

## 12 FRAGEN AN ... 12 QUESTIONS TO ...

... WILLIAM C. CLARK

### 1. From your point of view, what are the most pressing environmental problems?

Multiple, cumulative stresses converging on and interacting in particular places. No place in the world experiences the single environmental stresses – like climate change – to which we academics devote most of our attention. Instead, real world places experience increasingly intense impacts from multiple stresses that interact with one another in ways we neither understand nor – due to their multiple causation – are able to manage.

### 2. When looking at potential improvements in our environment, what gives you hope?

The City of Graz. It used to be dirty, polluted, congested and raw. Today, it is as delightful a place as any I know on earth: green, clean, pedestrian friendly, and civilized. And it got there not via market forces or political revolutions but through inspired, sustained leadership and a citizenry that cared.

### 3. Is there a particular environmental policy reform you admire the most?

The slow rediscovery that under a wide range of circumstances social groups can responsibly manage their common pool resources without falling victim to a “tragedy of the commons”.

This rejection of the centrally managed, large scale policies for natural resource management that have proven so disastrous is the fruit of a largely unsung group of scientists and practitioners who have helped us see and appreciate the rich variety of ways that experienced resource users have managed their common pool resources. It has led to the emergence not of panaceas, but of a pragmatic and sometimes effective array of approaches promoted under labels such as “co-management”, “community forestry” and “participatory governance”.

### 4. Which trend in environmental policy and politics do you consider an aberration?

US Government attitudes toward the global climate/energy nexus. Nero is the best/worst analogy that I can think of, and the

more I think on it, the more it seems outrageously apt. Fortunately, a widening cross-section of Americans who live in the real world are reaching out to form alliances with one another and the rest of the world to grapple seriously with these issues. As was the case 20 years ago with the Reagan administration’s rejection of reality on acid rain, the current administration will pass on, and a more enlightened policy will surely emerge in its wake.

### 5. Imagine you would be Global Minister of the Environment for one day: What would you do?

The time frame of just one day makes this question silly. It invites “sound bite” or “theater” answers, of which we have far too many. The big changes we need require sustained efforts at serious agenda- and coalition-building, not sound bites.

### 6. Why environmental research?

Because we don’t know how to achieve sustainable development. And without more relevant and reliable knowledge about human-environment interactions, all the political treaties and market incentives and public-private partnerships in the world are not going to get us there.

### 7. What field of research in environmental sciences – besides the one you are working in – do you consider most exciting?

“Sustainability science” has emerged over the last decade as a nascent field encompassing both use-inspired, interdisciplinary research on the fundamental nature of human-environment interactions, and solution-oriented research and development on the practical place-based and sectoral challenges of sustainability, such as water, energy, health, habitation, agriculture and ecosystem services. To have the luck to be working in sustainability science today is to experience the exhilaration I imagine must have enveloped a humanist in Vienna at the end of the 19<sup>th</sup> century, or a theoretical physicist in Göttingen in the late 1920s.

### 8. Can you name any person or event that has had a particular influence on your commitment to environmental issues?

Gerald Durrell, an Englishman whose wise and hilarious writings carried me along his own track from a childhood collector of animals to an adult protector of them. It’s in large part his fault that I have a PhD in ecology. And Stuart Udall who, on stepping down from his post as Secretary of the Interior in the Kennedy and Johnson administrations, came to spend a year as visiting professor of practice at Yale, where I was an undergraduate. The small seminar he led on environmental policy was for me a revelation on the central role of dedicated, professional civil servants in turning academic ideas into practical action for the environment. It’s in large part his fault that I have ended up as the only former ecologist at Harvard’s Kennedy School of Government.

### 9. How do you explain to kids why you are doing what you are doing?

I say I’m trying to save the world. They think that’s a pretty sensible thing to be doing.

### 10. What knowledge about the environment would you like to pass on to young people?

The knowledge that comes from being able to wallow in Darwin's "entangled bank" – walking the woods, wading a tide pool, grubbing under stones in a stream, gazing at the migrations of birds, bugs and beasts ... Too many of the places where I did this as a young person are gone now, paved, polluted, or civilized beyond recognition. Access to all the web pages and data sets and documentaries in the world are nothing to the joy of purposefully muddy boots when it comes to learning about the environment.

### 11. What are you reading at the moment?

*Humboldt's Cosmos* by Gerard Helferich, an account of Alexander von Humboldt's journey to Latin America from 1799 to 1804.

### 12. Which question – apart from the ones we raised – is the most important one?

In the words of my colleague Bob Kates, "What is, and ought to be, the human use of the earth?"



**William C. Clark,**

Harvey Brooks Professor of International Science, Public Policy and Human Development at Harvard University Kennedy School of Government (KSG).

**Main research areas:** Interactions of environment, development and security concerns in international affairs, with special emphasis on the role of science and technology in shaping those interactions.

