

# THE STUDY OF THE PROBLEM OF SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE

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## **Abstract:**

The primary drivers of climate change and habitat loss of exotic invasive species include unsustainable agriculture, deforestation, unsustainable production, and trade. Rapid action is needed to reduce the risk of mainstream extinction of critically endangered species in agriculture, industry, trade, and other sectors. Decay is affecting one-fifth of the total land area on Earth and the lives of one billion people. Between 2000 and 2015, 20 percent of the Earth's total land area was lost, resulting in a significant loss of essential services for human well-being. In all regions except Europe, North America, North Africa, and Western Asia, soil erosion covers 22.4 percent to 35.5 percent of the land area, directly affecting the lives of more than a billion people. Global trends in land cover indicate a net loss in natural and semi-natural sections of land due to large-scale human-induced processes including desertification, deforestation, improper soil management, crop expansion, and urbanization. Accelerating the progress of conservation of key biodiversity areas is essential to meet the Sustainable Development Goal 2030. This research paper has been written to find the answer to the question that what is the Contribution of Government in sustainable development, what is the importance of sustainable development for human life, what is coexistence of economic development and environmental protection, what are the relationship between sustainable development, urban planning, and environmental protection.

**Keywords:** Sustainable Development, Climate change, Pollution, Environmental protection

## **Data Collection Method Used for Research:**

This research depends on secondary data like books, magazines, newspapers, reports, and websites.

## **The Objective of Research:**

- 1) To study the Contribution of Government in sustainable development
- 2) To study how is Sustainable Development important for a human life.
- 3) To acquire knowledge about the coexistence of economic development and environmental protection
- 4) To Find out about the relationship between sustainable development, urban planning, and environmental protection

## **Introduction:**

Countries are developing disaster risk reduction strategies given increasing climate threats. Climate change is already increasing disaster risk. The Sendai Framework for Disaster Risk Reduction 2015-2030 outlines clear goals and priorities for action to prevent new disaster risks and reduce existing risks. Its adoption has led many countries to develop and implement national and local disaster risk reduction strategies in line with the Sendai Framework by 2020. Of the latest reports (2017-2018) from 70 countries, 67 countries found strategies that were somewhat aligned with the Sendai Framework. Many local governments developed local strategies in line with national strategies.

It is necessary to take immediate action to combat climate change and its effects. Climate change is the defining issue of our times and the biggest challenge to sustainable development. It is necessary to limit global warming to 1.5°C to avoid catastrophic consequences and irreversible changes. This will require rapid and far-reaching changes in energy, land and urban infrastructure, and industrial systems. Although many countries have taken positive steps to tackle climate change by increasing funding to tackle climate change by setting nationally determined contributions (NDCs), there is still a need for more ambitious plans and unprecedented changes in all aspects of society. There is a need to strengthen access, flexibility, and adaptive capacity to finance, especially in underdeveloped countries and developing small island states. Avoiding the ill effects of climate change will require unprecedented change at all levels of society.

Many developing countries have initiated a mechanism to create and implement National Adaptation Plans (NAPs) to reduce their vulnerability to climate change and to integrate climate change adaptation into the national development plan. These plans will help all countries to achieve the global target on adaptation under the Paris Agreement i.e., in terms of enhancing adaptability, strengthening deterrence and reducing vulnerability to climate change. Technical guidance and assistance to developing countries for National Adaptation Plans (NAPs) is provided by the Expert Group on Least Developed Countries and other constituted bodies under the United Nations Framework Convention on Climate Change.

Sustainable and protected use of oceans, seas, and marine resources is essential for sustainable development. The oceans generate about half of the total oxygen inhaled by humans and act as a climate regulator. They absorb atmospheric warming and more than a quarter of the carbon dioxide emitted by humans. However, decades of increasing carbon emissions have increased ocean warming and changed their chemical composition. Adverse effects resulting from ocean acidification, climate change (including sea-level rise), extreme weather events, coastal erosion, overfishing, pollution, and habitat degradation by continuing threats to marine and coastal resources (which currently exist) has been further enhanced. Protected areas, policies, and treaties that encourage the responsible extraction of ocean resources are critical to countering these threats.

### **The Study of The Problem of Sustainable Development and Climate Change:**

In various cities of India, where the problem of environmental pollution is increasing continuously, indiscriminate felling of trees in the name of developmental activity seems to be a contradictory step. The truth is that the concept of sustainable development without a clean environment is dishonest. Trees are a primary component for proper development. The tree is the link that serves to connect the physical world and the natural world. It is very important for carbon sequestration, production of solar energy, providing a variety of materials for the physical world, as well as for the food chain and biodiversity. Therefore, for sustainable development, along with other components of the environment, the conservation of trees is also essential.

