

## Global Warming or Cooling in 21 Century

# Shigenori Maruyama[1]; Toshikazu Ebisuzaki[2]; Kanya Kusano[3]; Shuichi Yanai[4]

[1] Earth and Planetary Sci., Tokyo Institute of Technology; [2] DRI, RIKEN; [3] ESC/JAMSTEC; [4] J-Geo.com

Topics on the global warming is beyond the scientific debate to involve human society, economy and politics over the world. Scientifically this matter has not yet been solved as an artificial origin of CO<sub>2</sub> derived from fossil energy of oil, natural gas, and coal burned since the Industrial Revolution particularly for the last 150 years. Yet, this might not be correct, instead, another potential interpretation by Svensmark et al. (1998) who speculated that decreased amount of cloud due to the increased Galactic cosmic rays explains the observations we have. Even in the 4th IPCC Report, the artificial origin of global warming is attributed to be a possibility, although it can be highly probable.

In spite of possibility, it turned to the absolute truth through mass communication (media), and political scientists and governments in the advanced countries are trying to reduce atmospheric CO<sub>2</sub> by lesser amounts of burning fossil resources as a political ethics. Our nation Japan is one of the leading countries to agitate the political movement, by the Kyoto Declaration.

Recently, a group of scientists appeared to predict that 21 Century will be the global cooling (Maruyama et al., this issue). If the global cooling is correct, it costs much more fuel resources than the global warming, and causes chemical pollutions in atmosphere and waters.

21 Century would be the convulsion period that has never appeared through the history of human being for the last 10000 years. The most fundamental major reason for this convulsion is due to the anomalous exponential increase of world population. The sustainable society on this planet must be based on the stable and reasonable number of world population, say, 3.0-4.0 billion; yet already over 6.6 billion population. The politics how to make smoothly the world to reduce the pollution before the global cooling must be necessary urgently.

In this special symposium, we intend first to debate global warming or cooling in 21 Century (Day 1), then discuss the changing role of mass communications by media peoples on newspapers, TV, magazine, free journalists, government officials and politicians (Day 2 and 3), and finally discuss the technology to control the surface environments of the Earth by space technology (Day 4). In addition, the technology to improve the heat island Tokyo will be given through the direct exchange of idea with politicians in the Metropolitan Assembly Tokyo in Day 4.