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Futurist Book Group Discussion

Collapse

**By Jared Diamond,
Viking, 2005
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synopsis of the May and June 2005 Futurist Book Group meetings; summarized by Ken Harris

On May 4 and June 1, 2005, The Futurist Book Group discussed *Collapse: How Societies Choose to Fail or Succeed* by Jared Diamond. FUTUREtakes readers will not mind the time required to read this 520 page best seller because the author writes in such a lucid and engrossing manner. They should read it because of its great lessons from history about how change happens and its clues to a global future we may encounter if mankind does not deal appropriately with environmental degradation. The author is a professor of geography at the University of California at Los Angeles and was awarded the Pulitzer Prize for his previous book, *Guns, Germs and Steel*.

In the Prologue, Diamond sets forth five factors that contribute to a society's collapse – environmental damage, climate change, hostile neighbors, decreased support by friendly trade partners, and the society's responses to its environmental problems. Of these, he says the first four may or may not explain a society's collapse, but the last – the society's response to its environmental problems is **always** significant. And, the balance of the book strongly supports this contention. Although man is damaging the environment everywhere today, readers can derive some comfort from our current ability to observe and record long-term environmental damage and assess its consequences whereas some of the failed societies lacked this ability.

An avid fisherman, Diamond loves the state of Montana for its fishing and natural beauty. Part 1 of the book is a chapter on Montana. It concludes that if Montana were an isolated independent nation, it might suffer the same fate as some of the failed societies he discusses later in the book. He cites deforestation and environmental damage from mining as principal causes for Montana's decline from a relatively wealthy to a poor state. For Diamond, the long-term trends in Montana echo those in several failed societies!

LESSONS FROM THE PAST

Part II, Past Societies discusses the failures of societies on Easter and Pitcairn and Henderson Islands, the Anasazi and their neighbors, the Maya, and the Viking Norse on Greenland in contrast with the successes of the New Guinea highlands peoples and the Japanese. Diamond attributes the failure of Easter Island society principally to deforestation. Deforestation caused the islanders to lose raw materials and wild-caught foods and to incur decreased crop yields. The loss of wood from native tree species meant, among other things, that Easter Islanders lost the ability to build seagoing canoes that allowed them to hunt porpoises and deep water fish, their previous main sources of protein and, even more important, without seagoing canoes the islanders had no way to escape when life on Easter Island was no longer viable. Diamond says, “Easter’s isolation makes it the clearest example of a Society that destroyed itself by overexploiting its own resources.”

Diamond concludes the main cause of the failure of the Pitcairn and Henderson Island societies was the breakdown of an environmentally damaged trading partner. Environmental damage was also a contributing factor, but climate change and enemies were not. The island of Mangareva was largely self-sufficient in the necessities of Polynesian life except that it lacked high quality stone, but Pitcairn was able to export stone to Mangareva and Henderson. Henderson could export foods like live sea turtles to Pitcairn and Mangareva. Hence a flourishing trade developed among the three islands with export of many goods from Mangareva being critical to maintaining societies on Pitcairn and Henderson. This trade pattern disappeared when overpopulation and deforestation deprived the people of Mangareva of the ability to build seagoing canoes, and eventually the populations of Pitcairn and Henderson disappeared when they no longer had the lifeline available to them.

According to Diamond, four of the five factors that can cause societal collapse caused the collapse of the Anasazi societies of the American southwest, which have been archeologically studied at Chaco Canyon in New Mexico – human environmental impacts, especially deforestation and arroyo cutting, climate change, internal trade, and the society’s response to environmental problems. Different Anasazi groups supported each other with extensive internal trade in food, timber, pottery, stone and luxury goods and became highly interdependent, but this also made the society more vulnerable to collapse. Of the five contributory factors, only hostile enemies did not play a role. Interestingly, Diamond observes that Anasazi society survived for 600 years – longer than people of European descent have lived in the Americas. He says, “Over the course of six centuries, the human population of Chaco Canyon grew, its demands on the environment grew, its environmental resources declined, and people came to be living increasingly close to what the environment could support. That was the *ultimate* cause of abandonment. The proximate cause, the proverbial last straw that broke the camel’s back, was the drought that finally pushed Chacoans over the edge, a drought that a society living at a lower population density could have survived.”

