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STUDY GUIDE

Assessing whether states should prioritize environmental protection over economic growth, particularly in developing countries facing poverty, industrialization, and development pressures.

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1. Letter by the Secretary-General

Dear Delegates,

Welcome to HASMUN'26 our 15th year of leadership, growth, and unforgettable moments.

For fifteen years, HASMUN has been more than just a conference. It has been a place where ideas are challenged, voices are discovered, and individuals grow into leaders. And now, you are a part of that legacy.

Each of you is stepping into a space where your words matter. Where your perspective can shape discussions, influence outcomes, and inspire others. This is not about being perfect it is about being present, prepared, and willing to engage.

As you go through your study guides, remember that they are not just documents. They are your starting point. Go beyond them. Question more. Think deeper. Speak with purpose.
Because what you build here will not only define your experience at HASMUN — it will stay with you long after the conference ends.
This year marks our 15th edition. And that means something.

It means tradition.
It means excellence.
It means responsibility.

And now, it means you.

I look forward to witnessing your journey, your growth, and the impact you will create.

Welcome home.

Nazrin Sadigova
Secretary General
HASMUN'26 | XV Years of Leadership, XV Years of Excellence

2. Letter by the Under-Secretary-General and the Academic Assistant

Dear Delegates,

As the Committee Board of the UNEP committee, we welcome you to the committee with immense gratitude for the 5th official session of HASMUN, HASMUN'26.

We are Bengs İlban, a senior student from Bahçeşehir University with double bachelor's degrees in English Language Teaching and Sociology; Barış Yavaş doing double major with Public Relations and International Relations and Political Science. We are pleased to serve you as your Committee Board. Our agenda item, Assessing Whether States Should Prioritize Environmental Protection Over Economic Growth, Particularly in Developing Countries Facing Poverty, Industrialization, and Development Pressures and the committee itself are crucial regarding the daily global challenges we observe. We have tried our best to prepare a beneficial guide for encountering such issues. We want to remind you that the guide you will read will give you general information. We expect you to address the importance of cooperation and challenge differences by drawing attention.

We encourage all delegates to come prepared, engage actively, and collaborate with fellow delegates to make HASMUN'26 a memorable and enriching experience. Your passion, commitment, and innovative ideas are essential in achieving the committee's goals and positively impacting the world.

Lastly, we would like to extend our sincere gratitude to the Secretary-General Nazrin Saddigova and the organisers of this conference for their determined efforts. Their dedication and hard work allowed us to unite and engage in meaningful discussions on urgent global issues.

We wish you all the best in your preparations and look forward to seeing you at HASMUN'26 , *welcome home.*

Kindest Regards,

Bengs İlban, Barış Yavaş
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3. Introduction to the United Nations Environment Programme

The United Nations Environment Programme (UNEP) is the leading environmental authority within the United Nations system. It plays a central role in shaping the global environmental agenda, supporting international cooperation, and promoting the coherent implementation of environmental dimensions of sustainable development. UNEP's work is organized across major areas such as climate action, nature action, chemicals and pollution action, environmental law and governance, finance and economic transformation, and sustainable development goals.

Within the broader UN framework, UNEP is important because it connects environmental protection to development, governance, and international policy coordination. Its institutional structure also reflects this global role, including the UN Environment Assembly, the Committee of Permanent Representatives, and a wide network of divisions, offices, and conventions. The organization further emphasizes that a clean and healthy environment is necessary to achieve the Sustainable Development Goals and identifies climate change, biodiversity loss, and pollution and waste as core global challenges requiring urgent action.

For this reason, UNEP should not be understood only as an environmental advocacy body. It functions as a key policy and governance institution within the international system, helping states respond to environmental crises while integrating sustainability into broader economic and social development strategies.

4. Introduction to the Agenda: Assessing Whether States Should Prioritize Environmental Protection Over Economic Growth, Particularly in Developing Countries Facing Poverty, Industrialization, and Development Pressures

The question of whether states should prioritize environmental protection over economic growth has become one of the central policy debates of contemporary international development. For many developing countries, this is not an abstract disagreement but a practical governance problem. Governments are expected to reduce poverty, expand employment, industrialize, improve infrastructure, and raise living standards, while at the same time responding to climate change, environmental degradation, resource depletion, and pollution. The difficulty of this agenda lies in the fact that these objectives are deeply connected: development policies shape environmental outcomes, and environmental decline in turn affects economic stability, public health, and long-term social welfare.

This tension is especially significant in developing countries because economic growth is often treated as an urgent necessity. States facing high poverty rates, weak industrial bases, demographic pressure, and limited fiscal capacity tend to view rapid growth as essential for job creation, service delivery, and political stability. In this context, industrialization, urban expansion, infrastructure investment, and export-oriented production are frequently presented as unavoidable steps toward national development. Yet recent research also shows that when such growth is pursued without effective regulation, it is commonly accompanied by higher resource consumption, rising emissions, ecological damage, and increased pressure on land, water, and energy systems.

For that reason, the agenda should not be understood as a simple choice between "development" and "the environment." The more difficult question is whether short-term growth strategies that ignore environmental costs can truly support development in the long run. United Nations and World Bank

materials increasingly frame environmental sustainability not as a secondary objective, but as a condition for durable and inclusive development. The 2030 Agenda defines sustainable development through its economic, social, and environmental dimensions, to be pursued in a balanced and integrated manner. Similarly, UNEP describes an inclusive green economy as a pathway for improving human well-being and social equity while reducing environmental risks and scarcities, and the World Bank warns that the depletion of natural capital directly undermines poverty reduction and sustainable development objectives.

The importance of this link becomes even clearer when environmental decline is viewed in economic terms. Environmental degradation does not only produce ecological harm; it can also reduce productivity, damage public health, weaken food and water security, increase disaster vulnerability, and raise the fiscal cost of recovery and adaptation. The World Bank notes that the collapse of key ecosystem services could generate major economic losses globally and that low-income countries could face especially severe GDP impacts because of their dependence on environmental assets and ecosystem services. In other words, growth strategies that rely on overexploitation may generate immediate output while simultaneously eroding the material foundations of future development.

At the same time, it would be unrealistic to argue that developing countries can simply slow growth in the name of environmental protection without confronting the social consequences of that choice. Environmental regulation, green infrastructure, renewable energy transitions, and cleaner production models often require financing, institutional capacity, technology, and policy continuity that many lower-income states do not possess at the necessary scale. This is why the debate remains contested. A state facing unemployment, energy shortages, housing deficits, or large informal sectors may regard strict environmental rules as economically costly in the short term, even if they are justified in the long term. Research on sustainability and development therefore increasingly emphasizes that the issue is not only whether growth happens, but how it is managed, distributed, and regulated.

This also raises a question of justice. Developing countries did not contribute equally to the historical accumulation of global environmental damage, yet they are often among the most exposed to its consequences. At the same time, they are expected to adopt cleaner development pathways under global norms that were established after earlier industrial powers had already grown through far more carbon-intensive and extractive models. As a result, the debate over priorities is not only about economics or ecology, but also about fairness, responsibility, and policy space. It asks whether developing states are being asked to carry a disproportionate share of the adjustment burden, and what forms of international support are necessary if environmental protection is to be pursued without deepening poverty or inequality.

