Introduction

INTRODUCTION

My research and consulting in 30 countries on three continents over a 55-year period have convinced me that future generations throughout the world can expect a continuing decline in living standards due to existing global threats. I am a social and cultural anthropologist, unlike the large majority of other authors and scholars who have written on global topics. They tend to be biologists, development practitioners, journalists and other social scientists who have seldom done detailed micro-studies of human populations, including on how they impact upon their environment, on how national and international development policies and globalization impact upon them and on how affected individuals, households and communities respond to those impacts.

My research and consulting have concentrated on micro-studies, the results of which, I believe, have major policy implications for all high-, middle- and low-income countries. More specifically, my conclusions, experience and observations draw on systematic, longitudinal socio-economic research, during which I have worked for years in some of the world’s most impoverished communities.

The origins of this book date back to the second half of the 1990s, when I was preparing for the Society of Applied Anthropology’s 1999 Malinowski Award Lecture. My title was ‘The Emerging Global Crisis and Development Anthropology: Can We Have An Impact?’ The previous year I sent a questionnaire to 89 development anthropologists who had experience with the economic and social impacts of development on poor people and communities around the world. I asked my colleagues to list in order of importance three social and three environmental issues that posed ‘the most serious constraints to a sustainable future’ in the 21st century.¹

The 53 answers that I received from colleagues in 25 countries in the major regions of the world are reflected in my categories of threats. Among social issues, poverty was listed as the most serious (57 per cent of responses), followed by globalization (49 per cent), community unraveling (36 per cent), population pressure (23 per cent), increasing marginalization
Global threats, global futures

(21 per cent) and fundamentalism (19 per cent). Among environmental issues, misuse of natural resources was named as the most critical (74 per cent) and water scarcity and water pollution received the most emphasis. In this book I will be discussing all of these issues and the global threats they involve.

I am fascinated by how few experts anticipated the current global financial and economic crisis and by the inability of policy makers at national and international levels to cooperate in addressing that threat and other current threats such as global warming. Even a small number of such threats, including those I discuss, can cause living standards to decline not just in poor societies but in all societies and nations. I also discuss the type of transformations which might slow the rate and magnitude of decline. Whether or not quality of life can be maintained or even improved remains to be seen.

The difference between living standards and quality of life is analogous to the difference between growth and development. Definitions of living standards emphasize material comfort as measured by per capita income and Gross Domestic Product (GDP), which also are the usual indices for measuring growth. They largely ignore the fact that the world in which we live does not have unlimited natural resources, the overuse of which already is a global threat to humanity. Overemphasis on per capita income plays down two other major threats: poverty and the rising gap between rich and poor within and between countries. That said, readers should not conclude that growth is unimportant, for it is a key component of development and especially for the alleviation of global poverty.

Development, like quality of life, is a much broader concept, and includes a person’s access to a wider range of non-material attributes such as those available to people in every viable society and culture. Moreover, there is increasing evidence that such attributes as happiness and wellbeing are not dependent upon an ever-increasing living standard. As for a further distinction between growth and development, there is little evidence that sustainable high growth rates for all nations are possible. On the other hand, development, if it does not exceed the earth’s biophysical carrying capacity, can continue and can enrich human life.

I believe I provide a more realistic analysis of the implications of current trends than those presented in other books about our future. Some such books are written by what I call Global Boomers, such as global futurist Herman Kahn in the 1970s and economist Jeffrey Sachs more recently. Global Boomers foresee a better future with higher living standards lasting centuries. Other authors, including biologists Paul and Anne Ehrlich and geographer Jared Diamond, make a Wake-Up Call.
The Ehrlichs and Diamond expect a decline in living standards if present trends continue, but still anticipate, unlike myself, a change for the better if their proposals are implemented.

I combine a number of global threats to living standards in three unprioritized but interrelated categories. They are:

1. poverty and an increasing gap between rich and poor
2. cultural, economic, political and religious fundamentalism
3. global environmental degradation.

These global threats are analyzed in the first three chapters. The next three chapters focus on case studies of the United States, China and Zambia, to illustrate current situations in high-, middle- and low-income countries. The last chapter introduces the type of transformational changes that might reduce the rate and magnitude of decline in living standards while possibly improving quality of life.

My list of threats, of course, is far from comprehensive, but it is drawn from those associated with situations that I have researched. I also incorporate into the text threats associated with consumerism, population increase and urbanization. Already unsustainable levels of consumption pose a major global threat. Population increase is threatening because 90 per cent occurs in low-income countries, and 90 per cent of that growth ‘will be concentrated in the poorest of these countries.’ By 2007, 50 per cent of the world’s population had become urban dwellers, one-third of whom lived in slums, which are expected to increase in the years ahead since ‘more than 95 per cent of the population growth in the world’s poorest regions will occur in urban areas, with the result that cities will become the predominant sites of poverty in coming years.’

