

**ADDRESS BY HON D. GOKHOOL,
MINISTER OF INDUSTRY, SCIENCE
AND RESEARCH**

**LAUNCHING CEREMONY
OF
ASTRONOMY EXHIBITION**

Monday 30 November 2009

at 10 00 hrs

RGSC – Bell Village

Prof.Muddun Bhuruth, Chairman of the RGSC Trust Fund

Dr. Maulloo, Director, RGSC

Distinguished Guests

Dear Students

Members of the Media

Ladies and Gentlemen

Good morning and thank you for inviting me to today's function.

It's always a pleasure for me to be at RGSC.I have been present in all the major events organised at the Rajiv Gandhi Science Centre,during this year, namely the Science Communication Contest, the Junior Science Adventure and recently the National Science Challenge.

It is an opportunity for me to wrap up a full year of activities by another big event. I am pleased to be here this morning at the Rajiv Gandhi Science Centre at the Launching of the Astronomy Exhibition and the Prize Giving Ceremony of the Sundial Competition.

The Context

With the International Year of Astronomy 2009 (IYA2009), an initiative by the International Astronomical Union and UNESCO, we are celebrating a momentous event. The first astronomical use of a telescope by Galileo, an invention that initiated 400 years of astonishing astronomical discoveries. This event triggered a scientific revolution which has profoundly affected our worldview.

Now telescopes on the ground and in space explore the Universe, 24 hours a day, across all wavelengths of light. The President of the International Astronomical Union (IAU) Catherine Cesarsky says: *The International Year of Astronomy 2009 gives all nations a chance to participate in this ongoing exciting scientific and technological revolution.*

For thousands of years the human eye was the only instrument available to observe the universe. The invention of the telescope changed that. Now astronomers use cutting edge technology to assemble giant mirrors on remote mountaintops to look out through the thinnest layers of the clearest atmosphere to the farthest celestial objects.

Radio telescopes collect faint signals from outer space. Scientists have even launched telescopes into Earth orbit, high above the distorting effects of our atmosphere. And the view has been breathtaking.

Search for our cosmic origin

The IYA2009 is a global collaboration for a peaceful purpose, the search for our cosmic origin, a common heritage that connects every citizen of planet Earth. The science of astronomy represents millennia of collaborations across all boundaries: geographic, gender, age, culture and race, providing a full consistency to the UN Charter principles. In that sense, astronomy is a classic example of how science can contribute towards a deepening international cooperation and collaboration.

So in 2009, in the International Year of Astronomy, we are celebrating Galileo's legacy and all the discoveries that have taken place in the intervening years, as well

as the explosion of knowledge that we are witnessing now, made possible by new technologies.

Astronomy in Mauritius

It is opportune to highlight our country's involvement with astronomy, especially the transit of Venus which helped to calculate the distance between the Earth and the Sun. In 1761 and 1874, the Mascareignes islands were considered among the best sites for observing transit of Venus. In 1761, the famous French Astronomer Alexandre-Guy Pingré observed the transit of Venus at the island of Rodrigues.

Mauritius played an important role in this human adventure of measurement of our universe in 1874.

Four teams were busy making observations in Mauritius about the transit of Venus in 1874. Lord Lindsay a British astronomer set up his observation site on the Belmont state. Charles Meldrum, the Director of Royal Alfred Observatory observed the transit at Pamplemousses and two other teams at Port Louis and at Solitude near Plaisance airport.

In June 2004 the Transit of Venus was observed from Mauritius. The RGSC was one of the focal point for observing this rare celestial phenomena. More than 5000 visitors had the opportunity to view this transit with the help of telescopes from RGSC.

In 1753 the French Astronomer Abbe de la Caille made an expedition towards South Africa and Mauritius to carefully observe the Southern Hemisphere. He charted the positions of almost 10,000 stars, catalogued 42 nebulas, named 14

constellations; and is widely regarded as the person who laid the foundations for modern Southern Hemisphere astronomy.

MRT

Mauritius is among the few countries in the Southern Hemisphere to have a radio telescope. The Mauritius Radio Telescope (MRT) found at Bras D'eau takes images of the sky at metre wavelengths. It is a collaborative scientific endeavour by the University of Mauritius and the Raman Research Institute and the Indian Institute of Astrophysics that are both in India. The MRT was inaugurated in November 1992 as a joint Indo-Mauritian venture. The MRT has made important contributions to the field of Astronomy and Astrophysics. It has surveyed the Southern Radio Sky at 150 Megahertz. MRT images has revealed star forming regions, supernova remnants and radio galaxies . MRT also observed and studied clock-like pulses from pulsars.

