

IYBSSD2022: What is It About?

The International Year of Basic Sciences for Sustainable Development2022 (IYBSSD2022) is an joint international activity taken up in partnership with UNESCO. This is also an effort to sensitise people as well as the policy makers on the significance of basic science.

The debate is old. Which should be the priority, basic sciences or applied Sciences? Is development good for Earth and humanity? How s one to define development? Can it be at the cost of environment? The list of questions can be endless. Are we transgressing our boundaries and heading towards permanent doom, or is this just a transient phase, given the long age of Earth and millions of years of humans' existence?

When United Nations General assembly deliberated on Agenda 2020 in 2015, they came up with a version incorporating 17 Sustainable Development Goals (SDGs) under the following themes:

- Strengthening the presence and the visibility of women
- Basic sciences as sources of international dialogue and peace
- Science as a global public good
- Innovation and economic development
- Education and human development
- Meeting global challenges

This is not for the first time that conflict between environment and development is being talked about. The pandemic has been a great reminder to the humankind. On one hand, it has helped us realise our vulnerability; on the other it has strongly underlined how important basic sciences are. It reminded of a great life-lesson that understanding the enemy is the first step towards winning over it. Be it prevention by avoiding contact, development of vaccine or care of the patient, it was our basic knowledge about the constitution/ structure, nature, and properties of the virus that enabled us to understand and fight it off.

This is what Michel Spiro, President of IUPAP, had to say, *'It focuses on these links between basic sciences and the Sustainable Development Goals. This is a unique opportunity to convince all stakeholders that through a basic understanding of nature, actions taken will be more effective, for the common good.'*

Many areas of research were considered esoteric in the past, particularly for young nations like India. When India initiated into space research, there was criticism. Many thought that

it was a luxury. Today, when India is not only self-dependent, with no more piggy rides, space science is catering to so many needs in education and communication, weather- and disaster-monitoring but even earning its space endeavours. Vaccines and Defence are some of the other arenas where basic science fuelled the growth of applied sciences. Life without World Wide Web is unthinkable today. But few know that it was a spin-off of pure science research at CERN, Geneva.

We should also not forget the role of basic sciences in supporting applications that promote peace. Hunger, for instance, is among the deadliest enemies of humankind. It leads to migrations, strife, unrest and deaths. Basic progress in the laboratories in domains like genetics, tissue culture and induced mutations by irradiation has helped us to fight it off and become self-sufficient in food.

INSA, as a partner in celebrating the International Year of Basic Sciences for Sustainable Development-2022 (IYBSSD2022), is involved in spreading the message. The opening ceremony of the International Year of Basic Sciences for Sustainable Development, was held at UNESCO Headquarters (Paris) on 8 July 2022. Through its chapters in several states, programmes have been organised for students, scientists, teachers and common people highlighting the significance of basic sciences. The programme will continue to run in 2023 and proposals from willing organisations will be considered with/ without support. Once approved, they will be posted on the international website of IYBSSD2022.

We have to support and promote basic sciences not for the sake of basic sciences but for our own sake as we really need them.