I intentionally do not include the threat of terrorism but rather emphasize two threats which are major contributory factors to terrorist movements. One is relative poverty, dealt with in Chapter 1. The other is fundamentalism, dealt with in Chapter 2. The serious threats of global climate change and nuclear war, briefly dealt with in Chapter 7, are better detailed by more knowledgeable experts.

As for transformational changes, one will emphasize the need for far more concentration on food production, manufacturing, enterprise development and entrepreneurial activities in rural areas and on improving the connections between those areas and cities and ports. A development strategy emphasizing rural areas has several advantages over the current emphasis in China, for example, on state industrial and urban growth. Not only is such a strategy more equitable in addressing rising gaps between rich and poor, but it is closer to the natural environment, and facilitates
social networking and community and cultural development. And, for those who look, the evidence is overwhelming that the world’s low-income majority wants such broadly defined development and will respond to opportunities and supportive government policies.

Another advantage of a global strategy that revisits rural development is that facilitating the emergence in rural areas of agricultural, manufacturing and other non-farm enterprise can match in late-developing countries increases in GDP and individual income associated with capital-intensive urban and industrial development. Such activities, moreover, are essential for economic and political survival in countries which have rural majorities. China’s annual growth rate of approximately 10 per cent over the last thirty years is based on two very different development policies, as analyzed in Chapter 5.

During the 1980s the Chinese government’s emphasis was primarily on realizing the potential of the rural majority through the household responsibility system and related economic reforms. After 1989, new leadership switched emphasis to state-controlled industrial and urban development. Both strategies have achieved similar growth rates. But personal income grew faster than GDP in the 1980s and slower than GDP in the 1990s, indicating the importance of a rural emphasis.5 There was also greater improvement in the majority’s social and cultural wellbeing in the 1980s as well as less environmental degradation, which can be generalized as a further advantage of increasing emphasis on a rural development strategy.

In this book I also stress several other transformational themes that I believe are necessary for trying to cope with global threats. Most involve changes in the values of individuals, societies and belief systems. Empowerment of women is one. Capacity building that starts with preschool education and ends with national service is another.

I wish to emphasize from the start that I am not a prophet of doom. The late economist Robert L. Heilbroner foresaw a link between economic decline and an authoritarian system of governance. I do not go that far; rather, I am an ‘optimistic pessimist.’ While I am convinced that downturn will occur, I agree with Donella Meadows and her colleagues of the Systems Dynamics Group at the Massachusetts Institute of Technology (MIT) that a future society that is ‘sustainable, functional and equitable’6 is possible – though at a lower standard of living worldwide.

Forecasting a global future is, of course, fraught with difficulty. Complexity is one problem. Another derives from our genetic heritage. Like our primate relative the chimpanzee, with whom we share 98 per cent of our genes, our concerns deal primarily with the present. This is true for both small-scale societies of foragers and high-income, developed
industrial societies. In the United States, voters and politicians alike focus on current events and the next election, while the business community is especially concerned with quarterly and annual returns. Cost-benefit analysis as used by development economists to evaluate different courses of action is more concerned with such current and important issues as poverty, infant mortality and malnutrition and disease, as opposed to more long-term but possibly more serious issues, such as global climate change.

WAKE-UP CALL AUTHORS AND GLOBAL BOOMERS

Skepticism as to the inevitability of decline is understandable because the writings of such influential doomsters as Malthus and the Ehrlichs have proved wrong. The problem is not so much that they cried ‘wolf’ but that they underestimated the complexities of the processes involved. Take food production: present concerns relate more to the ability of the low-income majority to buy food, and to inadequate infrastructure and institutional capacity to distribute food in times of need, than to food’s global availability. In the future, genetic engineering is likely to produce salt- and drought-tolerant food staples; nonetheless, food availability cannot be assumed indefinitely. Expected events such as increased consumption of grains and grain-fed meat in China’s growing middle class and the use of food staples for fuel alternatives, as in Brazil, will affect supplies and thus increase prices, reducing availability to the poor.

Also causing confusion about future trends are the opposing views of Wake-Up Call authors and Global Boomers. Both types make good sense but they talk past each other. Recent books by Wake-Up Call authors include Yale University environmentalist James Speth’s 2008 The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability. Worldwatch president Christopher Flavin writes in the preface to the Worldwatch Institute’s State of the World (2006) that ‘it is clear that the current western development model is not sustainable. We therefore face a choice: rethink almost everything, or risk a downward spiral of political competition and economic collapse.’

