

# भौतिक अनुसंधान प्रयोगशाला, अहमदाबाद

**Physical Research Laboratory, Ahmedabad** 

https://www.prl.res.in/prl-eng/prlat75

54\_PRL Ka Amrut Vyakhyaan

Wednesday, 10 August 2022

## @ <u>04:00 PM</u> (IST)





## YouTube <u>https://youtu.be/xxnt\_nlkLqc</u>









### 54\_PRL ka Amrut Vyakhyaan

### Title: "Science and the Challenges of Climate Change" Speaker: Mr. Kartikeya Sarabhai

Director, Centre for Environment Education, Ahmedabad

#### On Wednesday, 10 August 2022

#### Abstract

Human activity influencing climate was recognized at the first Earth Summit in 1992 which led to the creation of the United Nations Framework Convention on Climate Change (UNFCCC). Since then, the policy makers have met over 26 COPs and innumerable other policy dialogues to mitigate this emerging challenge. The scientific community via IPCC has played a major role in channelising the work of researchers to better inform policy making processes, by quantifying vulnerabilities and impacts across various sectors. India and developing countries have many unique problems and opportunities, and much more research is needed for their transition towards a sustainable economy. Institutions such as PRL could play a lead role in driving research in universities and research institutions making Indian climate policy making and action programmes much more rooted in data and evidence-based research. It is essential that the research also focuses on strengthening the role of education in developing and implementing policies, as well as promoting behavior change.

#### **The Speaker**

Mr. Kartikeya Sarabhai is one of the world's leading environmental educators and a dedicated community builder. He is the founder director of the Centre for Environment Education (CEE), established in 1984, headquartered in Ahmedabad and with offices across India. Mr. Sarabhai's primary focus is on the greening of India's formal education system, initiatives for biodiversity and climate change and towards education for sustainable development. He was UNESCO Chair on Education for Sustainable Development and the Human Habitat (2014 - 2018). He was a member of the UNESCO Reference Group for the United Nations Decade for Education for Sustainable Development (2005-2014) as well as a member of the International Steering Group for the End of the Decade Conference 2014. He was also on the Advisory Council (2015-2018) of Global Education Monitoring Report (GEM) of UNESCO. He contributed to UNESCO's Education for All Global Monitoring Report for the year 2016, through his paper on 'role of education in sustainable development and climate change mitigation'. He has been actively involved in the projects with UNEP. Under his guidance, CEE was the National Host Institution (NHI) for the UNDP-GEF Small Grants Programme. He played a significant role working with UNESCO during the Decade for Education for Sustainable Development (UNDESD) and thereafter for the Global Action Plan (GAP) on ESD. He has been a member of several Committees set up by the Government of India and other organizations in the fields of environment, wildlife protection and education. He is a member of the Departmental Advisory Board of National Council of Educational Research and Training (NCERT). He is a Trustee of Sabarmati Ashram Preservation and Memorial Trust which manages the conservation programme of the Gandhi Ashram in Ahmedabad. He is the Chair of the Earth Charter International Council. He is the Chair of the Regional Hub of the Monitoring and Evaluating Climate Communication and Education. He has long been associated with IUCN, and was the chair of South and South East Asia IUCN Commission on Education and Communication. He has been a member of Communication, Education and Public Awareness-Informal Advisory Committee of United Nations Convention on Biological Diversity (UNCBD), from India. As a well-known advocate of education for sustainable development, Mr. Sarabhai has actively contributed to the global discussion around the UNDESD and also on India's perspective in the formulation of the SDGs. Currently under his able guidance, CEE has partnered with UNEP to document sustainable handloom traditions of India. Along with this, a roadmap is also being developed for a textile cluster in Surat, India to promote sustainable growth of the textile industries. His work in the field of Environment and Education has earned him numerous accolades and awards. In 2012, the Government of India conferred the prestigious Padma Shri Award on Kartikeya Sarabhai, recognizing his exceptional and distinguished service in the field of Environmental Education. In the year 2013 the International Advertising Association bestowed him with the Olive Green Crusader Award for his contribution to environmental education and education for sustainable development. He is also the recipient of 2016 International Brandwein Medal by Brandwein Institute and the IUCN-CEC in recognition of his lifetime work for inspiring new generations to experience, embrace and love nature first hand. Mr. Sarabhai was educated in Cambridge (Tripos in Natural Science) and went on to do post graduate work in development communication at the Massachusetts Institute of Technology (MIT).



### **About PRL**

The Physical Research Laboratory (PRL), known as the "cradle of space science" in India, is one



of the premier research institutes founded in 1947 by Prof. Vikram Sarabhai, a renowned Cosmic Ray Scientist, a great visionary and institution builder. PRL played a seminal role in producing a highly motivated cadre of space scientists and the technologists of highest international repute. The first scientific rocket launched from Thumba on 21st November-1963 and many other rockets launched thereafter contained payloads developed at PRL. Dr. Sarabhai initiated many of these scientific and technical activities at PRL which eventually led to the formation of the Indian Space Research Organization (ISRO). Therefore, PRL is known as the "cradle of space science" in India. Further, the research in the area

of Plasma Physics expanded to the formation of the Institute of Plasma Research (IPR).

As an institution PRL is unique in that it conducts fundamental research in a wide range of research areas from the Earth to the cosmos, and comprising Astronomy and Astrophysics; Solar Physics; Space and Atmospheric Sciences; Theoretical Physics; Geosciences; Atomic, Molecular and Optical Physics, Astrochemistry; and Planetary Sciences and Space Exploration. PRL is one of the rare research institutes of international repute wherein research in such diverse fields of sciences is carried out using several state-of-the-art experimental facilities that exist under one umbrella.

Along with the ongoing research, several new initiatives have been taken up during the last few years. The Multi-Application Solar Telescope (MAST) at Udaipur Solar Observatory has been operationalized. PRL initiated scientific programmes in frontier areas of research, which include a search for exo-planets, laboratory studies of interstellar grains, laboratory synthesis of cold astromolecules and experimental studies in the field of quantum optics. PRL is also developing several scientific payloads as a part of ISRO's larger vision and contributing to roadmap for competitive scientific exploration of the solar system and beyond. In particular, PRL has been contributing significantly not only in building instruments for space missions, such as Chandrayaan-1, Chandrayaan-2, AstroSat and upcoming Aditya-L1, Chandrayaan-3 and planetary and space missions, but also by bringing out new and insightful science results.

PRL contributes to several national and international research programmes and to human resource development through its Doctoral and Post-Doctoral Programmes, capacity building programmes, such as UN Course on Space Science, and science and engineering internship programmes. PRL contributes significantly to society through its Outreach Programmes by periodically organizing science exhibitions and Open Houses, planned visits of students of various school and college to PRL, and popular talks at various institutions to not only share the excitements of the advancements of contemporary scientific findings but also to encourage students to take up sciences as their research career.