Recent scholarship further suggests that economic growth itself cannot be treated as automatically beneficial. Its developmental value depends on who benefits from it, which sectors drive it, and what social and environmental costs it produces. The MDPI study the user shared argues that economic growth can support social sustainability when it raises incomes, expands employment, and increases investment in services, but it can also undermine social sustainability when gains are concentrated, inequalities widen, or natural resources are depleted. This is particularly relevant for developing countries where GDP growth may coexist with weak redistribution, uneven development, and persistent exclusion.

5. Key Concepts and Terminology

5.1. Sustainable Development

Sustainable development refers to a model of progress that connects economic advancement, social well-being, and environmental protection rather than treating them as separate objectives. In the United Nations framework, this idea is reflected in the 2030 Agenda and the Sustainable Development Goals, which stress that ending poverty, reducing inequality, supporting economic growth, and protecting the environment must be pursued together through an integrated approach.

5.2. Economic Growth vs. Economic Development

Economic growth usually refers to a measurable increase in output or income, most commonly expressed through rising real GDP or GNP. Economic development is a broader concept: it includes improvements in living standards, economic health, and the structural transformation of society, and therefore goes beyond numerical expansion alone. The distinction matters because a country may experience growth without achieving equitable, inclusive, or socially meaningful development.

5.3. Environmental Protection and Conservation

Environmental protection and conservation refer to the preservation, protection, and responsible management of natural resources such as air, water, forests, and wildlife. In policy terms, conservation is not limited to preventing environmental harm; it also aims to maintain biodiversity, ecological balance, and the natural systems on which human life and economic activity depend. This logic is consistent with the SDG framework, especially the goals related to climate action, oceans, and terrestrial ecosystems.

5.4. Climate Justice and Equity

Climate justice and equity highlight that climate change is not only an environmental issue but also a matter of fairness, rights, and responsibility. Climate justice focuses on treating people justly in climate action, especially by protecting those who are poorest, most vulnerable, or most exposed to environmental risk, while equity requires that the burdens, costs, and benefits of climate action be shared fairly across society.

5.5. Green Economy and Just Transition

A green economy is generally understood as an economy that improves human well-being and social equity while reducing environmental risks and ecological scarcities; in simple terms, it is low-carbon, resource-efficient, and socially inclusive. A just transition complements this idea by emphasizing that the shift toward environmentally sustainable economies must also be fair to workers, communities, and other affected groups. For that reason, just transition is not limited to the energy sector alone, but applies across sectors where environmental reform may create major social and economic consequences.

6. Historical Evolution of the Development–Environment Debate

The development–environment debate did not emerge all at once. It developed gradually as governments, scholars, and international institutions began to recognize that economic expansion and environmental decline were closely connected. In its early stages, the debate focused mainly on the environmental side effects of industrial growth. Over time, however, it evolved into a broader discussion about how economic development, social welfare, and ecological limits should be addressed together. In that sense, the history of the debate is also the history of how environmental protection moved from the margins of public policy to the center of international development governance.

6.1. Industrialization and Environmental Degradation

The first phase of the debate was shaped by industrialization. Industrial development brought major advances in production, transportation, urban growth, and living standards, but it also depended heavily on fossil fuels, intensive extraction of raw materials, and large-scale manufacturing. As several historical accounts note, this model of development produced rising levels of air and water pollution, resource depletion, habitat destruction, and broader ecological damage. Industrialization therefore came to be understood not only as a driver of economic growth, but also as a source of long-term environmental pressure.

These consequences became harder to ignore during the twentieth century, when industrial accidents, toxic pollution, and visible ecological decline drew wider public attention. The record of this period includes events such as the Great Smog of London, mercury poisoning in Minamata, major oil spills, industrial explosions, and heavily polluted urban rivers. Such cases helped demonstrate that environmental damage was not a distant or abstract concern, but a direct outcome of prevailing production models. They also strengthened the argument that growth without environmental limits could generate serious human, social, and economic costs.

In this early period, the dominant assumption in many states was that economic growth should come first and environmental costs could be addressed later. This logic reflected the priorities of industrial expansion, especially in societies focused on modernization and post-war recovery. Yet the accumulation of pollution, health risks, and ecological stress gradually challenged that assumption. As a result, the development–environment debate began to take shape as a question of whether industrial progress could continue under the same model, or whether development itself needed to be redefined.

6.2. Emergence of Global Environmental Awareness (1970s–1990s)

A major turning point came in the late 1960s and early 1970s, when environmental concerns moved more clearly into public and political life. Before 1970, environmental regulation in many countries remained limited; according to contemporary historical accounts, there were few effective rules governing pesticides, leaded gasoline, or vehicle emissions, even as toxins spread through ecosystems and human communities. Earth Day, first observed in 1970, helped transform environmental protection into a visible public priority and became one of the clearest expressions of rising environmental awareness.

This growing awareness soon entered the international arena. The 1972 United Nations Conference on the Human Environment in Stockholm is widely recognized as the first major global conference to place environmental issues on the international agenda. Its legacy was not limited to discussion alone:
it also led to the creation of the United Nations Environment Programme (UNEP), encouraged the

establishment of environment ministries and agencies in many countries, and helped lay the foundations of modern environmental diplomacy and governance. Stockholm was important because it treated environmental concerns as matters of international cooperation rather than purely domestic policy.

The period that followed broadened the discussion further. During the 1970s and 1980s, environmental thinking moved beyond narrow pollution control and toward the larger relationship between environment and development. The idea that economic growth could not be treated separately from natural limits became increasingly influential, especially after debates on resource depletion, ecological risk, and the long-term effects of industrial society. By the late 1980s, the Brundtland Report gave this shift a clearer conceptual form by defining sustainable development as development that meets present needs without compromising the ability of future generations to meet their own needs. This definition helped connect environmental protection to questions of equity, poverty, and long-term development planning.

By the 1990s, environmental awareness had become more institutional and more global. The debate was no longer only about protecting nature from industrial harm; it was increasingly about designing development strategies that could integrate economic, social, and environmental objectives. In other words, the language of sustainability began to replace the earlier view that environment and development were separate policy fields. This transition was crucial because it turned a moral and scientific concern into an organizing principle for international governance.

6.3. From Rio to Paris: Institutionalizing Sustainability

The 1992 United Nations Conference on Environment and Development in Rio de Janeiro marked the next decisive stage in this evolution. The Rio Earth Summit brought environment and development together within a common international framework and produced several landmark outcomes, including Agenda 21 and the Rio Declaration on Environment and Development. It also strengthened the wider treaty architecture that shaped environmental governance in the following years, including the UN Framework Convention on Climate Change, the Convention on Biological Diversity, and the later development of the UN Convention to Combat Desertification. Rio was therefore significant not simply as a conference, but as the moment when sustainability became a structured multilateral agenda.

After Rio, sustainability became increasingly embedded in institutions, review mechanisms, and international policy processes. The post-Rio period saw the expansion of governance structures such as the Commission on Sustainable Development, as well as stronger emphasis on public participation, reporting, and coordination across environmental and development issues. Later, Rio+20 helped catalyze the formal development of the Sustainable Development Goals, the establishment of the United Nations Environment Assembly, and the High-level Political Forum, reflecting a more integrated and multi-stakeholder model of governance. These developments showed that sustainability was no longer treated as a secondary concern, but as a framework guiding international policy across multiple sectors.