There are also numerous Wake-Up Call statements signed by scientists and distinguished citizens. Two examples are worth quoting. In the 1993 ‘World Scientists’ Warning to Humanity,’ 1680 scientists from 49 countries wrote that ‘[h]uman beings and the natural world are on a collision course.’ In a 2001 statement on ‘The Next Hundred Years,’ 120 Nobel Laureates in literature, medicine, natural science, politics, religion
and social science emphasized that ‘the only hope for the future lies in cooperative international action, legitimized by democracy.’

To date, such alarms have had little impact on national and international policies. One reason is the optimism of the Global Boomers, who believe that a combination of science, technology, democracy, free-market capitalism without regulation and globalization can significantly improve human livelihoods in the decades and centuries to come. Their initial stimulus was to refute the pessimism of such publications as Rachel Carson’s *Silent Spring* (1962) and the 1972 *Limits to Growth* by the Social Dynamics Group of MIT’s Sloan School of Management.

The main challenger to the MIT Group’s pessimistic assessment was Herman Kahn (1922–1983), whose interests shifted in the 1970s from nuclear strategies to global scenarios. He authored or co-authored a series of books arguing that a combination of technology and capitalism could lead not just to sustainable futures for hundreds of years but also to the colonization of space. Julian Simon (1932–1998), for many years a senior fellow at the Cato Institute, was another prominent Global Boomer. His 1981 book *The Ultimate Resource* held that an increasing population could use science and technology to develop substitutes for whatever natural resources might run out. In 1984, Simon joined forces with Kahn to edit *The Resourceful Earth: A Response to Global 2000.*

Other books by Global Boomers include Jeffrey Sachs’s 2005 *The End of Poverty: Economic Possibilities for Our Time*. Sachs, a macroeconomist who is director of Columbia University’s Earth Institute, is what I call an ‘optimistic optimist.’ He believes that it is not only possible to end poverty in our time but that ‘all parts of the world have the chance to join an age of unprecedented prosperity building on global science, technology, and markets.’

The 2008 World Bank-initiated Commission on Growth chaired by Michael Spence, Nobel Prize Laureate in Economics, presents a similar world view.

Various business-oriented sources have presented similar arguments. They include the 31 August 1998 special double issue of *Business Week* on the 21st Century economy and Knight Kiplinger’s 1998 *World Boom Ahead: Why Business and Consumers Will Prosper* (‘On the eve of the 21st century, the world stands on the threshold of a long, strong surge in economic growth and living standards, unprecedented in world history’).

It would be a mistake to ridicule the future scenarios of Global Boomers any more than those of Wake-Up Call authors. More importantly, because of the disjuncture between the two types of scenario, we should attempt to learn from them. Neither side adequately addresses the other’s arguments. Global Boomers have not shown how science and technology can offset the increasing consumption of natural resources, can resist
cultural, economic, political and religious fundamentalism, and can stem the degradation of the global environment. Yet many of their suggestions can indeed help reduce the living standard drop that I envision and that Wake-Up Call authors fear. Global Boomers, for example, emphasize the importance of the problem-solving potential of people – a theme which I stress throughout this book. Simon states it nicely in the conclusion of *The Ultimate Resource*: ‘The ultimate resource is people – skilled, spirited and hopeful people who will exert their wills and imaginations for their own benefit and inevitably they will benefit not only themselves but the rest of us as well.’

My research emphasizes that people are the greatest single resource that planners must utilize. This is not a common view among politicians, development planners or even social scientists. Within the World Bank, for example, the myth of the conservative peasant still exists. On the contrary, a large majority of families that I have studied want better health care, education for their children and improved wellbeing. That conclusion applies especially to low-income households living in communities under extreme stress due to such crises as conflicts and civil wars, natural disasters and development-induced involuntary resettlement.

During our long-term study of 57,000 Africans forced to move in the 1950s during the construction of a large dam on the Zambezi River, social anthropologist Elizabeth Colson and I observed that each time we returned to the resettled villages, only a small minority of village households were experimenting with new income earning or other innovations, such as shifting from cultivation with hoes to plowing larger holdings with oxen. Subsequently we learned that different households were innovating at the time of each revisit and that most households had either initiated risky experiments or had adopted the successful ones of their neighbors. This propensity to take risks occurred in spite of a high failure rate due to environmental constraints (drought and floods especially) and inadequate government policies and institutions over which villagers had no control, such as inept pricing policies and inefficient marketing institutions.