Born in 1948 in Greenwich, Connecticut, USA. 1971 BSc in ecology at Yale University. 1979 PhD at University of British Columbia. 1971 to 1980 Member Ecological Policy Group, University of British Columbia, Vancouver (CDN). 1981 to 1984 Research Scientist, Institute for Energy Analysis, Oak Ridge Associated Universities, Oak Ridge, TN (USA). 1973 to 1974, 1978 to 1979, 1984 to 1987 International Institute for Applied Systems Analysis, Laxenburg (A). Since 1987 Senior Research Associate, *Harvard University Program on Science, Technology and Public Policy*. 1989 Visiting Professor, European University Institute, Florence (I). Since 1992 Harvey Brooks Professor of International Science, Public Policy and Human Development, KSG. 1999 Visiting Scientist, Columbia University, NY (USA). 2002 Visiting Scholar, Potsdam Institute for Climate Impact Research, Potsdam (D). Since 2003 Director, *Sustainable Development Program*, KSG.

**Select memberships in committees and boards:** 1983 to 1990 and 1995 to 2001 National Research Council of the US National Academy of Sciences. 1988 to 1995 Social Science Research Council. 1990 to 1996 American Association for the Advancement of Science. Since 1997 Design Committee Chair, State of the Nation's Ecosystems Report. Since 2000 Scientific Committee Member, *International Human Dimensions Programme of Global Environmental Change*.

**Awards:** Since 2002 member, U.S. National Academy of Sciences | 2002 Humboldt Prize (Germany) | 2002 Kennedy School's Carballo Award for excellence in teaching (USA) | 1983 MacArthur Prize (USA).

**Select publications:** Co-author of *Adaptive Environmental Assessment and Management* (Wiley, 1978) and *Redesigning Rural Development* (Hopkins, 1982) | editor of the *Carbon Dioxide Review* (Oxford, 1982) | co-editor of *Sustainable Development of the Biosphere* (Cambridge, 1986), *The Earth as Transformed by Human Action* (Cambridge, 1990), *Learning to Manage Global Environmental Risks* (MIT, 2001), and *Global Environmental Assessments: Information and Influence* (MIT, 2006).

#### MORE INFORMATION:

[http://ksgfaculty.harvard.edu/William\\_Clark](http://ksgfaculty.harvard.edu/William_Clark)

#### WILLIAM C. CLARK

A short introduction to someone who has contributed so much to sustainability research has to be very selective. I have chosen to introduce Bill Clark by reflecting on some of his contributions over the past twenty years with which I am most familiar, knowing, however, that other colleagues and those that he has taught could well and justifiably choose other highlights.

Already in the 1980s, before "sustainable development" received public and political attention after the publication of the so-called *Brundtland Report*, Bill and colleagues at IASA published *Sustainable Development of the Biosphere* (1986) and pioneered interdisciplinary thinking in this area of research. At the same time, Bill's interests in the linking of science and policy were signaled through the publication in 1985 of a co-authored paper entitled *The Critical Appraisal of Scientific Inquiries with Policy Implications*. This work raised questions that were the focus of attention of at least two subsequent large projects. At the beginning of the 1990s, Bill pulled together an international, interdisciplinary core team to begin what became known as the *Social Learning Project*. Many of us that embarked on that multi-year endeavour had no idea of how long it would take, or how much we ourselves would learn. After more than ten years under Bill's leadership, two published volumes demonstrated how societies had learned about and dealt with the environmental risks of climatic change, stratospheric ozone depletion and acid rain. The work that went into that project, however, unearthed more interesting questions and as a result, again under Bill's leadership, a five year project on *Global Environmental Assessment (GEA)* began, with the aim of better understanding assessment processes, which link science and policy.

### Bill has always been a step ahead.

As the GEA project progressed and our understanding of assessment processes indeed improved, the sustainability agenda was gathering steam. As a member of the US National Academy of Sciences Board on Sustainable Development, Bill co-chaired the study that became *Our Common Journey: A Transition Toward Sustainability*, and laid out the challenges along the way to a more sustainable world. Shortly after the publication of *Our Common Journey*, a small international meeting was held in Sweden, in which Bill and colleagues discussed the background and core questions of "sustainability science". This led to the formation of the international Initiative on Science and Technology for Sustainability (ISTS), which, under Bill's leadership, has provided a valuable forum for fostering sustainability science.

All of the above were carried out in parallel to his other activities, which ranged widely, and included other major scientific projects, participation in advisory boards, editing the magazine *Environment*, a serious commitment to fostering the next generation through undergraduate teaching, graduate supervision, and career-mentoring. The projects I highlighted show that Bill has always been a step ahead. His responses to the questions show his commitment to improving knowledge about human-environment systems and this commitment has continuously pushed him and thus his colleagues and students, to grapple with what he has referred to as messy problems. Even over the past few years, that, as Bill has noted, have not been easy for those trying to make progress on the sustainability science agenda, his commitment has remained strong and we should look forward to seeing where his ideas will lead us in coming years.

Dr. Jill Jäger, Sustainable Europe Research Institute, Vienna.