The Paris Agreement of 2015 represented a further stage in this institutionalization. According to the UNFCCC, the Agreement is a legally binding international treaty on climate change, adopted in 2015 and in force since 2016. Its importance lies not only in its temperature goals, holding warming well below 2°C and pursuing efforts toward 1.5°C; but also in the governance model it created. Through

nationally determined contributions, five-year cycles of increasing ambition, transparency mechanisms, and provisions for finance, technology, and capacity-building, the Paris Agreement linked climate protection directly to long-term national development planning. In doing so, it turned sustainability from a broad principle into an operational system of commitments and review.

Taken together, Stockholm, Rio, and Paris illustrate the long historical movement from environmental concern to environmental governance, and from environmental governance to the institutionalization of sustainability itself. What began as a reaction to the environmental costs of industrialization gradually became a broader international effort to reconcile development with ecological limits. This historical evolution explains why current debates no longer ask only whether growth harms the environment, but also how states can pursue development in ways that are economically viable, socially just, and environmentally sustainable.

7. The Development Imperative in Vulnerable and Developing States

In vulnerable and developing states, development is not usually framed as a long-term aspiration alone, but as an immediate political, social, and economic necessity. Many such states face persistent poverty, limited fiscal capacity, narrow production structures, and high exposure to external shocks. In the United Nations' Multidimensional Vulnerability Index framework, economic vulnerability is understood as the risk of harm arising from adverse external economic shocks, while UNCTAD notes that structural vulnerabilities in many developing economies are compounded by factors such as climate pressures, commodity price volatility, and unequal integration into global production networks. For that reason, development policy in these contexts is often treated as a matter of resilience and state capacity as much as one of income growth.

7.1. Poverty Reduction and Economic Priorities

The most immediate reason why governments in developing states prioritize development is poverty reduction. Economic growth is often seen as essential for creating jobs, increasing household incomes, expanding the tax base, and enabling public investment in health, education, infrastructure, and social protection. UNDP's guidance on poverty reduction emphasizes that the strongest results come from combining sustainable growth with greater equity, rather than treating growth alone as sufficient. OECD analysis similarly finds a clear positive relationship between growth and poverty reduction, while also showing that inequality affects how strongly growth benefits the poor: the same increase in income can reduce poverty far more in relatively equal societies than in highly unequal ones. This means that growth remains central to the development agenda, but its poverty-reducing impact depends heavily on distribution, employment patterns, and access to opportunity.

This helps explain why economic priorities in vulnerable states often appear urgent, and sometimes dominant. Where large shares of the population remain close to or below poverty thresholds, governments tend to focus on employment, food security, affordability, and basic service provision before longer-term objectives can be fully pursued. In such contexts, development is expected to deliver visible material improvements: more stable incomes, more productive sectors, and stronger public capacity. As a result, policies that slow growth without offering credible alternatives are often seen as politically and socially difficult to sustain, especially in countries where development shortfalls are directly linked to instability, exclusion, or weak state legitimacy.

7.2. Industrialization as a Pathway to Development

Industrialization has historically occupied a central place in this development logic. UNCTAD notes that, for roughly 250 years, countries that successfully transformed their economies did so through industrialization, which expanded higher value-added activities, promoted economic diversification, and supported higher income levels. For many developing states, manufacturing has therefore been viewed not simply as one sector among many, but as a route to structural transformation: a way to move labor out of low-productivity agriculture, build domestic productive capacity, and reduce dependence on raw commodities or low-value activities. Industrialization is also often associated with stronger export capacity, technological upgrading, and a broader tax base for the state.

At the same time, the contemporary industrial path is more difficult than it was for earlier developers. UNCTAD emphasizes that manufacturing has become more capital- and skill-intensive, automation has weakened the job-absorbing capacity of industry, and global competition has increased barriers for latecomer economies. It also notes that traditional industrialization has generated serious environmental damage through pollution and greenhouse gas emissions. This creates a central dilemma for developing states: industrialization remains attractive because of its historic connection to productivity growth and structural change, yet it is now harder to access, less labor-absorbing in some contexts, and more contested because of its ecological costs. The result is not the disappearance of industrial ambition, but a more complex search for forms of industrial policy that can deliver transformation without reproducing earlier patterns of exclusion and degradation.

7.3. Demographic Pressures and Urban Expansion

Demographic change adds another layer of urgency to the development imperative. According to the United Nations, 55 per cent of the world's population now lives in urban areas, and that share is projected to rise to 68 per cent by 2050. Earlier UN urbanization data further indicate that urbanization and overall population growth could add around 2.5 billion people to urban populations by 2050, with almost 90 per cent of that increase concentrated in Asia and Africa. This means that a large share of future population growth will occur in regions where many states are already dealing with poverty, infrastructure deficits, informality, and limited planning capacity.

Academic research on developing countries shows that urbanization has proceeded extremely rapidly: between 1950 and 2015, the urban population of developing countries increased from about 300 million to 3 billion, while the urban share of the population rose from about 17 per cent to 50 per cent. The same research argues that this expansion cannot be explained only by migration from rural to urban areas. Standard models emphasize rural push factors such as agricultural change and rural poverty, and urban pull factors such as industrialization and urban-biased policies, but demographic factors within cities also matter. In particular, high urban natural increase has contributed significantly to urban expansion in the developing world, adding pressure even where formal job creation and infrastructure growth do not keep pace.

These pressures make development an urban question as well as a national one. OECD analysis shows that cities are facing complex demographic challenges linked to natural and migratory factors, including the need to manage population growth or decline, adapt infrastructure and services, and respond to social isolation and segregation within urban areas. In fast-growing developing cities, these pressures are often even sharper because transport, housing, sanitation, energy systems, and labor markets are already under strain. As a result, urban expansion can become both a sign of development

opportunity and a source of deepening vulnerability. For many developing states, the development imperative is therefore shaped not only by poverty and industrial ambitions, but also by the need to absorb large and growing urban populations in a way that preserves social order, economic opportunity, and state capacity.

8. Environmental Constraints and Global Risks

Environmental pressures are not secondary to development; they increasingly shape the conditions under which development can occur. Current scientific and policy assessments describe climate change, biodiversity loss, pollution, and ecosystem degradation as interconnected processes that affect livelihoods, food systems, public health, infrastructure, and long-term economic stability. The IPCC states that the interactions among climate, ecosystems, biodiversity, and human society are already generating emerging risks, while the European Commission's Knowledge for Policy platform warns that continued pollution, resource exploitation, and environmental degradation can produce severe, pervasive, and in some cases irreversible effects for ecosystems, people, assets, and economies. Peer-reviewed work also shows that climate and ecological breakdown can trigger cascading effects across economic and financial systems, expanding environmental harm into broader questions of resilience and stability.

8.1. Climate Change and Ecological Degradation

Climate change and ecological degradation reinforce one another. Rising greenhouse gas emissions intensify warming and extreme events, while degraded ecosystems become less capable of absorbing shocks, regulating water, storing carbon, and supporting human livelihoods. The IPCC reports that climate change has already altered marine, terrestrial, and freshwater ecosystems across the world, causing local species losses, mass mortality events, ecosystem restructuring, and even the first climate-driven extinctions. At the same time, continued high emissions are expected to produce mostly negative impacts for biodiversity, ecosystem services, livelihoods, and food and human security.

