

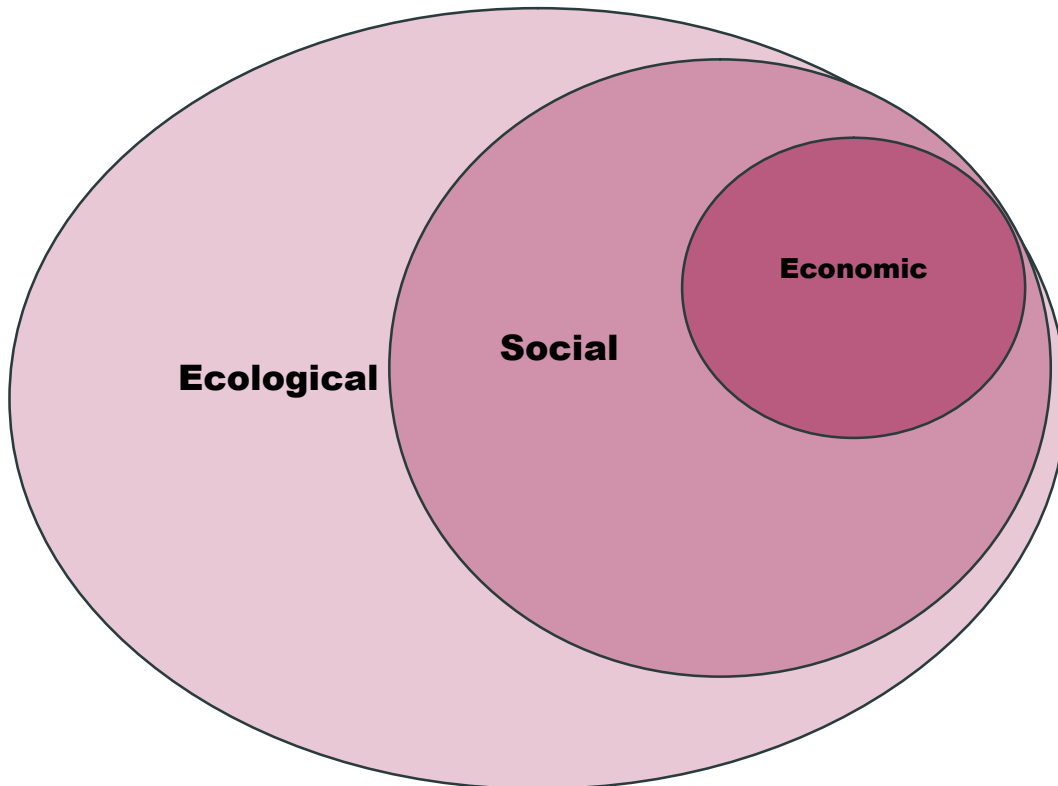
**EDUPHORE IAS****WEEKLY CURRENT AFFAIRS****A Model for Sustainable Development**

Over the last 50 years, the global economy has grown nearly fivefold. On average prosperity has also doubled. However about 1.3 billion people remain poor and some 700 million are hungry. This number of vulnerable sections are expected to rise. Inequality between and among countries will also increase. How is this growth sustainable? Is it a fair trade off?

## **SUSTAINABLE DEVELOPMENT - CONCEPT**

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.



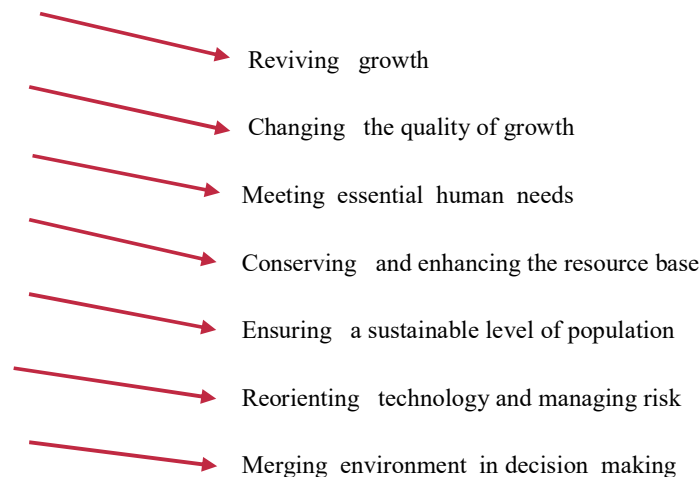
### **Three pillars of Sustainable Development**