Apart from its general objective of advancing the field of astronomy and astrophysics, the MRT also aims at improving the understanding and appreciation of astronomy amongst the public and hence generating interest in this important subject. To achieve this, MRT is involved in many different kinds of activities. Workshops, open days for the public, night sky viewing using the optical telescope at MRT, briefing sessions for university students, international and local meetings are the means used by MRT for bringing astronomy to the public.

In spite of its limited facilities MRT has gained worldwide recognition as a centre of excellence. It received an award from NASA in 2004 as recognition of its excellence on education and discovery.

The SKA project

The Square Kilometre Array project is an ambitious project which South Africa is bidding to host. The SKA is about the world's most powerful radio telescope, the Square Kilometre Array (SKA)

At about 50 – 100 times more sensitive than any other radio telescope on Earth, the SKA will be able to probe the edges of our Universe. It will help us to answer fundamental questions in astronomy, physics and cosmology, including the nature of dark energy and dark matter. It will be a powerful time machine that scientists will use to go back in time to explore the origins of the first galaxies, stars and planets. If there is life somewhere else in the Universe, the SKA will help us find it.

Following an initial identification of sites suitable for the SKA by the International SKA Steering Committee in 2006, southern Africa and Australia are the finalists. A consortium of the major international science funding agencies, in consultation with the SKA Science and Engineering Committee (SSEC), will announce the selected site for the SKA in 2012.

The construction of the SKA is expected to cost about 1.5 billion Euro. The operations and maintenance of a large telescope normally cost about 10% of the capital costs per year. That means the international SKA consortium would be spending approximately 100 to 150 million Euro per year on the telescope. It is expected that a significant portion of the capital, operations and maintenance costs would be spent in the host country. South Africa offers a competitive and affordable solution for constructing, operating and maintaining the SKA.

Mauritius is one of the partner countries with South Africa for this ambitious project

National Committee

The International Year of Astronomy 2009 is supported by eleven cornerstone projects. These are global programmes of activities centred on a specific theme, and are seen as the means of achieving IYA2009's main goals. They include, among others, the promotion of women in astronomy; the preservation of dark-sky sites around the world; and educating and explaining the workings of the universe to millions. These cornerstones underpin the success of the IYA2009.

It is laudable that a National Committee was set up in our country to spearhead programmes and activities for IYA 2009 with strong emphasis on education, public engagement and the involvement of young people. The National Committee helped established collaborations and networking of professional and amateur astronomers, educators, and the media so that valuable knowledge on Astronomy can be shared.

The vision of the IYA2009 is to help the citizens of the world rediscover their place in the Universe through the day and night time sky - and thereby engage a personal sense of wonder and discovery. All humans should realize the impact of astronomy and basic sciences on our daily lives, and understand better how scientific knowledge can contribute to a more equitable and peaceful society.

The aim of the IYA2009 is to stimulate worldwide interest, especially among young people, in astronomy and science under the central theme **“The Universe, Yours to discover”**. IYA2009 events and activities will promote a greater

appreciation of the inspirational aspects of astronomy that embody an invaluable shared resource for all nations.

By setting up an Exhibition on Astronomy and organizing activities like the Sky Observation, Galileo Teacher Program and Sundial Competition to name a few , we are proud to say that Mauritius has participated in some major Cornerstone Projects which is in line with the vision and aim of IYA 2009.

Conclusion

I commend all students and teachers who participated in and benefited from each activity of IYA 2009. Programmes and activities in the International Year of Astronomy strongly complement the school curriculum. Such efforts also help to nurture in our youth a deep and abiding interest in the sciences, which is an important foundation for knowledge, inquiry and innovation to tackle the complex issues of tomorrow.

I would like to congratulate all students who have participated in the Sundial Competition and urge you to continue to grow your passion for Astronomy through discovery and learning. I would also like to thank our educators and Rectors who played a very important role in supporting our students.

Galileo changed the world when he pointed his telescope to the sky, and now it's your turn. We need you to study, do well in school, explore everything from the infinite reaches of space to the microscopic smallness of the atom. We need you to think bigger and to dig deeper and to reach higher. And we need your restless curiosity and your boundless hope and imagination. Our future depends on it.

Quotation from Galileo Galilei :

“All truths are easy to understand once they are discovered; the point is to discover them.”

Thank you for your kind attention.

Monday, November 30, 2009