These trends matter politically as well as environmentally. As climate risks intensify, the effects are no longer confined to nature alone; they increasingly affect agriculture, health, infrastructure, and social stability. UNEP notes that environmental pressures such as water scarcity, inequitable access to land resources, and hazardous waste can threaten stability and peace, while broader research links climate-related degradation to food insecurity, displacement, and wider security pressures. In this sense, climate change is not simply an environmental issue but a multiplier of existing vulnerabilities in already fragile social and economic systems.

8.2. Resource Depletion and Biodiversity Loss

Resource depletion and biodiversity loss are central environmental constraints because they reduce the natural foundations on which economies depend. According to the IPBES global assessment, the direct drivers with the largest global impacts on nature are changes in land and sea use, direct exploitation of organisms, climate change, pollution, and invasive alien species. For terrestrial and freshwater ecosystems, land-use change has had the largest relative negative impact on nature since 1970, followed by overexploitation through activities such as logging, hunting, harvesting, and fishing. In marine ecosystems, direct exploitation has had the largest relative impact, followed by land- and sea-use change.

The same assessment stresses that climate change is increasingly worsening the effects of other drivers, while pollution and invasive alien species continue to expand with negative effects on ecosystems. It also notes that over the past fifty years, population growth, economic expansion, and the growth of global trade have sharply increased demand for energy and materials. This is especially important for developing states: when growth depends heavily on extractive patterns of production, short-term gains may come at the cost of long-term ecological decline, lower resilience, and greater exposure to future shocks.

8.3. Transboundary Environmental Impacts

Environmental harm rarely remains within national borders. Transboundary environmental impacts arise when pollution, ecosystem damage, or resource stress generated in one state affects another through shared air, water, seas, or ecological systems. UNEP's discussion of Southeast Asian haze identifies transboundary pollution as a case where emissions originating in one country are transported into another, producing public health costs, environmental damage, and economic losses while also straining regional relations. More broadly, UNEP notes that transboundary pollution can disrupt relations between neighbouring states, especially where countries share a common resource base.

This cross-border character makes environmental degradation a matter of international governance, not only domestic regulation. The UNECE Espoo Convention established obligations for states to assess the environmental impact of certain activities at an early stage of planning when significant adverse transboundary effects are likely. Similar concerns appear in other legal regimes: the Basel Convention regulates the transboundary movement of hazardous wastes, and the Convention on Long-range Transboundary Air Pollution was created to support international cooperation against air pollution that crosses borders. These frameworks reflect a core reality of environmental governance: many environmental risks are shared, and preventing harm requires notification, assessment, and cooperation rather than unilateral action alone.

The same logic is clear in water governance. UN-Water reports that 153 UN Member States rely on waters that either flow from or flow to another country, and that transboundary rivers alone account for around 60 per cent of the world's freshwater flows. This means that water scarcity, contamination, and ecosystem degradation in one jurisdiction can create direct consequences for populations well beyond it. For that reason, transboundary environmental impacts are not an exceptional category of environmental harm; they are a regular feature of a deeply interconnected ecological system.

9. The Policy Dilemma: Trade-offs Between Growth and Protection

The policy dilemma between growth and environmental protection arises because the activities that produce quick economic gains are often the same activities that create long-term ecological and social costs. Fossil-fuel-intensive production, resource extraction, weakly regulated industrial expansion, and low-cost waste disposal can raise output, lower short-term prices, and support employment in the near term. However, these same strategies can also degrade natural capital, increase public health burdens, weaken productivity over time, and shift costs onto future generations. For that reason, the issue is not simply whether growth is desirable, but whether growth is being achieved through methods that remain economically viable once their full environmental costs are taken into account.

9.1. Short-Term Economic Gains vs. Long-Term Sustainability

In the short term, pollution-intensive growth can appear attractive because many of its costs are hidden, delayed, or borne by others. Firms and governments may benefit immediately from lower compliance costs, cheaper energy, faster construction, and fewer restrictions on land or resource use. Yet official assessments increasingly show that this apparent advantage can be misleading. The World Bank has noted, for example, that environmental degradation is already imposing significant economic costs and that those costs tend to rise over time when governance failures and resource depletion are not addressed. UNEP similarly reports that, although environmental transformation involves up-front investment, the cost of inaction is higher and the long-term macroeconomic return becomes clearer over time.

Country evidence reinforces this point. In Lebanon, a 2025 World Bank report estimated the 2023 cost of environmental degradation at around US$2 billion, equivalent to 11 percent of GDP, linking the increase to the deterioration of environmental services and worsening pollution. The same logic appears in earlier World Bank work on Indonesia, which warned that environmental degradation was already costing the economy and would continue to do so in the long run unless environmental governance improved. These examples show that environmentally damaging growth can produce short-term output while simultaneously eroding the economic base on which future development depends.

Accordingly, the trade-off is often overstated when it is framed as “growth now versus sustainability later.” In many cases, the real choice is between immediate gains that are partly artificial because they depend on unpriced damage, and a more sustainable model that may involve higher near-term costs but lower long-term losses. Once environmental damage begins to affect health, agriculture, infrastructure, public budgets, and labour productivity, it stops being an external concern and becomes a direct development constraint.

9.2. The Cost of Environmental Regulation

Environmental regulation does impose costs, and these costs should not be ignored. Compliance requirements can increase production costs, require new investment, and generate adjustment pressures in carbon-intensive or pollution-intensive sectors. Concerns about competitiveness, job losses, and capital relocation are therefore politically powerful, especially in countries where growth remains fragile. The OECD notes that such concerns have often held back policy ambition, particularly where businesses fear that stricter regulation will weaken firms located in more ambitious jurisdictions.

At the same time, OECD evidence suggests that these negative effects are often smaller than political debates assume. Its review of a decade of empirical research concludes that more stringent environmental policies have so far had little effect on overall economic performance, despite producing clear environmental benefits. It also finds that the short-term effects on aggregate outcomes have generally been modest: a 10 percent increase in energy prices is associated with a decline in manufacturing employment of less than 1 percent on average, and productivity may slightly increase on average, especially where firms are closer to the technological frontier. In other words, regulation can be costly in specific places and sectors, but the broader macroeconomic damage is not necessarily large.

The more accurate concern is distribution, not collapse. OECD findings show that environmental policies create winners and losers by reallocating capital and labour away from high-emission activities and toward cleaner and more productive sectors. Localized losses can therefore be real even when economy-wide effects are modest. This is why the cost of regulation should be understood not only as a question of aggregate GDP, but also as a question of transition management: which firms, workers, and regions bear the burden, and whether policy packages include compensation, retraining, and support for affected households.

It is also important to distinguish regulatory cost from net social cost. In some cases, the direct cost of regulation is outweighed by avoided health and environmental damage. The U.S. Environmental Protection Agency's long-running assessments of the Clean Air Act found that the public health and environmental benefits of the Act exceeded its costs by a large margin. While this is one national example rather than a universal measure, it illustrates a broader principle: environmental regulation may be expensive for regulated actors, but still economically justified when wider social benefits are counted.

Finally, policy design matters. The OECD emphasizes that market-based policies can help mitigate negative productivity effects and generate public revenues, while the IMF notes that compensation strategies and revenue recycling can improve the political acceptability of carbon pricing and protect vulnerable households. This means that the cost of environmental regulation is not fixed; it depends heavily on whether rules are rigid or flexible, whether revenues are recycled, and whether governments combine environmental policy with industrial, social, and innovation policy.