- The connections between the economic, social and ecological systems are seen as three concentric circles. It conveys the dependence of the economic on the social and ecological, and of the social on the ecological.
- It follows that the sustainability of the economic system, which influences nature, and the type and speed of “development” are dependent on the sustainability of the ecological system, with the social systems (such as institutions and processes defining rights and responsibilities) “mediating” the bidirectional flows between ecological and economic systems.

## Rationale for Sustainable Development

- The satisfaction of human needs and aspirations is the major objective of development. The essential needs of vast numbers of people in developing countries for food, clothing, shelter, jobs - are not being met, and beyond their basic needs these people have legitimate aspirations for an improved quality of life.
- Sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life.
- Living standards that go beyond the basic minimum are sustainable only if consumption standards everywhere have regard for long-term sustainability.
- Inter-generational equity

## Critical objectives for environment and development policies that follow from the concept of sustainable development

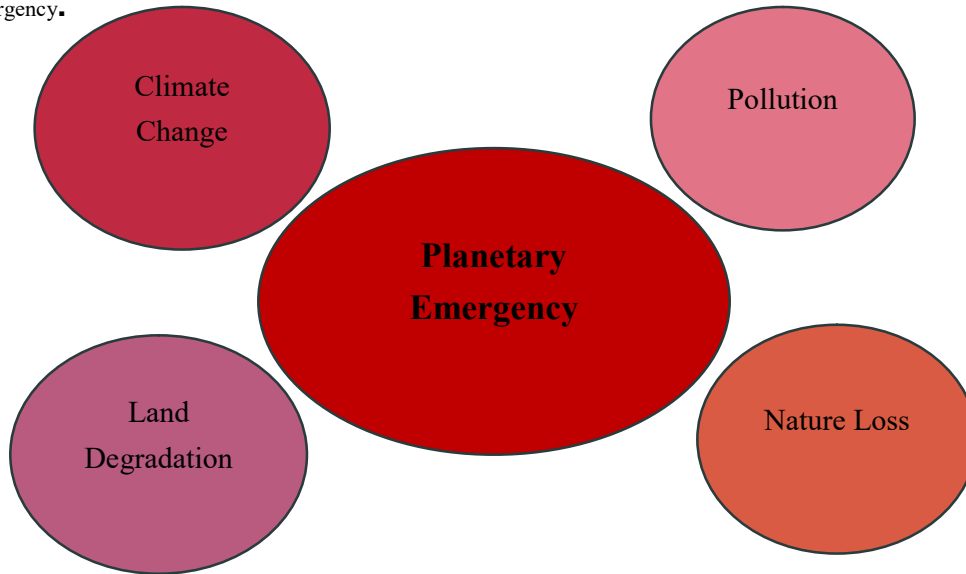


## Why the current model of development is unsustainable?

- The current development model is “unequal and resource-intensive” model of development.
  - It is deriving environmental decline through climate change, biodiversity loss and other forms of pollution and resource degradation
  - Social, economic and financial systems fail to account for the essential benefits society gets from nature.
  - It does not provide incentives to manage the environment wisely and maintain its value.
  - Rising vulnerability, inequality.
  - According to UN Report ‘Making Peace with Nature’, the present model of development is giving rise to Planetary emergency.
- Society is not on course to fulfil the Paris Agreement to limit global warming to well below 2°C above pre-industrial levels and to pursue efforts to further limit the temperature increase to 1.5°C.
  - At the current rate, warming will reach 1.5°C by around 2040 and possibly earlier. Taken together, current national policies to reduce greenhouse gas emissions put the world on a pathway to warming of at least 3°C by 2100.
  - Human-induced current warming of more than 1°C has already led to shifts in climate zones, changes in precipitation patterns, melting of ice sheets and glaciers, accelerating sea level rise and more frequent and more intense extreme events, threatening people and nature.

