

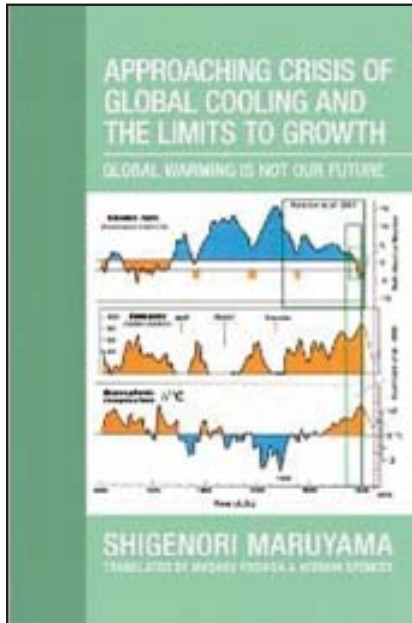
## BOOK REVIEW

**Approaching Crisis of Global Cooling and the Limits to Growth—Global Warming Is Not Our Future** by Shigenori Maruyama. Xlibris, 2012. 156 pp. \$19.99 (paperback). ISBN 978-1477128589.

I have to confess that, when I received the invitation to review the new book published by Shigenori Maruyama, my first impulse was to quickly search the Internet for more information about him. Why? Because Shigenori Maruyama is not a largely known name in either field of proponents or skeptics of anthropogenically driven global warming. In addition, the author is from Japan (the country where the Kyoto Protocol originated), and I am not familiar with Japanese scientists actively involved in climate change debates. These were my reasons for reviewing the book *Approaching Crisis of Global Cooling and the Limits to Growth—Global Warming Is Not Our Future*.

Shigenori Maruyama is a professor at the Tokyo Institute of Technology and a reputable geologist with important contributions describing the role of superplumes in driving the Earth's mantle geodynamics. His interests in climate change studies have the air of a pioneering work, testing the waters and trying to make a point. This situation has its advantages and pitfalls at the same time. Being a novice in the field of climatology, someone may enjoy the status of a candid person, without an agenda. His views are like fresh air in a suffocating arena. At the same time, the lack of credentials in the same field (just one publication in 2008) may jeopardize the credibility of his views which have not been peer-reviewed and accepted in the specialty literature.

After a **Prologue** that sets the coordinates of the entire book, Professor Maruyama exposes **The Crazy Concert of Global Warming** (Chapter 1) that started, according to him, with “the sensational *Inconvenient Truth*” (it is more correct to say “*An Inconvenient Truth*”). Next, we are presented with, among other things, the “*Origin of the Theory of Criminality of Carbon Dioxide*” which is going to be demolished in Chapter 2, **Collapse of the Theory That Carbon Dioxide Is the Criminal**. The refutation is invoking well-known arguments, such as sun spots, cosmic rays, geomagnetism, volcanic activity, or Milankovitch cycles (the author or translators write “Milankovitch cycle,” which is incorrect, because there are



three Milankovitch cycles, not only one). This chapter contains the direst prediction in the entire book: “It is considered that the atmospheric temperature will meet the lowest value for the last one hundred years in 2035 when the solar activity will come to the bottom of the valley” (p. 50), after which “the food production will surely decrease.” This means that we have only 22 years left to deal with the cooling climate apocalypse!

The omen of upcoming global climate cooling is detailed in Chapter 3, **A Cold Period Surely Comes Shortly**, in which the author argues that “variations in solar activity, cosmic rays, geomagnetism, and atmospheric temperature for the

past some hundred years point to the cooling of the earth within some tens of years” (maybe 22 years). This kind of prediction is *locus classicus* in climatology textbooks and the author does not add anything new. What would have been interesting here is the possible offset of this cooling event by increasing anthropogenic carbon dioxide concentration in the atmosphere. As a matter of fact, this is the gist of the current climate change debate: Can *enhanced* global warming (that produced by human activities in addition to *natural* global warming) offset/stop/reverse the cooling trend of the climate as inferred from trends of atmospheric temperature change for the last 400,000 years?