9.3. Externalities and Market Failures

At the core of the dilemma lies a market failure. According to the IMF, environmental externalities arise when prices do not capture all costs, meaning that private decisions fail to reflect the harm imposed on others. When firms can pollute without paying for the resulting health damage, ecosystem loss, or climate risk, pollution-intensive production appears cheaper than it really is from a social perspective. In such cases, markets do not produce efficient outcomes on their own, and government intervention becomes economically justified rather than exceptional.

This helps explain why short-term growth can be environmentally destructive without appearing irrational to individual actors. If environmental costs are externalized, firms maximize private returns by overusing polluting inputs, and consumers face prices that understate the real cost of carbon-intensive goods and services. The result is overproduction of environmentally harmful activity and underinvestment in cleaner alternatives. From a policy perspective, the problem is therefore not simply "too much growth," but distorted incentives that reward damaging forms of growth.

Environmental policy is also complicated by the fact that there are often multiple market failures at once. Pollution itself is a negative externality, but clean innovation can also be undersupplied because knowledge spillovers make it difficult for private firms to capture all the benefits of research and technological change. The IMF therefore argues that carbon pricing alone is powerful but not always sufficient, and that efficient climate policy often requires multiple instruments tailored to sectoral, technological, and institutional conditions. This is why contemporary environmental governance often combines taxes or emissions trading with subsidies, standards, public investment, and targeted industrial policy.

For this reason, the policy dilemma should not be reduced to a binary opposition between state intervention and market freedom. In environmental matters, the absence of policy is itself a policy choice; one that allows environmental costs to remain hidden in market transactions and eventually reappear as health, fiscal, and development burdens. The central challenge for states is therefore to correct these market failures in ways that are economically efficient, socially acceptable, and compatible with development needs.

10. Economic, Political, and Structural Barriers

The transition toward environmentally sustainable development is often discussed as a question of policy choice, but in practice it is also constrained by deeper structural barriers. In many developing states, governments are not choosing between two equally accessible paths. They are instead operating under tight fiscal conditions, limited institutional capacity, unequal social structures, and an international system in which access to finance, technology, and policy space remains highly uneven. Recent UN and World Bank reporting repeatedly emphasizes that climate and SDG implementation are being slowed not only by domestic shortcomings, but also by gaps in global finance, weak enabling environments, and systemic inequities in the international economic order.

10.1. Financing Constraints for Green Development

A first major barrier is finance. Green development requires substantial up-front investment in clean energy, resilient infrastructure, public transport, adaptation systems, ecosystem restoration, and institutional reform. Yet the financing environment facing many developing countries is highly restrictive. The Financing for Sustainable Development Report 2024 states that developing countries need around $4 trillion in additional annual investment to meet sustainable development needs, while also noting that they pay about twice as much, on average, in interest on their sovereign debt stock as developed countries. It further argues that weak policy and regulatory incentives, misaligned public budgets, and insufficient private investment are preventing progress.

This problem is even sharper in climate adaptation, where needs are rising faster than available funding. UNEP's Adaptation Gap Report 2025 estimates that developing countries will require $310 billion per year in 2035 based on modelled costs, or $365 billion per year when extrapolated from stated national needs. By contrast, international public adaptation finance flows to developing countries were only $26 billion in 2023, down from $28 billion the year before. UNEP also warns that, on current trends, the Glasgow commitment to double adaptation finance will not be met.

The financing challenge is not limited to climate adaptation. Nature protection faces a similar gap. UNEP's State of Finance for Nature 2023 explains that current finance for nature-based solutions remains far below what is needed to meet climate, biodiversity, and land targets, while also estimating that close to $7 trillion per year continues to flow into activities that directly harm nature. This is important because it shows that the problem is not simply a shortage of capital in the abstract, but the persistence of financial systems that still reward environmentally damaging investment patterns.

For many lower-income states, then, financing constraints are double-sided: there is too little affordable capital for green investment, and too much capital still directed toward environmentally destructive activity. The result is that governments may recognize the need for greener development pathways but still lack the fiscal space, concessional finance, and private investment conditions necessary to carry them out at scale. World Bank CCDRs similarly emphasize that climate and

development strategies depend not only on technical planning but also on the creation of stronger enabling environments capable of catalyzing long-term public and private investment.

10.2. Governance Capacity and Institutional Limitations

A second barrier concerns governance capacity. Green development is not implemented through targets alone; it requires functioning institutions that can design policy, coordinate across ministries, regulate markets, enforce standards, manage budgets, collect data, and work across national and subnational levels. Where institutions are weak, fragmented, under-resourced, or politically constrained, even well-designed sustainability strategies may fail in implementation. The OECD notes that, despite years of donor engagement, developing countries' efforts to address climate change and its consequences remain stifled by important capacity gaps.

UNDP's work on environmental governance frames this issue in similar terms. It argues that environmental governance systems must become more effective, inclusive, and accountable, and stresses the need to strengthen institutional, policy, and regulatory frameworks across all levels of governance. Its guidance on capacity development for environmental sustainability likewise treats capacity not as a secondary issue, but as a core condition for translating sustainability goals into policy practice.

The World Bank also treats governance as central rather than peripheral. Its climate governance work defines the issue explicitly as using institutions to address governance failures, strengthen incentives, and build capability for climate action. This reflects a broader reality: many barriers to green development are not caused by a lack of awareness, but by limited administrative capability, weak coordination, poor enforcement, and low policy continuity. In practical terms, a country may have climate commitments on paper while still lacking the bureaucratic and political capacity to integrate them into energy policy, public investment planning, procurement systems, or local implementation structures.

For that reason, governance capacity should not be understood simply as "state weakness" in a general sense. It includes more specific limitations: weak legal enforcement, low-quality institutions, short planning horizons, corruption risks, low data capacity, and insufficient technical expertise to manage complex transitions. These limitations are particularly costly in environmental policy because the benefits of action are often long term, while the political and administrative burdens are immediate.

10.3. Inequality and Uneven Development

A third barrier lies in inequality and uneven development. Environmental transitions do not take place in socially neutral conditions. Where wealth, opportunity, public services, and exposure to risk are distributed unequally, environmental policy can become harder to design, harder to legitimize, and harder to sustain. The Human Development Report 2023/2024 describes current global conditions as marked by uneven development progress, intensifying inequality, and escalating political polarization, arguing that these dynamics are producing dangerous forms of gridlock.

UN SDG reporting reaches a similar conclusion. The Sustainable Development Goals Report 2025 states that progress has been fragile and unequal, with millions still facing extreme poverty, inadequate housing, and a lack of basic services, while rising inequalities and debt burdens continue to slow progress. The SDG Report 2024 goes further by arguing that systemic inequities in the global

economic and financial system leave developing countries with only a fraction of the support they need, even as inequality keeps growing and climate pressures intensify.

These inequalities also shape who bears environmental harm. A 2025 UNDP-Oxford Poverty and Human Development Initiative release found that nearly 80 percent of people living in multidimensional poverty are exposed to climate hazards such as extreme heat, flooding, drought, or air pollution. This is highly significant for the agenda at hand: vulnerable populations are often the least responsible for environmental damage, yet they are the most exposed to its effects and the least able to absorb transition costs.

In this sense, inequality acts as a structural barrier in two ways. First, it increases vulnerability by concentrating environmental risk among populations with fewer assets, lower social protection, and weaker access to services. Second, it complicates reform, because environmental regulation or pricing can be resisted when people reasonably fear that they will bear disproportionate costs. A green transition that is not socially inclusive may therefore deepen existing divides rather than resolve them.