Environmental protection and development are often considered to be different, even at times opposed to each other. But the truth is that without bringing these together it is very difficult to meet the current environmental and economic challenges. It is rarely seen that the potential environmental aspects of developmental projects are considered with sufficient sensitivity before they are passed. Environmental impact assessment has been adopted in India only in the year 2006. In addition, the National Green Tribunal (NGT) and the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) are also in existence. Despite this, developmental projects are being taken up with a one-sided approach. The National Green Tribunal (NGT) has been constituted in the year 2010 under the National Green Tribunal Act, 2010. It is a specialized body equipped with the necessary expertise to resolve environmental disputes involving multi-disciplinary problems. This Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908 but is guided by the principles of natural justice. It is established for the effective and speedy disposal of matters relating to the protection of the environment and the protection of forests and other natural resources, including the enforcement of any legal rights relating to the environment and the granting of aid and compensation for damages to persons and property, or matters connected therewith, made for settlement.

Sustainable development requires the promotion of peaceful and inclusive societies, access to justice for all, and the creation of effective, accountable, and inclusive institutions at every level. Millions of people are deprived of their security, rights, and opportunities, while attacks on human rights activists and journalists are hindering development. Most countries have failed to frame laws and regulations to address human rights abuses and promote more open and just societies. Much work needs to be done to ensure that these systems are implemented properly. Conflict and other forms of violence are a hindrance to sustainable development. In 2018, the number of people displaced by war, persecution, and conflict exceeded 70 million, the highest number of people displaced in 70 years in the history of the United Nations High Commission for Refugees. All of these people are vulnerable to various forms of abuse, including trafficking, violence, and non-inclusive judgments. To ensure that such people receive adequate protection, achieving the goals of inclusive societies and sustainable development is paramount.

Climate-related financial flows have increased but this increase is insufficient given the scale of the problem and is still fueled by investments in fossil fuels. There has been an increase in climate-related financial flows globally, with much of the money devoted to curbing greenhouse gas emissions. The third biennial assessment by the United Nations Climate Change Secretariat Standing Committee on Finance shows a 17 percent increase in global climate finance from 2013-2014 to 2015-2016. The growth spurt from 2014-2015 was largely driven by high levels of new private investment in renewable energy, the largest segment of the global total. Although these financial flows are substantial, they are relatively insufficient about the scale of the problem and broader trends in global investment. In addition to investment in climate, activities are still influenced by fossil fuels (\$781 billion in 2016). Most countries are making plans to increase their capacity and resistance to climate change.

Atmospheric carbon dioxide concentration reached 405.5 parts per million (ppm) in 2017 (up from 400.1 ppm in 2015), which is 146 percent of pre-industrial levels. Limiting global warming to 1.5 °C means reducing emissions as quickly as possible, which will require a rapid reduction in the future. Global carbon emissions will have to be reduced by 45 percent from 2010 levels by 2030 and there will be a sustained effort to achieve net-zero emissions by 2050. As of May 2019, 186 parties have ratified the Paris Agreement. N.D.C. from the parties under the Agreement. It is expected to set, communicate and maintain (including goals, policies, and actions planned in response to climate change). Also, 183 parties (182 countries and the European Union) signed their first NDCs to the United Nations Framework Convention on Climate Change Secretariat., and one team submitted its second N.D.C. was presented to. Parties have been requested to submit their existing NDCs. Update or be notified of new contributions by 2020. To achieve the objectives by the year 2030, all countries have to implement their new NDCs. More focus will be required to decide.

Ground-based pollutants and marine debris are harmful to coastal habitats, but improvements in water quality are possible. Coastal areas around the world are affected by land-based pollutants including sewage and nutrient runoff, leading to coastal eutrophication, degradation of water quality, and loss of coastal marine ecosystems. The Clean Water Indicator is a measure of the level of ocean pollution that shows that water quality challenges exist everywhere but are most acute in some equatorial regions, notably parts of Asia, Africa, and Central America. An analysis of trends from 2012 to 2018 shows that positive change is indeed possible. In the same period, 104 out of 220 coastal areas have improved the quality of their coastal waters. Such reforms require policy commitments that combine with global commitments to reduce chemical and nutrient runoff and plastic debris from wastewater treatment and agricultural sources.

Increasing acidification is harming marine life, hindering the ocean's role in balancing climate change. The use of atmospheric carbon dioxide by the ocean alters the carbonate properties of seawater by altering its chemical composition, resulting in a change in the pH of the water. levels (and this increases ocean acidification) decrease. At current rates of carbon dioxide emissions, ocean acidity is projected to increase by 100 to 150 percent by the end of this century. Ocean acidification threatens ecosystem services including fisheries, aquaculture, fauna as well as food security. It also affects coastal protection (weakening coral reefs to shield the coastline), transportation, and tourism, as ocean acidity increases, reducing its ability to absorb carbon dioxide from the atmosphere., thereby hindering the role of the ocean in balancing climate change.