An interesting point the author makes here is that the history of Japan records seven famine episodes in the last 400 years and all of them coincide with climate cooling episodes (Figure 24, p. 67). This demonstration leads the author to develop a gloomy future for humankind where “the true terror is a coming cold period” (p. 64).

Starting with Chapter 4, **What is the True Crisis?**, we are introduced to some of Professor Maruyama’s own research (the theory of plume tectonics), and then we are presented seven countermeasures for the heat island effect, which can artificially increase temperature readings (for example, “Tokyo has had an average 3 °C rise of atmospheric temperature over the last one hundred years, although the world average is only 0.7 °C,” (p. 84).

Water and air contaminations are discussed next, and the author claims that measures to combat these two contaminations are “more urgent” than taking “measures against global cooling.” This chapter also introduces the second theme of the book title, “*The Limits to Growth: Explosion of Population and Exhaustion of Resources*.” I cannot agree more with Professor Maruyama’s statement because I teach a course “Oil, Water, Population, and Climate: A Synergy” that discusses in great detail the inextricable (synergetic) links among population explosion, climate changes, and depletion of energy and water resources.

**The Wisdom and Future of Human Beings** (Chapter 5) is the capstone of this book. It integrates local situations (“*Japan Shrinks without a Strategy*”) with more global issues: “*Danger of Famine and War*” (a direct consequence of global cooling), or “*Necessary Effort for Saving Oil and Developing New Energy*” (here, in addition to the more effective use of oil and the introduction of burning biomass, the author makes a bold bid for the use of nuclear fusion energy. As we know it now, nobody has been able to produce that kind of energy, and we only hope that future generations will create the technology to harness the power of nuclear fusion). The last pages of this chapter recapitulate two previously discussed topics: “*A Large Human Population as the Biggest Environmental Problem*” and “*A Program for Decreasing the Population Should Start Urgently*.”

The book’s **Epilogue** takes the reader back to the previous description of the major factors that control atmospheric temperature, already mentioned in detail in Chapter 1 and occasionally in other chapters.

Overall, this rather slim book (156 pages) illustrates, using mostly common examples from the literature, the theory of impinging global cooling as opposite to the current view of inevitable global warming supported by other scientists. Without his own published research in climatology, the author relies heavily on published papers dealing with climate changes and offers his own interpretation of these papers, mostly along the lines of so-called climate skeptics. The fact that many of his important allegations/statements are not supported by citations of representative papers makes this book a popularization work rather than a pure scientific endeavor (in other words, the reader should accept the author’s claims without having the opportunity to check the facts by searching the corresponding literature). The book was printed by a vanity publisher (Xlibris) that does not ask for peer reviews and this situation clouds the scientific authority of the text. I believe that if peer-reviewers were employed, some mistakes (I already mentioned two above) would have been corrected. The text discusses “*The Paradox of the Darkened Sun*” (p. 48), when the common name in English is “*The Faint Young Sun Paradox*.” On p. 63 we read about “a

cold period globally and thus has been called the *Small Glacial Age*.” The translators should have known that the consecrated term here is “the *Little Ice Age*.” It is also unusual to read that the “*digital goal* of minus 6% was imposed on Japan” (p. 26). What is a “*digital goal*”? Is there something like “*an analogue goal*” to contrast it with? On p. 45 the author writes: “*The Earth has a diameter of 6,400 km*.” That is the earth’s *radius* (half of the diameter, which is about 12,756 km at the equator). Next, on p. 68, we read: “weakening of the *Mexico Current*, resulting in cold climate in Europe.” I am sure the author/translators meant the *Gulfstream Current*.

I also found some ungrammatical English translations (although one of the translators is a native speaker of English): It is about the anthropomorphization of some things that in English are without gender. For example, the surface environment, the United States of America, and the Earth are referred to as “she.” They may be feminine nouns in Japanese, but in English you have to use poetic license to address those things as “she.”

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