10.4. Global Power Asymmetries and Responsibility Distribution

A final barrier concerns the unequal structure of international responsibility and power. The climate and development debate takes place in a world where countries did not contribute equally to environmental harm and do not possess equal capacities to respond. The UNFCCC itself recognizes this directly, noting that the largest share of historical and current greenhouse gas emissions has originated in developed countries, that per capita emissions in developing countries are still relatively low, and that development needs will increase developing-country emissions over time. On that basis, the Convention establishes the principle of common but differentiated responsibilities and respective capabilities, under which developed countries are expected to take the lead.

This principle matters because it frames environmental governance not only as a technical issue, but as a question of justice, burden-sharing, and policy space. The IPCC's Sixth Assessment Report similarly emphasizes that equity and distributive outcomes are central to the climate debate, including the distribution of burdens, costs, and benefits. In other words, disagreements over climate policy are also disagreements over who should move first, who should pay more, and how much developmental room poorer countries should retain.

Power asymmetries appear not only in emissions history, but also in economic structures. Developing countries generally face higher borrowing costs, narrower fiscal space, lower technological control, and less influence over international financial architecture. As UN financing and SDG reports argue, the present system remains marked by credibility gaps, policy architecture gaps, and unequal access to affordable finance. This means that states already under pressure to decarbonize and adapt are often being asked to do so while operating from structurally weaker positions in trade, debt, capital markets, and technology access.

As a result, responsibility distribution remains contested. Many developing states argue that environmental commitments cannot be separated from demands for climate finance, technology transfer, concessional lending, and reform of international institutions. From this perspective, the barrier is not only domestic unwillingness or incapacity, but an international order in which obligations are increasingly global while capabilities remain highly unequal.

11. Reframing the Debate: Can Growth and Protection Coexist?

The relationship between economic growth and environmental protection should not be understood only as a zero-sum conflict. A growing body of international policy research argues that the more important question is whether growth is being pursued through models that preserve natural assets, improve efficiency, and reduce long-term environmental harm. In that sense, growth and protection can coexist, but only when development strategies are redesigned so that economic activity no longer depends on high pollution, excessive extraction, and inefficient resource use.

11.1. Green Growth Strategies

Green growth strategies are based on the idea that economic expansion should continue while protecting the environmental systems on which human well-being depends. The OECD defines green growth as fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services needed for well-being. The World Bank makes a similar argument through the concept of inclusive green growth, presenting it as a pathway that can support poverty reduction, equity, and opportunity without causing irreversible environmental damage. This approach does not reject growth itself; rather, it seeks to change its quality, direction, and long-term sustainability.

11.2. Technological Innovation and Clean Energy Transition

Technological innovation is central to this reframing because cleaner energy systems, higher efficiency, and low-emission technologies make it possible to reduce environmental pressure without abandoning development goals. The IEA's Clean Energy Transitions Programme focuses especially on emerging and developing economies, emphasizing that clean energy transitions depend on practical policy support, technical assistance, and long-term energy planning. This suggests that the issue is not whether states must choose between development and decarbonization, but whether they can access the technology, finance, and institutional support needed to combine both.

11.3. Circular Economy Models

Circular economy models strengthen this perspective by aiming to reduce waste, keep materials in use longer, and lower the environmental intensity of production and consumption. UNEP presents circularity as a way to support sustainable consumption and production patterns, while also aligning economic activity with climate, nature, and pollution goals. In practical terms, circular economy strategies show that economic activity does not always need to expand through higher extraction and disposal; it can also grow through reuse, repair, recycling, better design, and more efficient resource systems. For that reason, circularity offers one of the clearest examples of how protection and growth can be made more compatible in policy terms.

12. The Human Dimension: Development, Equity, and Vulnerability

The development–environment debate cannot be understood only through growth rates, emissions levels, or policy design. It also has a human dimension, because environmental pressures affect people unevenly and shape their security, livelihoods, health, and freedom of choice. UNDP defines human development as a concept that goes beyond economic growth and places people's lives, capabilities, and freedoms at its center, while the OECD's human dimension of fragility focuses on the conditions

affecting people's wellbeing, potential, health, education, and equity. In this sense, the environmental question is also a question of how development outcomes are experienced by real communities, especially those already living under conditions of vulnerability.

12.1. Environmental Degradation and Human Security

Environmental degradation affects human security because it undermines the material and social conditions necessary for safe and dignified life. Earlier work linking human security and environmental security already treated environmental degradation and resource depletion as issues connected to conflict, insecurity, and sustainable development, while later scholarship has shown more directly how environmental decay contributes to food insecurity, health risks, economic stress, and personal insecurity. A University of Cape Town-hosted article on Sub-Saharan Africa, for example, argues that human insecurity is reflected in threats to life through food shortages, malnutrition, health insecurity, violent conflict, and environmental decay.

Recent research also shows that vulnerability to climate risks is not produced by hazard exposure alone. The 2024 scoping review from the *International Journal of Disaster Risk Reduction* emphasizes that social vulnerability is dynamic, emerges through the interaction of multiple factors, and varies across time and place. This is important for the agenda because environmental harm does not affect all people equally: the same drought, flood, heatwave, or pollution event can have very different consequences depending on income, housing conditions, access to services, health, and social position.

12.2. Social Inequality and Disproportionate Impacts

The human dimension of environmental stress is closely tied to inequality. The United Nations' SDG 10 materials state that inequality within and among countries remains a major global concern, and note that discrimination based on age, gender, religion, race, or belief affects one in six people globally. They also stress that rising inequality weakens inclusive growth and deepens vulnerability, especially where poorer communities already have less access to income, public services, and protection mechanisms.

This means that environmental degradation often reinforces existing social hierarchies rather than affecting populations in a neutral way. Poorer households are more likely to live in unsafe locations, depend directly on climate-sensitive livelihoods, and lack the savings, mobility, or institutional support needed to recover from shocks. From a human development perspective, this matters because development is not only about increasing national income, but also about expanding real opportunities and protecting people from the structural conditions that limit those opportunities.

12.3. Climate-Induced Displacement and Migration

One of the clearest expressions of this human dimension is climate-induced displacement and migration. The EU Agency for Asylum notes that climate crises disproportionately affect already vulnerable communities, often in climatic "hotspots" where people have limited means to cope. It further explains that over 70 percent of refugees and displaced people worldwide come from the most climate-vulnerable countries, and that climate-induced displacement often occurs within states but can also drive cross-border movement, raising questions of international protection.

The scale of this risk is substantial. The World Bank's updated *Groundswell* report warns that, without immediate and coordinated climate and development action, climate change could force 216 million people across six world regions to move within their own countries by 2050. The report also argues that stronger emissions reduction and more green, resilient, and inclusive development could reduce the scale of this migration significantly.

At the same time, the legal and policy response remains incomplete. A UNFCCC briefing paper describes climate-induced displacement and migration as a multidimensional issue shaped both by climatic events and by their wider socio-economic and human-rights consequences. It also argues that climate-induced migrants do not fit neatly within existing protection categories, since they do not automatically fall under the 1951 Refugee Convention and are not fully secured by non-binding internal displacement principles. This makes climate-related mobility not only a humanitarian and development issue, but also a governance and protection challenge.