In succeeding chapters, Diamond applies similar reasoning to the Maya civilization, the six Viking colonies on the North Atlantic Islands, and Norse Greenland. The author attributes the decline of Maya civilization to 5 principal factors. First there was a classic Malthusian overpopulation crisis in which population growth outstripped available resources. Second, deforestation and hillside erosion caused a decrease in the amount of useable farmland when more farmland was needed. Third, more and more Mayans fought each other over dwindling resources. Fourth was droughts caused by climate change. At first, the Mayans could move from areas affected by drought to unaffected areas, but, as the population increased, there were ever fewer unoccupied areas to which they could move. Finally, no one Maya city could consolidate control over the entire region, so kings and nobles continually fought with each other for short-term gain while endangering the long-term interest of the people.

Diamond concludes Part 2 with accounts of how two small-scale societies, New Guinea and Tikopia Island, and one large society, Japan, have succeeded in living sustainably for thousands of years. Diamond attributes the success of Tikopia to its small size, the people’s cooperative use of farmland and

places to fish, and collective decision-making. After a great fire of 1657, successive Japanese shoguns invoked Confucian principles to limit consumption in contrast to the overconsumption and deforestation, which had taken place previously. Increased reliance on seafood lessened the pressure on farming. Near zero population growth was achieved. Beginning in the late 17th century, coal was used as a fuel instead of wood, and an elaborate system of woodland management was in place by 1700. Japan gradually developed plantation forestry.

MODERN SOCIETIES

Continuing his explanations of successes and failures in a unified theme, Diamond discusses failures and sustainability problems of modern societies – Rwanda, the Dominican Republic and Haiti, Australia and China – in Part 3. In the case of China, Diamond begins his chapter with a familiar recital of China’s environmental problems –air pollution, biodiversity loss, cropland loss, disappearing wetlands, soil erosion, water pollution and shortages, etc. He notes that these Chinese problems are also world problems because of China’s size, population and area. Moreover, as others such as Lester Brown have observed, China’s adverse environmental impact will be even greater if it succeeds in achieving first world living standards. The number of Chinese households has been growing at 3.5% a year compared to population growth of only 1.3% per year because of a sharp decline in the number of people per household. Also environmentally significant is the rapid urbanization of China. Exchange between China and the rest of the world, asserts Diamond, damages both the Chinese environment and the rest of the world’s environment. Some first world countries pay China to take their garbage. Some first-world countries have transferred polluting industries to China. China is also now the world’s largest producer and consumer of gaseous ozone producing substances. By being largely de-forested itself, China exports de-forestation to the rest of the world by importing huge amounts of timber.

In Australia, observes Diamond, one major area of environmental concern is the low productivity of its soil. Soil nutrients became quickly exhausted so that chemical fertilizers soon had to be added to the soil, and more land than in other first world countries has to be cultivated to obtain equivalent crop yields. The low Australian soil productivity has also made tree growth rates in Australia low compared to those in other timber producing countries. Moreover, because relatively small amounts of soil nutrients drain into Australia’s rivers and coastal waterways, Australia’s fisheries are not especially productive. In addition, Australia’s soils have a high salt content.

Another difficult and better- known Australian environmental problem is a lack of water. Much of the country is desert and useless for agriculture. Moreover, its rainfall is unpredictable. The one exception is Australia’s southwestern wheat belt, where until recently winter rains allowed a successful wheat crop almost every year. Even there, global climate change has been making the winter rains even less predictable.

Besides environmental fragility, Australia suffers from “the tyranny of distance.” That is, its long distance from export markets make only low-bulk, high-value items like steel, minerals and wool the only ones that are economical for export. A tyranny of distance also exists within Australia because it is so sparsely populated. Its area is as large as the lower 48 US states but its population is only 1/14 as large. Thus within Australia there are only large cities and villages of a few hundred people – the former able to survive drought because of the ability to integrate the economy over a large catchment area, the latter able to survive it because of a lack of economic activity,.