The Gwembe Tonga experience (see Chapter 6) can be generalized to the millions of poor people involuntarily resettled in connection with dams. Such resettlement is stressful and is initially associated with risk-adverse behavior by the majority. Yet in a statistical analysis of 50 dam projects around the world, mathematician and anthropologist John Gay and I found that most of those resettled would nonetheless respond to appropriate development opportunities and that the availability of such opportunities, and the active participation of resettlers in their planning and implementation, were statistically related to a successful resettlement outcome.
It is also important to keep in mind that advances in science and technology can have adverse impacts. They can increase unemployment and underemployment, an outcome often ignored by development economists, as discussed in the next chapter. They can adversely affect living standards and quality of life in other ways. In *The World is Flat: A Brief History of the Twenty-First Century* (2005), journalist Thomas Friedman analyzes ten globalizing forces (or flatteners) which have begun to work in a ‘complementary, mutually enhancing fashion’ to create a more level playing field. One result will be a world made ‘more equal and more intense’, in which ‘[w]e Americans will have to work harder, run faster, and become smarter to make sure we get our share.’ Hardly an appealing future for citizens of what is currently the world’s greatest power and who already spend more hours at work than people in other industrial societies!

I disagree with most Wake-Up Call authors in their faith that global living standards can improve, or at least not deteriorate, if their solutions to current problems are implemented. I do not mean to denigrate their proposals, which offer critically important ways to reduce declines in living standards and quality of life. But I question their optimism that an overall living standard decline can be avoided. Jared Diamond believes that having caused the world’s environmental problems, ‘we are the ones in control of them.’ All we need do to deal with those problems is to ‘reconsider core values’ and have the ‘political will’ to implement ‘solutions already available’ via a process of long-term planning. James Speth is more specific in discussing ways to avert environmental disaster, but he too believes that the natural beauty he has known ‘will be there for our children and their children and so on forever if we have the wisdom to protect it.’ Stern, the leading economist writing on the threat of global warming, nonetheless titles his most recent book *The Global Deal: Climate Change and the Creation of a New Era of Progress and Prosperity.*

**MY BACKGROUND AND QUALIFICATIONS**

I am currently emeritus professor of anthropology at the California Institute of Technology. Prior to attending college, my main interests were nature, mountains and people. I began a bird diary when I was ten, in which I recorded the birds seen each day. I expanded my diary’s contents during the next twelve years to include people met, rock climbing in Eastern North America and mountaineering in Western North America, including Alaska and British Columbia. At Harvard College, while president of the Harvard Mountaineering Club, I almost began a career as a...
professional mountaineer. I also hitchhiked during those years over 20,000 miles throughout the United States. Hitchhiking then was a wonderful experience for a young person and I am convinced had a major impact on my later shift from the natural sciences to the social sciences.

My formal education has been wide-ranging and eclectic. At Harvard College and Graduate School it included biology, archeology, history and ecology as well as social and cultural anthropology. I wrote my PhD dissertation on the human ecology of a Central African ethnic group. I also spent a year studying world religions at the Yale Divinity School and a year doing postdoctoral research in African anthropology and ecology at the London School of Economics. So from its very beginning my academic education and research has required me to cross disciplinary boundaries.

My overseas social science research began in 1956 when Elizabeth Colson, now professor emerita at the University of California, Berkeley, and I initiated our long-term study in Central Africa of 57,000 Gwembe Tonga villagers soon to be involuntarily resettled due to the construction of Kariba – the first mainstream dam on the Zambezi River. Now in its fifty-fifth year, our research has become the most systematic long-term study of how people are impacted by, and respond to a large-scale development project. My 18 research visits and over four years’ residence in what is now Zambia also have had a major impact on me and especially on my thinking about such global issues as poverty, development and environmental degradation.

Wanting to expand my knowledge of how large-scale development projects affect different ethnic communities, in 1962 I joined a research team conducting a study of 50,000 Egyptian Nubians soon to be displaced by the Aswan High Dam. In September 1964, before joining the faculty of Caltech later that year, I was recruited by the World Bank to work with three economists and an agronomist on the first major comparative analysis of small-scale African agriculture. That assignment began a close advisory and consultancy relationship with the World Bank that continues to this day. It has been advisory when I served on World Bank-required independent panels of environmental and social experts for large-scale dams in China, Laos and Lesotho and, at the request of the Bank, as resettlement adviser on a Canadian feasibility study of China’s Three Gorges Project. It has been as a consultant in India and in four African countries. My relationship with the World Bank requires some explanation since the Bank, as the premier development agency in the world, figures prominently in this book.