13. Case Studies in Balancing Development and Environmental Protection

These cases show that there is no single formula for reconciling development and environmental protection. Some states rely on industrial upgrading, some on energy transition, some on conservation-based development, and some on integrated national planning. What they share is the attempt to move beyond the assumption that growth must always come at the expense of ecological stability. At the same time, all five cases also show that coexistence depends on policy design, institutional capacity, financing, and the management of social trade-offs.

13.1. China's Transition Toward Green Industrial Policy

China is a useful case because it has tried to green development without abandoning large-scale industrial policy. Research on Made in China 2025 shows that the policy was designed not only to upgrade manufacturing, but also to address low energy efficiency and environmental pollution by promoting green manufacturing systems, circular economy practices, and environmental technologies. One peer-reviewed study finds that the policy promoted green innovation through channels such as tax measures, environmental subsidies, and corporate social responsibility.

At the same time, China's case shows that greener industrial policy is not socially neutral. UNDP's 2024 report on a just transition in China highlights that the country's green transition is unfolding unevenly across regions because coal dependence, resource endowments, and development levels vary sharply by province. In Shanxi, for example, policy is moving coal power toward a back-up and regulation role while expanding distributed wind and solar, but the report also stresses that coal-heavy regions face stronger employment and social pressures and therefore require a "coordinated transition" that considers regional fairness.

13.2. India's Energy Expansion vs. Environmental Commitments

India illustrates the tension between development needs and environmental commitments in a particularly direct way. On one hand, the state continues to expand energy supply to support growth, industrialization, and rising demand in a rapidly urbanizing economy. On the other hand, official climate policy has become more ambitious: India's 2026 NDC announcement commits the country to reduce the emissions intensity of GDP by 47 percent by 2035 from 2005 levels, to achieve 60 percent cumulative electric power installed capacity from non-fossil-fuel-based sources by 2035, and to

expand forest and tree cover carbon sinks. Official government materials also state that India had already reached 235.7 GW of non-fossil installed power capacity by June 2025, equal to about 49 percent of total installed capacity, and later government reporting stated that the renewable share in total installed electricity capacity had reached 51.55 percent by November 2025.

Yet the case remains a genuine trade-off rather than a simple success story. The IEA notes that India is expected to be the main source of incremental global coal demand through 2030, which underlines how energy expansion and decarbonization are unfolding at the same time rather than in sequence. India therefore demonstrates that development and environmental protection can coexist in policy design, but that coexistence may remain unstable when clean-energy growth advances alongside continued fossil-fuel dependence.

13.3. Brazil and the Amazon: Development vs. Conservation

Brazil's Amazon case shows both the costs of a growth model based on frontier expansion and the possibility of a different pathway. Recent historical analysis notes that earlier development policies treated the forest largely as a space for exploitation, encouraging cattle ranching, land clearing, and extractive expansion. More recent governance efforts, however, have shown that stronger conservation policy can reduce forest loss significantly: one 2025 study finds that in the Brazilian Amazon, deforestation fell while the local economy grew during the 2002–2011 period, with the strongest effects in middle- and higher-income agricultural frontier municipalities. The authors argue that urbanization, poverty reduction, productivity gains, and better market access helped weaken the link between income growth and deforestation.

The more recent policy record reinforces that point, although unevenly. Official Brazilian government reporting stated that Amazon deforestation alerts in January–August 2024 fell by 24 percent compared with the same period in 2023, while OECD work now argues that sustainability should be placed at the center of Amazon development strategy and that the bioeconomy could provide a way to combine biodiversity protection, forest preservation, and community development. Brazil therefore suggests that development and conservation do not have to be opposites, but only if the economic model itself shifts away from land-extensive extraction toward value creation compatible with forest protection.

13.4. Rwanda's Green Growth Strategy

Rwanda is often presented as a case of integrated green planning rather than reactive environmental adjustment. The revised Green Growth and Climate Resilience Strategy aligns with Vision 2050, which aims to make Rwanda an upper middle-income country by 2035 and a high-income country by 2050 through a carbon-neutral and climate-resilient economy. The strategy explicitly presents green growth not as a separate environmental add-on, but as a national development pathway tied to human development, competitiveness, urbanization, and accountable institutions.

What makes Rwanda especially relevant is the degree of policy integration. The revised strategy states that one of its core objectives is to achieve energy security and low-carbon energy supply that supports green industry and services while avoiding deforestation, and the earlier strategy similarly aimed to mainstream climate resilience and low-carbon development into key sectors of the economy. Rwanda's case therefore stands out as a model of how growth and protection can be framed within a single national strategy, even though long-term success still depends on implementation capacity and finance.

13.5. European Union Green Deal as a Model Framework

The European Union's Green Deal is important less as a direct comparison to developing countries and more as a model of comprehensive policy architecture. The European Commission describes the Green Deal as a strategy to transform the EU into a modern, resource-efficient and competitive economy, with the goal of becoming the first climate-neutral continent by 2050. Its policy package links climate, energy, biodiversity, transport, agriculture, industrial policy, and circular economy reforms, and includes tools such as the Green Deal Industrial Plan, the Critical Raw Materials Act, and the Net-Zero Industry Act.

The EU case also matters because it shows how environmental goals can be embedded in financial and regulatory systems. European Parliament analysis describes decoupling economic growth from environmental harm as a key component of the Green Deal, while work on the EU sustainable finance framework highlights how the CSRD, SFDR, and CSDDD help direct reporting, disclosure, and capital allocation through mandatory standards and double materiality. At the same time, newer academic work notes that the EU's external sustainability agenda can also be perceived abroad as a trade barrier or as difficult to comply with, especially in developing regions. The EU therefore offers a strong model of institutional integration, but also illustrates how green frameworks can generate external distributional tensions beyond their own borders.

14. Limitations and Challenges in Policy Implementation

Ambitious environmental and development strategies often fail not because goals are absent, but because implementation is constrained by deeper economic, political, and institutional limits. In many developing states, greener development pathways require large up-front investment, stable policy signals, technical capacity, and credible enforcement systems. Where these conditions are weak, governments may adopt strong plans on paper while struggling to sustain them in practice. World Bank climate diagnostics, IMF work on climate finance, and OECD and UNEP governance materials all point to the same conclusion: implementation gaps are often rooted in financing pressures, weak institutions, uneven social impacts, and limited accountability systems.

14.1. Lack of Financial Resources

A major implementation barrier is the shortage of affordable finance. UNEP's *Adaptation Gap Report 2025* states that developing countries will need about US$310 billion per year in 2035 based on modelled adaptation costs, or US$365 billion per year based on needs expressed in national plans, while international public adaptation finance flows were only US$26 billion in 2023. The same report concludes that adaptation needs are therefore roughly 12 to 14 times current flows.

The same problem appears in the energy transition. The IEA estimates that annual clean-energy investment in emerging market and developing economies must rise from about US$270 billion today to US$870 billion by the early 2030s to meet national climate and energy pledges, and to US$1.6 trillion in a 1.5°C pathway. Yet financing conditions remain highly unequal: the IEA also notes that, outside China, emerging and developing economies face financing costs around twice those in advanced economies, while IMF work on Sub-Saharan Africa highlights weak financial systems, restricted capital access, regulatory barriers, and limited supervisory capacity as major obstacles to mobilizing climate finance at scale.

