The United Nations Educational, Scientific and Cultural Organization’s (UNESCO) call for celebrating the year 2022 as the ‘International Year of Basic Sciences for Sustainable Development’ (IYBSSD) is an ambitious move and a golden year in the history of science itself, as IYBSSD is aimed at putting a spotlight on the interdependencies and intricacies between basic sciences and the Sustainable Development Goals (UN-SDGs) so that political leaders, policymakers, and even the general public at large will realize the prime significance of basic sciences for global sustainability (Triendl 2000; Griggs et al. 2013; Editorial 2021). While this momentum for global awakening and solidarity brings reason to rejoice, it also warrants retrospection. Exploring the unseen potentialities of basic sciences for furthering the transition towards a healthy planet is indeed a welcome move so that humanity can live in harmony with nature while averting the negative impacts of anthropogenic activities (Dalton 2002) and maximizing the socioeconomic and biocultural benefits for a good quality of life and human wellbeing. It will also help us to learn new norms in the wake of pandemics like COVID-19 (Lin et al. 2021). However, it is also a matter of retrospection that even with the exponential advancement in science and technology (thanks to modern technology, we are now venturing into outer space and planets), human curiosity and ingenuity failed to understand the resilience and carrying capacity of our own planet and how the ongoing alterations in nature and natural processes are going to affect our own survival. As echoed by scientists across the globe (Seitzinger 2010; Griggs et al. 2013; Foley 2017), planet Earth is at a crossroads and our actions during this decade will determine the future of the rest of the species. Hence, it is the prime time to harness the immense potential of basic sciences like ecology for sustainable development.

While technology can offer solutions to most of the challenges (Triendl 2000; Dalton 2002; Editorial 2021), technological advancements alone are not enough to solve all of the ecological and environmental crises we are facing today. Positive attitudes and behavioural changes are more important than ever in order to effectively use the power of sustainable technologies to address ongoing planetary crises (Priyadarshini et al. 2022). Hence, repositioning the basic sciences as a better and more effective means of advancing sustainable development is critical for reducing our carbon footprint while resetting a more respectful and sensitive relationship with nature (Seitzinger 2010; Editorial 2021). The present editorial briefly outlines the significance of ecology for facilitating the transitions towards a greener, cleaner, and more resilient planet and its unexplored potential for reconnecting and reinforcing humans’ relationship with nature in the Anthropocene.

Ecology, the "study of the relationships between living organisms, including humans, and their physical environment" (http://www.esa.org), wrought by the legacies of the pioneer ecologists during the last few centuries, is believed to be a comparatively new discipline (http://www.oxfordbibliographies.com). For a modern biology student, the origin of ‘Ecology’ as a systematic and scientific discipline can be traced back to the monumental works of Carl Linnaeus, Alexander von Humboldt, and many others, whereas for a science historian, the origin can even be linked to the classical botanical works of Theophrastus in 348 BC (http://www.britannica.com). However, Ecology is one of the oldest scientific disciplines, as old as humanity and gradually evolving with human civilization. Humanity thrived on this planet primarily because of their ecological knowledge (Odum 1977; Kormondy 2012) and their intricate associations with nature, which started during the cave-dwelling period onwards. Even before the origin of Homo sapiens, early hominids might have had thorough ecological knowledge regarding their surrounding environment: knowledge about the best time to hunt, to distinguish edible and non-edible commodities, to recognize the medicinal and curative properties of plants, the seasonal responses of plants and...
animals, and many other vital pieces of information (Kor- 
mondy 2012). Hence, we argue that ecological knowledge 
was one of the prime pieces of knowledge acquired by homi-
roids over the evolutionary period. However, with the advent 
of modern science and technology, humanity detached from
nature and started the mindless exploitation of nature.

Thanks to major contributions from all other disciplines, 
ecology has now emerged as a major discipline with various
full-fledged branches in both basic and applied domains. As
we illustrated in Fig. 1, the applications of various branches
of ecology are enormous and essential for maintaining the
resilience of our planet. For instance, learning ecological
principles is not only imperative to understand the strictures
and functions of various ecosystems, but also to understand
the homeostasis of the entire biosphere. Hence, now is the
time to embrace ecological principles in order to protect
our ecosystems from further damage and reset our relation-
ship with nature. It is also time to revamp our academic
curriculums (both School and University curriculums) to
address ongoing ecological and environmental challenges.
Specialized knowledge in ecology can be introduced into the
existing curricula using either a diffusion model (diffusing
such knowledge directly into the concerned subjects) or an
infusion model (infusing all such knowledge into a special,
separate subject) and also through regular field visits and
experiential learning (Priyadarshini and Abhilash 2020).

Leading ecological societies like the Ecological Society
of America (ESA), the British Ecological Society (BES),
the Society for Ecological Restoration (SER), the Interna-
tional Society for Tropical Ecology (ISTE) etc., can take
the lead and frame model curriculums and short courses for
students and can conduct special awareness programs for
policymakers and the general public. Similarly, UN organi-
izations like the United Nations Environment Programme
(UNEP), the United Nations Development Programme
(UNDP), the Intergovernmental Science-Policy Platform
on Biodiversity and Ecosystem Services (IPBES), etc., and
international Non-Governmental Organizations (NGOs)
working in the realm of nature conservation like the Interna-
tional Union for Conservation of Nature (IUCN), the World
Wide Fund for Nature (WWF), etc., can also start special
programs for furthering this movement. Botanic Gardens,
Zoos, and National Parks can also provide students and the
general public with special awareness trips and experiential
learning opportunities. Let us learn ecology for sustainable
development and living in harmony with nature.

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