A global development bank is needed today and the World Bank, initially called the International Bank for Reconstruction and Development, was established in 1946 to play that role. The World Bank’s record in
achieving development in low-income countries, however, has been defec-
tive. For that reason, I have been very critical over the years of the Bank
as, to use a British parliamentary phrase, a member of the loyal opposi-
tion. It is also important to emphasize that the World Bank is not a mono-
lithic agency. Its staff has included a good number of constructive critics
who have achieved important policy and institutional changes within the
Bank.

I have continued throughout my career global research on low-income
societies, poverty and dry land and irrigated agriculture (which employ
more people worldwide than any other occupation). I completed during
the 1970s and 1980s global reviews of large-scale government and private
sector agricultural settlement projects for the United States Agency for
International Development (USAID) as well as for the World Bank.
Shorter consultancies for international organizations included the Food
and Agriculture Organization (FAO) of the UN (small-scale fisheries
worldwide and large-scale dam impacts in Nigeria), the World Health
Organization (WHO) on schistosomiasis (liver fluke) in Ghana, and the
United Nations Development Programme (UNDP) on the human impact
of the Jonglei Canal in the Sudan, dam resettlement planning in the
Ivory Coast and onchocerciasis (river blindness) in several West African
countries. I have also consulted for Environmental Defense and The
Nature Conservancy as well as for the Ford Foundation and the Navajo
Nation. Most of these consultancies were sponsored by the not-for-profit
Institute for Development Anthropology, which I co-founded with two
colleagues in the mid-1970s in order to incorporate environmentally,
economically and socially sound research into development planning and
implementation.24

My interest in people affected by large-scale development projects con-
tinues today. Large dams, for example, tend to be the biggest single invest-
ment in a country’s development portfolio at the time of their construction.
This is true, for example, of the Aswan High Dam, China’s Three Gorges
Dam, India’s Sardar Sarovar Project, Sri Lanka’s Mahaweli Project,
Ghana’s Volta Project at Akosombo, Nigeria’s Kainji Dam and Lesotho’s
Highland Water Project. My involvement in those projects also allowed
me to work with (and study) officials in governments, engineering firms
and international, national and private-sector financing institutions. In Sri
Lanka, for example, I was unofficial adviser to the Minister for Mahaweli
Development, who arranged meetings with President Jayawardene and
the chairman of the party in power. Currently I am one of three members
on an international panel of environment and social experts for Laos’s
Nam Theun 2 Dam Project; we report to the Minister of Energy and
Mines and to the Office of the Prime Minister.
Dam construction provides a quasi-laboratory situation in which impacts on affected people, and their responses, can be compared with development-induced resettlement elsewhere. Similar responses, regardless of environmental, cultural or national differences, have allowed me to develop a theoretical and policy-relevant frame of reference that predicts how a majority of those involved can be expected to behave over two generations during the different stages of the resettlement process.\textsuperscript{25}

I have also had the opportunity to observe cultural, economic, political and religious fundamentalism in different settings in many countries (including those in which Buddhism, Christianity, Hinduism and Islam are the dominant religions). In these countries I have also studied how different populations respond to poverty and development constraints and opportunities.

My background is similar in some ways to that of other authors, such as Jared Diamond, Paul Ehrlich and E.O. Wilson, who have also dealt with global threats. We have all been professors at major research universities with lengthy research careers that have brought us in contact with life-threatening global issues. Where my career differs from theirs is that, as a social anthropologist, I have researched a wider range of global issues from the bottom up, including the threats that are the focus of this book. As for my colleagues in anthropology, none have combined to the same extent systematic long-term research in a single area (in my case, the Middle Zambezi Valley in Zambia) with comparatively briefer studies throughout Africa, Asia and the Middle East, as well as in Canada and the United States – research that has brought me more public policy awards and recognition dealing with global development issues than any other anthropologist.

NOTES

3. ‘Return of the Population Growth Factor.’ Page 4. This 31 January 2007 report, prepared by the United Kingdom’s All Party Parliamentary Group on Population, Development and Reproductive Health, explains why the UN’s eight Millennium Development Goals ‘are difficult or impossible to achieve with the current levels of population growth in the least developed countries and regions.’


23. That assignment was in the mid-1980s. I did not sign off on the feasibility study because I considered the Three Gorges Project to be a bad one for several reasons.

24. After 20 years involvement as a founding director I resigned in the mid-1990s when it was clear that the type of research that we had pioneered in the 1970s was now well established in university international programs and private consultancy firms within the United States as well as increasingly within universities and research programs within low- and middle-income countries.