Like the Norse settlers of Iceland and Greenland, the English settlers of Australia caused many of Australia’s environmental problems by importing cultural mores that were successful in Europe but ill-suited to local Australian conditions, most especially raising sheep to produce both wool and meat and

importing foxes and rabbits to permit the settlers to carry on English hunting practices. Only in the last quarter century has Australia begun to see itself as an Asian rather than a British country.

What signs of hope does Diamond see for a brighter Australian future? One is that Australian farmers are starting to realize that past farming methods cannot be sustained. Another is the many private initiatives throughout the country that are seeking to restore the land. In addition, economists are beginning to ask whether Australia would be better off by dismantling much of its agricultural enterprise.

WHAT'S YOUR EXCUSE TO FAIL?

In Part 4, Diamond sets forth some practical lessons from the experience of the past and modern societies he has studied. These lessons are a “road map” of why societies make bad decisions that can lead to failure:

1. Groups may do disastrous things because they failed to anticipate a problem before it arrived or they may have had no prior experience with such problems (e.g., the British introduction of foxes and rabbits into Australia).
2. Experience is not a help if a problem happened so long ago it has been forgotten. This is especially important for non-literate societies. Even literate societies forget things. Americans forgot the oil crisis of the 1970s when they began buying SUVs in large numbers.
3. Societies can reason by false analogy. The Vikings thought because the soils of Britain and Norway could not be easily blown away the soils of Iceland could not be easily blown away.
4. Societies can fail to perceive a problem even after it arrives because:
 - a. The origins of a problem may be imperceptible;
 - b. Managers responsible for solving the problem may not be close to it; or
 - c. It can be a slow trend concealed by broad fluctuations.
5. Societies may fail to solve a problem after it has arrived, even if they perceive it, because:
 - a. Some people are powerful enough to continue to benefit by harmful behavior (e.g., recipients of uneconomic agricultural subsidies in the US); or
 - b. No one is responsible for preserving what society as a whole, but no particular individual owns (i.e., the tragedy of the commons) such as when fisheries are overfished.
6. Problems may not be solved because of the actions or inactions of self-absorbed kings, chiefs, and politicians.
7. Societies may pay excessive attention to religious values.

POINTS FOR THE CLASSROOM (send comments to forum@futuretakes.org):

- *If countries maintain their usual approaches to climate change and environmental degradation, what are the implications for their relative economic and military status?*

- *Considering Diamond's discussion of Australia's large cities and very small villages, what types and scales of economy are likely to survive a major change in climate or the environment?*
- *What are the long-term consequences of soil demineralization and of remediation via chemical fertilizers (see Diamond's discussion of Australia) – notwithstanding the fact that farmers can feed more people per acre today than was possible decades ago?*
- *What are the environmental and geostrategic consequences of exporting polluting industries to China? (Time warp: How did this compare with US President Thomas Jefferson's vision of the US as an agricultural society?) Can a country remain a superpower if it is a capital trader but not a manufacturer?*
- *Many environmental problems and climate change issues are associated with overpopulation – but to what extent is the level and type of consumption a factor (i.e., if the entire world were a US or Western Europe look-alike in terms of both consumption and population density, would the impact to climate and the environment be any less)? In addressing this point, also consider Diamond's discussion of sparse populations and the resulting “tyranny of distance” in Australia.*
- *How is the need for crisis anticipation and preemptive response reconciled with a common political model, by which elected officials make decisions for near-term gain and are safely re-elected – or out of office – long prior to the “day of reckoning”? On the other hand, what are some possible preemptive responses, and how would they change the way people live? Are some contemporary societies better at crisis preemptive response than others?*
- *Finally, can you add to Diamond's five factors that contribute to the collapse of a society?*

Also see “points for consideration” appended to “Climate Change: An Inter-Generational Hot Potato,” this issue.