



## Linking biodiversity to economy- a much needed step towards conservation

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According to the United Nations Food and Agriculture Organization, biological resources account for 40% of the global economy (Gitz et al.2016). Biodiversity is the variability of different life forms in genetic, species or at ecosystem levels (Silvert 2006) and is important for providing a smooth and stable functioning of all macro and micro level processes at different scales throughout the earth (Ibisch et al.2010). From this, if any one component is disturbed or removed it impacts the whole ecosystem and its other components. It is like a chain process wherein each component has an interconnection with another component giving rise to a complex web. Not only there is an impact upon the food chain but also on the species behaviour, ecology, and different patterns and processes (He et al. 2013). Maintaining biodiversity is crucial for the various ecosystem services viz., organic waste disposal, soil formation, biological nitrogen fixation, crop and livestock genetics, biological pest control, plant pollination, pharmaceuticals, food industry dependent on pollinators like Bees, and also for preventing the spreading of diseases (Pimentel et al. 1997).

India being a developing country with a rich biodiversity and where millions of people among the struggling communities directly or indirectly depend on nature and its resources for their day-to-day livelihoods (Khoshoo & T. N. 1994). Ecosystems with high biodiversity are a major potent in food, fuel, medications, and other things. People utilise these natural resources for their own benefit as well as a source of revenue (Shaw 2018). The poor rely significantly on biodiversity for subsistence, and in some cases, biodiversity protection can be a means of escaping poverty (Billé et al. 2012); the activity of a diversified natural biota is required for both excellent agricultural output and human health. Biodiversity remains poorly measured and demonstrated, with many changes occurring subtly on timescales that are not immediately evident to the vast majority; biodiversity conservation and poverty reduction are two global challenges that are linked (Billé et al. 2012)

The Millennium Ecosystem Assessment in 2005 was the first global initiative to investigate the linkages between human well-being and biodiversity (Gaglio 2018). This assessment



discovered that biodiversity improves societies in material welfare, community security, local economy resilience, intergroup relations in communities, and human health. It also highlighted the phrase "ecosystem services" in four major areas (Morton & Hill 2014) - provisioning services, controlling services, ancillary services, Cultural services, such as spiritual and recreational advantages.

Biodiversity is crucial, particularly the development of natural areas, are generating a species extinction rate 1,000 to 10,000 times the natural rate, which is critical for the sustainable functioning of the agricultural, forest, and natural ecosystems on which humans rely (Singh 2002). Extinction of any species results in the irrevocable loss of a portion of the Earth's biological richness (Barbier et al. 2019). Biodiversity as a means of subsistence and income to the poor can tend to solve many major challenges in the modern day developing countries (Menzel & Bögeholz 2009). Indian economy is made up of the service sector, agriculture sector and manufacturing sector distributed across the length and breadth of the country (Chakraborty & Nunnenkamp 2008). Biodiversity and natural resources constitutes the backbone of all sectors of the economy of our nation (Kim et al. 2006). This Dependency on the nature is an indirect threat risking the potential existence of the pristine untouched biodiversity thereby altering the environmental processes and opening major challenges towards wildlife conservation by exploiting the habitat and natural resources (Koziell2001). So, the question arises now that, how we can balance our dependency as well as exploitation. This is a major trouble for the present day conservationists.

Economic bureaucrats focus on the economic benefits and developments needed to efficiently sustain human lives globally, this in turn neglects the intricate value of biodiversity makes our dependency resorted towards exploitation (Prugh et al. 1999).The solution to this major challenge is communication, Communicating with the different sectors and their leaders and highlighting the importance of biodiversity in our day to day lives and human development (Deneulin & Shahani2009). Educating and making people aware can drive people towards thinking ways of eco-development, considering both the ecosystem and human development altogether, Awareness is the major key to any such situation wherein we need to protect the intricate natural resources that we are blessed with. Educating the local tribes, policy makers, Diplomats, laymen about the importance of biodiversity and their indirect economic benefits can solve this problem. People gain from healthy ecosystems in terms of economic and other benefits, and it is only then that their long-term survival becomes assured.



As stated in the World Summit on Sustainable Development Implementation Plan, sustainable use is also an effective instrument for combating poverty and, as a result, achieving sustainable development (Omer 2008). A significant shift in perception can aid in the restoration and protection of biodiversity (Buijs 2009). It entails restoring vegetation along watercourses and reintroducing natural links into the environment so that when species begin to move and respond to climate change, they have a place to go.

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