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**ENVIRONMENTAL SCIENCES PROGRAM AT HYDERABAD CAMPUS OF
TIFR**

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ABSTRACT:

Environmental science is the study of the local and global environment, which encompasses a variety of broad disciplines. A traditional environmental sciences program deals with the research themes in transport processes at multiple scales on earth, terrestrial ecology, microbial system biology and ecological management. However, a fundamental characteristic of the natural environment is its dynamic nature and presents challenges that range from the local to the global, and from the immediate to the long-term. Climate change and ecosystem degradation and many other dynamic environmental phenomena require thorough understanding of the processes that drive and control the dynamics of our environment. Earth's atmosphere plays the most vital role and its thermodynamics is controlled by the energy input from the Sun in the form of thermal energy and the solar wind, which drive all dynamical changes in the Earth's eco-system and the space weather due to the coupling of the solar wind with the earth's magnetic field.

A new centre for environmental sciences has been set up at the TIFR Campus at Hyderabad and builds on the present strengths of the National Balloon Facility for making in-situ measurements at high altitudes and heritage of space instrumentation. *It has been already listed among the national environmental observatories under the ISRO-GBP program.* A large number of research themes relevant to our expertise have been planned at the new centre. In this paper I will present the details of the activities which have already begun and those which are in the process.