of "we" in the forum's title, suggesting that if it refers to the rich western countries with organized, mechanized agriculture, then "we" are guilty of the destruction of livelihoods in the global South. He did not, however, explore other visions of "we" as the collective consciousness of world citizenry weary of seeing a division of the world into us and them, who seek, instead, the collective good of all.

Susan McDaniel, Director of the Prentice Institute for Global Population and Economy at the University of Lethbridge in Alberta, the second panelist, covered the population issue. As a demographer, she argued that the relationship between food and population is neither simple nor linear, but is complicated by related issues such as inequality of distribution, gender, age, and consumption. She stated that in a world where 80% of the population consumes only 20% of Earth's resources, the current ecological crisis is not due to the number of people, but mainly due

to the overconsumption of the rich; George Monbiot and the British demographer David Satterthwaite hold a similar position. The present inequalities of consumption are of course unfair, and there is no easy way to global justice. The poor are getting poorer, in spite of the UN Millennium Development Goals of abolishing poverty.

Robert Hoffman, of WhatIf?Technologies in Ottawa and a member of the Canadian Club of Rome, the third panelist, showed computer simulations of possible futures with a variety of food and population scenarios. He presented a Limits to Growth study and compared, via systems modeling, the “business-as-usual” as opposed to the “green” scenario. With a “business-as-usual” scenario, he told us population will grow to 12 billion by 2080 before leveling off, whereas with the “green” scenario, he reduced the fertility rate from 2.1 replacement rate (a very modest “business-as-usual” parameter) down to 1.5 so that population levels off at 9 billion. Unfortunately, neither of these scenarios could prevent the predicted collapse of old growth forests by 2040. Neither scenario could increase the availability of energy to meet the demands for a higher standard of living. He left us with the conclusion that the dynamics of population reduction is out of sync with the timing of the onset of food shortages, energy crises, and forestry collapse, that is, population (reduction) alone cannot solve these issues. He concluded that the crisis of food needs to be resolved in the context of energy, and of agricultural and forestry practices. Moreover, the use of land-based biomass from forestry and agriculture bites into the capacity to feed people. Lastly, he made clear the urgent need for a rapid transition to a low carbon or zero carbon economy and for a carbon positive one within the next 50 years, to keep temperature increase within the 2⁰C margin. Hoffman stressed that no single intervention within these systems will be effective and suggested immediate multiple interventions.

The forum attracted and retained an enthusiastic audience until the end of the question period on a Friday evening. To judge by the full auditorium and the lively discussion following the panel, the event was a resounding success. The Video report is now available on Youtube at: <http://www.youtube.com/Glucklichcarly#p/u> .