## Planetary Emergency

Three environmental crises — climate change; nature loss; and the pollution of air, soil and water — add up to a planetary emergency.



- These are the three self-inflicted planetary crises
- These are closely interconnected and put the well-being of current and future generations at unacceptable risk.
- The path of sustainable development goes through tacking these interlinked crisis by transforming the present systems.

### Facts corroborating the given stance of Crisis

- World is headed for global warming of more than 3°C this century.
- The per capita stock of natural capital (resources and services nature provides to humanity) has fallen by 40% in just over two decades.
- 9 out of 10 people world wide breathe polluted air.

## SDGs achievement threatened by Planetary Emergency

- The burden of environmental falls most heavily on the poor and vulnerable. Wealthy countries export some of the impacts of their consumption and production to poorer nations through trade and waste disposal.
- Environmental change is undermining progress on ending poverty and hunger, providing clean water and sanitation, reducing inequalities and promoting sustainable economic growth, work for all and peaceful and inclusive societies.
- It threatens the achievement of health and well-being for all Environmental risks such as heatwaves, flooding, drought and pollution hamper efforts to make cities and other human settlements inclusive, safe, resilient and sustainable.

# Environmental degradation threatens the achievement of the SDGs

## Impeding poverty elimination, inequity reduction, economic development and peace

- ▶ Exacerbated multi-dimensional poverty
- ▶ Accentuated inequality, including gender inequality
- ▶ Lost income opportunities
- ▶ Increased risk of conflict over resources
- ▶ Increased risk of displacement and outmigration

## Threatening human health

- ▶ Increased undernutrition, heat stress and air pollution-related diseases
- ▶ Exacerbated food- and water-borne infections and zoonotic diseases
- ▶ Reduced ability of nature to provide medicines and support physical and mental well-being

## Hampering efforts to make cities and communities sustainable

- ▶ Increased vulnerability to natural disasters
- ▶ Stresses on urban infrastructure
- ▶ Rising air and water pollution
- ▶ Rising waste disposal problems

