



## Foundation Day Lecture reveals more evidence of climate change with Sun's atmospheric

**New Delhi, August 21, 2014: The Sun influences the Earth's climate, and during the last century there has been a gradual warming of the atmosphere related to human activity.** The present solar models predict that the early Sun was about 30 per cent fainter than it is now. In about three billion years, the outer atmosphere of the Sun will begin to swell so much that our own atmosphere will heat up. Eventually the Sun's outer layers will envelop Mercury, Venus and probably our planet as well, said **Dr Siraj Hasan**, Distinguished Professor and Former Director of the Indian Institute of Astrophysics. He was delivering the **Thirteenth Darbari Seth Memorial Lecture**, organized by The Energy and Resources Institute (TERI), in New Delhi today.

Speaking on the occasion, **Dr R. K. Pachauri**, Director General, TERI, said: "Mr Darbari Seth was a brilliant engineer, a remarkable leader and an innovator in every aspect of industrial activity. Besides, he had a deep commitment to social causes and intellectual activity which motivated him to establish TERI. The Darbari Seth Memorial Lecture held each year gets leaders of various professions to present their knowledge and articulate a vision for this country. This year, we are fortunate to have Dr Siraj Hasan, whose knowledge will provide rich intellectual material, and will be helpful for all decision makers and thinkers in this country."

Delivering the presidential address, Dr Najma Heptulla, Hon'ble Minister of Minority Affairs, said Mr Darbari Seth worked on several key issues such as energy security and modern technologies, which are even more relevant today. As our Prime Minister has stressed the need to focus on the widespread use of technologies, including swadeshi innovations, I am glad to see TERI is doing work on similar lines to promote inclusive growth.

The lecture entitled, '**Journey to the Sun: A Gateway to the Stars and the Universe**', focused on the importance of the Sun, our main star in the solar system and the source of energy that provides sustenance to the Earth and humanity. Dr Hasan said **the Sun is a cosmic powerhouse that has a profound impact on our planet and its future.** Its stormy atmosphere displays rich phenomena ranging from sunspots to powerful explosions that strongly influence the Earth and the space environment. The Sun's activity is fundamentally due to solar magnetism and its emission changes with the sunspot cycle as well as on longer time scales of centuries to millions of years.

He added, "Major studies by the Intergovernmental Panel on Climate Change have carefully examined over 100 years of measurements and concluded that the average global temperature has risen about 0.8 degree

Celsius. The years 1983– 2012 have likely been the warmest 30 years in the last 1400. **The gradual temperature increase is related to the emission of greenhouse gases such as CO<sub>2</sub> and most likely human activity.**”

Talking about the National Large Solar Telescope (aperture 2 m) that will be installed in Ladakh, he said, **“It will be one of the world’s most powerful solar telescopes to address a multitude of crucial, well-posed problems in astrophysics and critical issues in the Sun’s important influences on the Earth** (“space weather”), and understanding the release of solar energy into the solar system on a gigantic scale. It is ready to go into construction and become operational within five years.”

The audience comprised dignitaries, senior bureaucrats, embassy, High Commission Officials, entrepreneurs, representatives from NGOs, academicians, scientists and researchers, who paid rich tributes to TERI’s founder Mr Seth.

The Darbari Seth Memorial Lecture series was initiated by TERI in 2002, in the memory of the Institute’s visionary founder and noted technocrat- industrialist, Mr Darbari Seth. Under his guidance, the institute witnessed a meteoric rise - and today has emerged as an institution that has spread across various parts of the globe. Since its inception, many of India’s eminent luminaries and stalwarts have delivered the lecture, including Mr N R Narayana Murthy, Mr Sam Pitroda, Mr Anand G. Mahindra, Mr Mukesh D Ambani, Dr Kiran Mazumdar-Shaw, among others. Senior Union ministers and policymakers such as Dr Murli Manohar Joshi, Mr Kapil Sibal, Mr Montek Singh Ahluwalia, Mr Sushilkumar Shinde, and Dr M. Veerappa Moily have participated in the previous lectures.

### **About TERI**

TERI is an independent, not-for-profit research organization deeply committed to every aspect of energy, environment, and sustainable development. Headed by Dr R.K. Pachauri, also the chairperson of the Nobel Peace Prize winning climate change body, IPCC, TERI has emerged as an institution of excellence for its path-breaking research, and is a global brand widely respected by political leaders, policy makers, corporate entities as well as the civil society at large. For more information, visit [teriin.org](http://teriin.org), and connect with us on [Twitter](#), [Facebook](#), and [LinkedIn](#).

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