

In search of sustainability

Nick J Towle

The ultimate consequence of failing to live sustainably is that we push our own species to extinction

“IN SEARCH OF SUSTAINABILITY” was predominantly an Internet conference held over 9 months. Each month was dedicated to a particular theme, and a keynote paper and several related discussion papers formed the basis for an Internet debate on each theme (www.isosconference.org.au). The nine themes were water, human health and wellbeing, land use and natural ecosystems, energy, equity and peace, economic systems, climate, labour force and work, and transportation and urban design.

The Internet conference culminated in a one-day face-to-face meeting at the Shine Dome in Canberra on 14 November 2003, which was attended by 190 delegates from around Australia. Twenty-four eminent Australian scientists and researchers presented papers summarising the nine core themes, with an emphasis on defining a path towards sustainability.

I attended as a self-funded delegate, motivated by my passion and engagement in a spectrum of environmental issues. In this report, I have chosen to concentrate on the themes of greatest relevance to health and sustainability, and have given preference to contributions from the medical profession. Doctors, because of their credibility in public debate and their knowledge of the devastating health effects of environmental degradation and pollution, have an important role to play in community discussion about sustainability. Several of the speakers were members of the newly established Doctors for the Environment (www.dea.org.au), which has been established to provide an educational role for colleagues and a forum for the profession to add its voice to the sustainability debate.

The term “sustainability” was defined very broadly in the opening session as the capacity of human systems to provide for the full range of human concerns over the long term.

Human health and wellbeing

Tony McMichael (Director, National Centre for Epidemiology and Population Health, The Australian National University [ANU], Canberra) proposed that human health be embraced as a key indicator for sustainability, emphasising that current measures of national “wellbeing”, such as gross national product, do not correlate with a population’s health or wellbeing. He stated that gains in longevity and population numbers have come at the cost of depleting the world’s natural capital and degrading the ecosystems on which our survival ultimately depends. He offered several examples of how the impact of human activity on our biosphere is having

increasingly detrimental effects on human health: damage to the stratospheric ozone layer, widespread degradation of productive land, the depletion of fresh water supplies, and overfishing and exhaustion of many of the ocean’s fish stocks.

Modelling of human-induced global climate change indicates that, at present, 45% of the world’s population are exposed to the *Anopheles* mosquito, and at risk of contracting malaria. A rise in global temperature of merely 3°C would lead to an expansion of the range of the *Anopheles* mosquito, increasing the at-risk population world-wide to 60%. Other vector-borne diseases, such as Ross River virus, could be similarly affected.

Tord Kjellstrom (National Centre for Epidemiology and Population Health, ANU) stated that “sustainability is the health promotion challenge of the 21st century”, adding that many of the changes needed at an individual level to improve our personal health are synonymous with the changes that will lead to a more sustainable way of living. Examples included taking the opportunity to walk or cycle in preference to burning fossil fuels in personal motor vehicles, and eating fresh local produce in preference to imported processed foods. He concluded that all members of society have a role to play in making “sustainability-based behaviours” the social norm — just as non-smoking has become the norm.

Colin Butler (National Centre for Epidemiology and Population Health, ANU) pointed out that many factors may disrupt health, including environmental influences (floods, earthquakes, and climate change) and human activities (war and terrorism). “... denial of our increasingly unsustainable lifestyles will simply deepen the crisis we are in.” The goal to live more sustainably needs to become the primary objective of human endeavour.

Transportation and urban design

Chris Johnson (NSW Government Architect) alluded to studies in the UK comparing “battery-raised kids” (those driven to school in a four-wheel-drive and bundled through the gates) with “free-range kids”, who were allowed to walk or cycle to school. The findings showed that free-range kids had better psychological development and school performance.

He explained the concept of the “ecological footprint”,¹ a scientific approximation of the area of land that each individual requires to meet his or her material needs and assimilate waste. “While this is an increasingly useful tool to assess the impact of our consumption patterns, we need to incorporate the element of liveability when we look at how we might design the cities of the future.” A proposed model of future city design included multiple-storey apartments

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with rooftop gardens and urban greenbelts. This greater density of living would allow more land for agriculture and biodiversity conservation.

Economic systems

Richard Denniss (The Australia Institute, Canberra) argued that “economic growth is not only the target of economic policy and treasury but has become the priority for all areas of government policy”. But gross domestic product (GDP), as a measure of economic growth, does not correlate with a healthy, sustainable society. Paradoxically, loss of human life through trauma or natural disaster contributes a gain in GDP, whereas if members of society were to choose more leisure time and to engage in healthy activity this would be reflected as a downturn in GDP.

Denniss urged the adoption of measures such as the genuine progress indicator² as an alternative to GDP, and proposed that sustainability, encompassing human wellbeing and environmental integrity, should be mandated in all government policy and decision making.

Equity and peace

Sue Wareham (President of the Medical Association for the Prevention of War [Australia]) emphasised the waste of resources in war and preparations for war. As the sophistication and cost of weaponry increase, there is an increasing potential for even wealthy nations to overstep their capacity to support their own people. Expenditure on basic services, including health and education, are often the hidden casualties of war.

The changing nature of weaponry is also having a devastating impact on human health. The contamination of both urban and rural environments in Iraq by the use of depleted uranium munitions will leave a legacy for the health system that will last long after the US-led occupation.

The debate

The day concluded with a panel discussion. General agreement was reached that the Australian population, and most populations of the “developed” world, are no longer living within the Earth’s ecological limits. The ultimate consequence of failing to live sustainably is that we push our own species to extinction. While this seems fertile ground for pessimism, the core focus of the debate was how we might transform this situation.

Some promoted technological and market-based solutions, working essentially within the existing frameworks established by industry and government. This generated considerable controversy, as others were seeking a more radical departure from our current societal norms, with the view that we already have much of the required knowledge and technology to bring about effective change. Here the emphasis was on generating cultural change through

empowering individuals to take personal action, complemented by the development of positive role models.

Jenny Goldie (National Director of Sustainable Population Australia) expressed concern that the issue of population size had been neglected throughout the conference. To highlight the population issue, she pointed out that, on the basis of our current consumption patterns, our population would need to be halved if we are to live within the ecological limits of our country. Our current consumption patterns are sustained by exploiting the resources of other countries.

Bryan Furnass, a retired physician, gave his perspective on the issues surrounding sustainability: “The problem lies in the three P’s: population, pollution and poverty; the solution lies in three E’s: ecology, education and ethics”.

In his conference summary, Ian Lowe (Griffith University, Queensland) suggested that further debate and action towards sustainability would not occur until more people understood the true meaning of sustainability. “If you look at the Earth from space, where’s the economy? The reality is that you see a ball of blue and green surrounded by a thin atmosphere of gases; you see the environment that sustains us. If you look closely you can make out borders of continents, some landmarks which roughly define country boundaries; this is the society that we have established, and then you have the economy which is a creation of our society.” Any human endeavour that leads to a compromise of ecosystem integrity will not be sustainable in the long term.

Outcomes

The context of the debate and recommendations from the conference were summarised in a communiqué.³ In addition, the conference organisers are producing a book (expected to be available this year), with contributions from 14 of the conference speakers, which will reflect the breadth, urgency and relevance to national and international human health of the sustainability debate.

Acknowledgements

The conference was hosted by three non-profit organisations: Australia 21 (www.australia21.org.au/), Nature and Society Forum (www.natsoc.org.au/), and Sustainable Population Australia (www.population.org.au/).

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(Received 5 Feb 2004, accepted 19 Apr 2004)

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