## Weakening food and water security

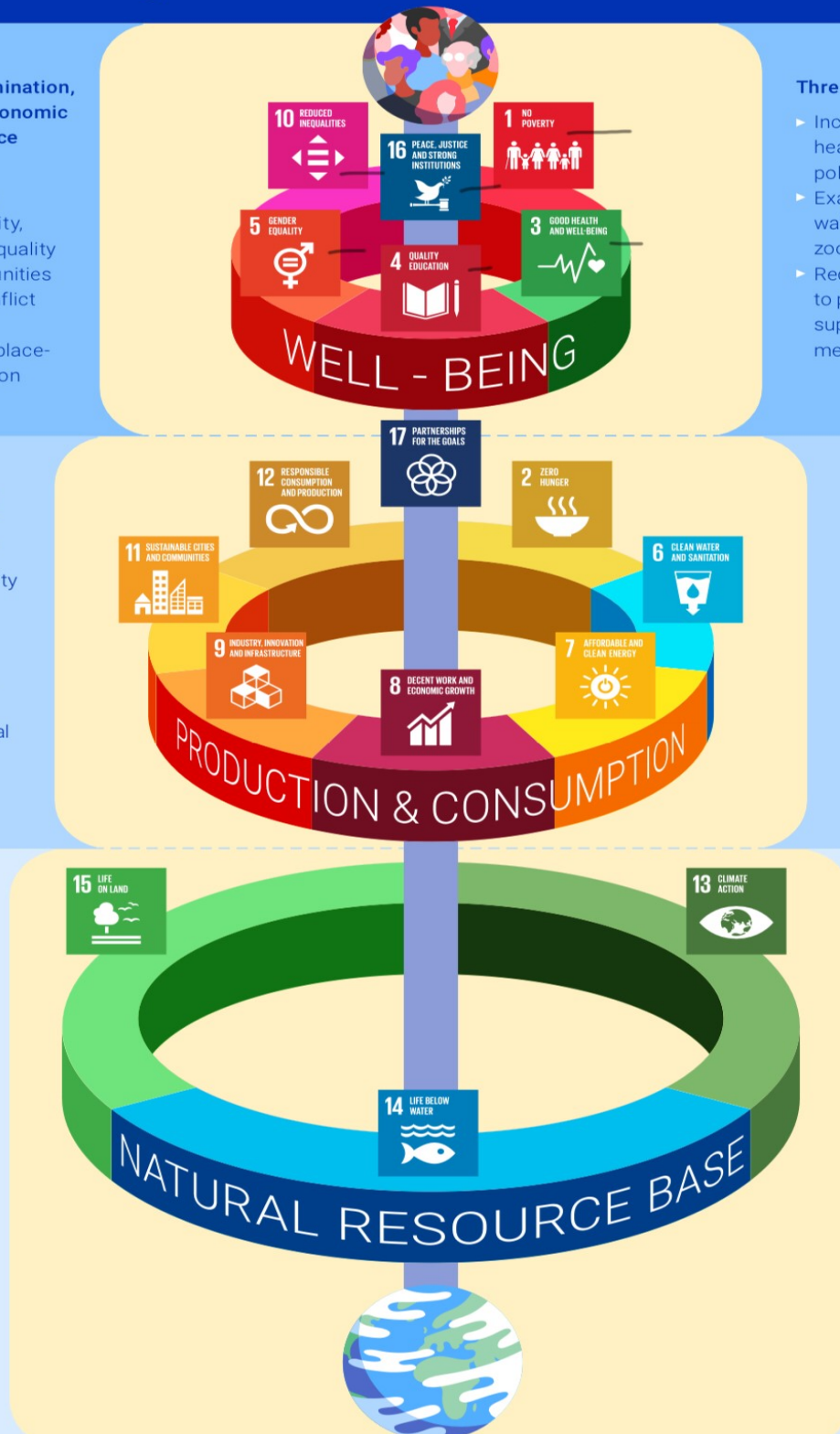
- ▶ Increased food-system vulnerability
- ▶ Reduced agricultural productivity
- ▶ Reduced nutritional value of crops
- ▶ Lower catch in fisheries
- ▶ Increased water scarcity

## Changing climate

- ▶ Higher temperatures
- ▶ More extreme weather events, e.g. flooding, droughts, storm surges and heatwaves
- ▶ Rising sea level
- ▶ Changing precipitation patterns
- ▶ Ocean acidification

## Biodiversity loss and ecosystem degradation

- ▶ Loss of species richness and accelerated species extinction
- ▶ Loss of genetic resources in domestic and wild species
- ▶ Loss of ecosystem functions, such as pollination, seed dispersal, soil formation and biological productivity



Source: UN Report 'Making Peace with Nature'