The extent of marine protected areas has doubled since 2010, but more efforts are needed to protect key

biodiversity areas. Protected areas play an important role in sustainable development if they are effectively managed and located in areas important to biodiversity. As of December 2018, 17 percent of the water frontier area under national jurisdiction was under protected areas. The average percentage of Marine Key Biodiversity Areas (KBAs) covered by protected areas also increased from 31.2 percent in 2000 to 45.7 percent in 2018. Despite this progress, the pace at which key biodiversity areas are being protected has slowed, and if the current trend continues, these areas will flatten by 2030. Further efforts are needed to establish new marine protected areas and strengthen the management of existing areas.

The decline in fish stocks appears to be stabilizing, with the need to restore them, especially in severely depleted areas. Fish stocks must be managed within biologically sustainable levels to safeguard health and productivity in fisheries. Overfishing not only reduces food production but also disrupts the functioning of ecosystems and reduces biodiversity with negative consequences for the economy and society. The proportion of marine fish stocks within biologically sustainable levels declined from 90 percent in 1974 to 67 percent in 2015. However, this declining trend has stabilized since 2008, which is an encouraging sign. In contrast, the East-Central Pacific and Northeast Pacific had the highest proportion of fish stocks at biologically sustainable levels (above 85 percent). More focused efforts are needed to rebuild overfished reserves, especially in severely depleted areas.

It is necessary to try to prevent the increasing loss of terrestrial ecosystems, protected forests, land degradation, and biodiversity that promote sustainable use. Human activities are continuously destroying the ecosystems on which all species depend. Although the rate of degradation of forests is slow it continues at an alarming rate. According to a recent United Nations report, one million plant and animal species are at risk of extinction and an estimated 20 percent of the Earth's total area was lost between 2000 and 2015. Given the gravity of the situation, immediate action and a fundamental transformation in our relationship with the earth are needed to prevent biodiversity loss and protect ecosystems for the benefit of all.

The acute level of biodiversity loss demands an emergency response. Global biodiversity loss is occurring at a rapid rate, taking us closer to unknown and irreversible changes in Earth's ecosystems. According to the Red List Index, which monitors available data on more than 20,000 species of mammals, birds, amphibians, coral, and cycads, the species' extinction risk has risen to nearly 10 percent over the past 25 years.

Protecting Key Areas (KBAs) for terrestrial, freshwater, and mountain biodiversity are essential to ensure long-term and sustainable use of natural resources. The global average percentage of areas important for terrestrial, freshwater, and mountain biodiversity covered by protected areas increased by more than 10 percentage points between 2000 and 2010. However, from 2010 to 2018, the cover has increased by only two to three percentage points. At the current rate, by 2030, an average of less than 50 percent of each biodiversity-critical area will be covered by globally protected areas.

Mountain ecosystems provide essential environmental services, but their status varies widely from region to region.

The positive impact of mountainous green cover (by forests, grasslands/shrubs, and fields) is primarily related to the health status of mountains and consequently their ability to fulfill the role of ecosystems themselves. A global baseline of green cover of mountainous regions has been established using 2017 data. Globally, 76 percent of mountainous areas were covered by vegetation that year. Oceania covered almost all mountainous regions, while North Africa and Western Asia accounted for only 60 percent.

Forest area is still decreasing, but the rate of its reduction is slow. Between 2000 and 2015, forest cover as a share of the total land area declined from 31.1 percent to 30.7 percent. The damage is most severe in tropical regions, with widespread declines in Latin America and sub-Saharan Africa. The loss of forests in some tropical regions has been partially balanced by increased forest cover in many parts of Asia, as well as in Europe and North America. As a result, the net annual rate of forest loss from 2010 to 2015 was about 25 percent slower than from 2000 to 2005. Furthermore, the proportion of forests and protected forest areas under long-term management plans has remained stable or increased in all areas of the world.

International agreements are developing new approaches to biodiversity conservation. Countries are making progress by adopting a framework that promotes the conservation and sustainable use of genetic resources and biodiversity through sharing of benefits. As of February 1, 2019, the Nagoya Protocol on access to



genetic resources and fair and equitable sharing of benefits derived from their use was ratified by 116 Contracting Parties, including the European Union (an increase of 65 percent from 2016 in approvals). On the same date, 61 parties also approved the Access and Benefits Sharing (ABS) frameworks and related information was published in the Access and Benefits Sharing Distribution Center (up from 6 in 2016).

### Conclusion:

Climate change should be recognized as a global collective action problem. We need to keep climate change and global warming at the top of our foreign policy agenda. India should not look at climate change adaptation as a single technology transformation. Instead, in this context, questions like employment, energy, and pollution should be considered. In the last few decades, the irregularities of floods, droughts, and rains, etc. have increased significantly. All this is happening as a result of climate change. In some places, there is a lot of rainfall, while in some places there is a possibility of drought due to lack of water. To enjoy economic development, we must give special importance to the conservation of environmental resources. It is very important to establish a balance between the balance of environment and economic development, not only will we be able to enjoy the progress achieved in this way, but our future generations will also benefit from it. For sustainable development, we need to seriously consider the issues of climate change.

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