

## Global Warming and Climate Change: An Observation

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### Editorial

Global warming and climate change have been the topic of discussion among scientists, researchers, politicians, policy makers, members of civil society, and people of all walks of life for more than 20 years across the globe. This discussion started in the 1980s as the “green house effect” – warming of the atmosphere due to the absorption of earth’s outgoing long wave radiation by the greenhouse gases. Initially, this discussion was only among climate specialists, but started to become widespread after the formation of the Intergovernmental Panel on Climate Change (IPCC) in 1988 by the World Meteorological Organization (WMO) and the United Nations Environmental Program (UNEP). Another event helped to generate this attention, particularly among the world’s national governments, was the first Earth Summit held in Rio de Janeiro in 1992. Both the IPCC and the UNEP assess the scientific, technical, and socio-economic information relevant for understanding risk associated with human-induced climate change. Since 1988, both have published reports on global warming and climate change and advocated the urgent need for action to prevent or reduce potential impacts climate change [1].

Because of the attention in the mass media, and activities of concerned groups, including both foreign and domestic non-governmental organizations (NGOs), people all over the world are not only aware of this issue, but are also concerned regarding its various impacts on humans, particularly those who live in coastal areas. Yet, a considerable number of people of both developed and developing countries do not accept the reality of global warming and climate change. This disagreement has resulted from a number of reasons and the objective of this editorial is to shed some light on one specific reason.

After the occurrence of an extreme weather event, some journalists and people – presumably supporters of global warming and climate change – use the event as an example of one of the consequences of global warming and climate change [2]. Because of this premature claim, some people, both climate change believers and non-believers, often question the reality of such natural phenomena. For example, last year the United States experienced a record number of tornado outbreaks as well as tornado-induced deaths. Some, including several researchers, immediately found a link between climate change and tornadic events, particularly the deadly tornado event that occurred in Joplin, Missouri on May 22, 2011 [3]. So far this year the occurrence of tornadoes in the United States has been below average. Similarly, last

year Europe experienced record low temperatures during the winter, which discredited the phenomenon of global warming in the minds of some people. However, for many this year’s record breaking warm weather in the United States provides support for the global warming hypothesis.

Developing countries are no exception to this situation. For example, after each major flood in Bangladesh (which will likely be among the worst victims of global climate change) some local as well as foreign experts found a direct association between these events and global warming [4]. No flood similar in magnitude to the 1998 flood occurred in the country for the subsequent 16 years. However, after back-to-back floods and Cyclone Sidr which wrought havoc on the country in 2007, experts and others blamed these events on global warming and climate change. Bangladesh has not, however, experienced any major flood or tropical cyclone since 2007.

Reaching any conclusion regarding global warming and climate change by merely observing one or two years trend in the occurrence of extreme and unusual weather events is scientifically untenable, and this conclusion, in fact, makes many suspect that no fundamental change in climate is occurring. There is no question in minds of many people, including myself that human activities have indeed intensified global warming, but many manifestations of such warming are not clearly evident to date. Now is right time to address the potential direct and indirect impacts of the phenomenon as the IPCC has been doing. I whole-heartedly concur with a recent report by the National Research Council which urges all interested parties to stop debating the reality of climate change and focus on the “pressing need for substantial action,” including an extreme reduction in greenhouse gas emissions and more aggressive investment in alternative energy sources [5].

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