# Key to sustainable future : Transforming humankind's relationship with nature

<b>Global warming</b>	<ul style="list-style-type: none"><li>• Rapid implementation and a significant strengthening of pledges under the Paris Agreement.</li><li>• Global South needs increased access to low-interest finance to build its capacity and overhaul accounting systems and policy frameworks in pursuit of the SDGs.</li></ul>
<b>Transformation for Biodiversity conservation</b>	<ul style="list-style-type: none"><li>• Providing space dedicated for nature</li><li>• Addressing drivers such as changing land and sea use, overexploitation, climate change, pollution and invasive alien species.</li></ul>
<b>Chemicals and waste effects</b>	<ul style="list-style-type: none"><li>• Implementing existing international chemicals conventions</li></ul>
<b>Transforming economic and financial system</b>	<ul style="list-style-type: none"><li>• Governments should incorporate full natural capital accounting into their decision-making and use policies to provide incentives for businesses to do the same.</li><li>• Yardsticks such as inclusive wealth (the sum of produced, natural, human and social capital) provide a better basis for investment decisions than gross domestic product, as they reflect the capacity of current and future generations to achieve and sustain higher living standards.</li><li>• Governments should shift away from environmentally harmful subsidies, invest in low-carbon and nature-friendly solutions and technologies.</li><li>• Shifting taxation from production and labour to resource use and waste promotes a</li></ul>

	<p>circular economy. Potential inequalities resulting from this shift can be offset through social safety nets.</p>
<p><b>Transforming Food, water and energy systems</b></p>	<ul style="list-style-type: none"> <li>• Small-scale farmers, especially women farmers, are central to the challenge of food and nutrition security and must be empowered.</li> <li>• Changes in global patterns of consumption are critical. This envisages reducing food waste and changing dietary choices and consumer behaviour in high-income countries.</li> <li>• Sustainable harvesting approaches to fisheries management, improve spatial planning and address threats such as climate change, ocean acidification and pollution.</li> <li>• Cross-sectoral and sector-specific interventions at the watershed or river basin scale. This can be achieved by simultaneously increasing water-use efficiency, wisely expanding storage, reducing pollution, improving water quality, minimizing disruption and fostering the restoration of natural habitats and flow regimes.</li> <li>• Clean energy</li> </ul>

### **A Special Focus on ‘Biodiversity’**

- One million of the world’s estimated 8 million species of plants and animals are threatened with extinction. Ecosystems are degrading at an unprecedented rate, driven by land-use change, exploitation, climate change, pollution and invasive alien species.
- At the global level, only six of the 20 Aichi targets have been partially achieved, including increases in the proportion of land and oceans designated as protected areas and improved international financial flows to developing countries.

## **Biodiversity-focused Development Model for India**

1. Shift from “exclusionary” models of conservation and economic development to socially just and inclusive models with participation of local communities. **The adoption of the 4-Cs (connections, conditions, capabilities and cross-cutting constituent) framework** is the way forward. Wide-ranging consultations and engagements among citizens, statutory bodies representing them at different levels, and the executive arms of government, are required.
2. Moving away from intensive agriculture to **biodiversity-based agriculture** to sustain agriculture, ensure nutrition and make agriculture less vulnerable to climate change. Foregrounding the **biodiversity in and around farms (BIAF)** is the means to enhance agricultural productivity, restore soils, and enhance rural livelihoods.
3. To combat of zoonotic diseases such as COVID-19, **One Health framework** needs to made operational. Inter-sectoral collaboration is a necessity for operationalising One Health approach as there is need for coordination for the surveillance, research, and data sharing and within and across multiple institutions.
4. **Investments towards ecological restoration in the rural areas can serve as a source of sustained livelihood opportunities and other co-benefits** such as meeting the targets pledged by India in international fora on restoration of degraded land.

## **Everyone has a part to play in the transformation towards Sustainable Development Model**

1. Governments initiate and lead in intergovernmental cooperation, policies and legislation that transform society and the economy.
2. Such transformations enable the private sector, financial institutions, labour organizations, scientific and educational bodies and media as well as households and civil society groups to initiate and lead transformations in their domains.
3. Individuals can facilitate transformation by, for instance, exercising their voting and civic rights, changing their diets and travel habits, avoiding waste of food and resources, and reducing their consumption of water and energy. They can also promote behavioural change by raising awareness in their communities.