14.2. Political Resistance and Policy Trade-offs

Implementation is also limited by politics. Some of the most economically efficient environmental measures, especially broad carbon pricing, often face political resistance because they can raise visible short-term costs for households, firms, and regions even when they generate long-term benefits. IMF survey-based work states this directly, noting that comprehensive carbon pricing frequently encounters public and political opposition.

This resistance is reinforced by real distributional trade-offs. OECD evidence shows that environmental policies have generally had relatively small aggregate effects on outcomes such as employment, investment, trade, and productivity, but this does not mean the transition is painless. OECD work on distributional effects stresses that environmental policies can create reallocation costs, especially for displaced workers and regions tied to polluting sectors, and that unemployment and lost earnings can be significant at the local level even when national macroeconomic effects are modest. IMF analysis also finds that support for climate policy improves when revenues are used to protect economically vulnerable groups, which suggests that political feasibility depends heavily on compensation and fairness.

14.3. Technological Gaps

A third barrier is technological capacity. The problem is not only whether low-carbon and resource-efficient technologies exist globally, but whether countries can access, adapt, finance, and deploy them effectively. The UNFCCC treats technology development and transfer as a core part of climate action, and newer UNFCCC work continues to emphasize barriers to technology transfer, the need for enabling environments, stronger national innovation systems, and better integration of technology priorities into national climate strategies. UNEP's climate technology reporting similarly points to persistent gaps and enablers in scaling technology transfer and diffusion.

These technological gaps are widened by unequal market conditions. The IEA notes wide knowledge and data gaps in assessing clean-energy investment risks in emerging and developing economies, with less developed financial markets, less project-level transparency, and fewer existing projects all making deployment harder. UNCTAD has also warned that the benefits of green technologies are at risk of being captured disproportionately by developed countries, and that noticeable readiness gaps remain between developed and developing economies. IRENA's 2024 transition outlook adds that, at the current pace, 660 million people in developing countries may still lack electricity access in 2030 and 1.8 billion may remain without clean cooking, showing that technology gaps are also deployment and access gaps.

14.4. Enforcement and Accountability Issues

Even where laws, plans, and technologies exist, implementation can fail if enforcement and accountability are weak. UNEP's 2023 environmental rule of law report highlights growing attention to specialized environmental enforcement and institutional capacity-building, while OECD guidance explains that environmental compliance assurance requires a full system of promotion, monitoring, and enforcement supported by a robust regulatory and institutional framework. In other words, regulation is not self-executing: it depends on inspection capacity, monitoring systems, legal clarity, and institutions able to respond to non-compliance.

Accountability also depends on whether states can measure progress and make it visible. OECD work on outcome performance measures shows that enforcement authorities need indicators to assess whether compliance efforts are actually improving behaviour and environmental conditions. At the international level, UNFCCC transparency arrangements require regular reporting and review of emissions, policies, progress, adaptation, support, and capacity-building needs, making transparency a key accountability mechanism for climate implementation. OECD's 2025 guidance on environmental policy evaluation adds that governments need better data, trained civil servants, public reporting, and stronger transparency around distributional consequences if environmental policy is to remain credible and effective. World Bank institutional analysis reaches a similar conclusion by stressing that climate action requires coordination across agencies, long-term planning capacity, and the ability to maintain credible commitments across political cycles.

15. Existing International and Regional Frameworks

The international response to the development–environment dilemma is structured through a set of legal and policy frameworks that guide state action, define shared objectives, and create mechanisms for cooperation, reporting, and implementation. These frameworks are important because they move environmental protection beyond voluntary political language and place it within broader systems of international governance. At the same time, regional arrangements complement global agreements by addressing transboundary problems in more specific geographic contexts and by helping states implement global commitments through closer cooperation.

15.1. The Paris Agreement

The Paris Agreement is the central global framework on climate change. According to the UNFCCC, it is a legally binding international treaty on climate change, adopted by 195 Parties at COP21 in Paris on 12 December 2015 and in force since 4 November 2016. Its overarching goal is to hold the increase in global average temperature to well below 2°C above pre-industrial levels while pursuing efforts to limit warming to 1.5°C.

What makes the Paris Agreement especially important for this agenda is that it links climate action to development planning rather than treating it as a separate environmental issue. It requires countries to submit national climate action plans, known as nationally determined contributions (NDCs), on a five-year cycle of progressively greater ambition. It also provides a framework for finance, technology development and transfer, and capacity-building support, especially for countries with fewer resources and higher vulnerability. The United Nations further describes the Agreement as including commitments from all countries to reduce emissions, adapt to climate impacts, and strengthen support for developing countries.

15.2. Sustainable Development Goals (SDGs)

The Sustainable Development Goals provide the broader development framework within which environmental protection is situated. The UN's 2030 Agenda, adopted by all Member States in 2015, sets out 17 Sustainable Development Goals as a shared blueprint for peace and prosperity for people and the planet. These goals are universal in scope and apply to both developed and developing countries.

For this topic, the SDGs are important because they explicitly integrate social, economic, and environmental dimensions of development. UNDP explains that the 17 SDGs are interconnected and recognize that action in one area affects outcomes in others, meaning that development must balance economic growth, social inclusion, and environmental sustainability rather than advancing one at the expense of the others. This makes the SDG framework especially relevant to debates over whether environmental protection should be prioritized over growth, since it encourages states to pursue both through integrated policy design.

15.3. Multilateral Environmental Agreements (MEAs)

Multilateral Environmental Agreements, or MEAs, are the wider body of treaties, conventions, and protocols through which states cooperate on environmental issues. The European Commission notes that such agreements are necessary because most environmental problems have a transboundary character, and it explains that MEAs exist at global, regional, and sub-regional levels. In practice, they form the legal architecture of international environmental governance by setting rules, obligations, and common standards across issue areas such as climate, biodiversity, chemicals, waste, oceans, and air pollution.

At the global level, important examples include the Convention on Biological Diversity, which has three main objectives: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources. Another major example is the Basel Convention, which is described by its secretariat as the most comprehensive global environmental treaty on hazardous and other wastes and aims to protect human health and the environment from the adverse effects of such wastes. Together, such agreements show that environmental governance extends far beyond climate policy alone.

Regional frameworks also play an important role by translating broad global commitments into geographically specific cooperation. The European Commission points to regional agreements negotiated, for example, under UNECE or the Council of Europe, while UNECE identifies the Convention on Long-range Transboundary Air Pollution as a foundational regional treaty for addressing cross-border air pollution. UNEP likewise explains that its Regional Seas Conventions and Action Plans operate across 18 regions and provide intergovernmental frameworks for addressing marine degradation, pollution, biodiversity loss, and related issues while helping implement wider MEAs and SDG targets. These regional arrangements matter because they bring implementation closer to shared ecosystems and shared risks.

16. Questions to Be Addressed

1. Should environmental protection take priority over economic growth in developing states?
2. How can developing countries industrialize without causing severe environmental damage?
3. Can sustainable development realistically balance growth, equity, and environmental protection?
4. What financial tools are needed to support green development in lower-income countries?
5. How should states address the unequal social impacts of environmental degradation?
6. What role should clean technology and energy transition play in sustainable development?
7. How can environmental regulation be designed without worsening inequality or unemployment?
8. Are existing international frameworks sufficient to support developing countries?
9. How should responsibilities be divided between developed and developing states?
10. Which policy model best balances development and environmental protection?

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