



ENVIRONMENTAL LAWS AND CLIMATE ACTION

A case for enacting
a Framework Climate Legislation in India

Chandra Bhushan and Tarun Gopalakrishnan



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Abbreviations

BEE	Bureau of Energy Efficiency	NAPCC	National Action Plan on Climate Change
CAA	Clean Air Act	NCEEF	National Clean Energy and Environment Fund
CAG	Comptroller and Auditor General	NDC	Nationally Determined Contribution
CCC	Committee on Climate Change	NDRF	National Disaster Response Fund
CDM	Clean Development Mechanism	NERF	Non-exclusive Reconnaissance Permits
CEA	Central Electricity Authority	NGT	National Green Tribunal
CERC	Central Electricity Regulatory Commission	NMET	National Mineral Exploration Trust
CO ₂	Carbon dioxide	NMP	National Mineral Policy
CPCB	Central Pollution Control Board	OECD	Organisation for Economic Co-operation and Development
DMF	District Mineral Foundation	Ppm	parts per million
EIA	Environmental Impact Assessment	RC	Regulatory Commission
EAC	Expert Appraisal Committee	RE	Renewable Energy
ECHR	European Convention on Human Rights	SAPCC	State Action Plan on Climate Change
ENCC	National Strategy on Climate Change	SDG	Sustainable Development Goals
ERC	Electricity Regulatory Commission	SDF	Sustainable Development Framework
EPA	Environment Protection Agency	SEB	State Electricity Board
EU	European Union	SEIAA	State level Environment Impact Assessment Authority
EV	Electric Vehicle	SERC	State Electricity Regulatory Commission
FAC	Forest Advisory Committee	SPCB	State Pollution Control Board
GDP	Gross Domestic Product	SDRF	State Disaster Response Fund
GHG	Greenhouse Gas	UN	United Nations
GOI	Government of India	UNFCCC	United Nations Framework Convention on Climate Change
GST	Goods and Service Tax	USA	United States of America
HFC	Hydrofluorocarbon		
IBM	Indian Bureau of Mines		
INECC	National Institute of Ecology and Climate Change		
IPCC	Intergovernmental Panel on Climate Change		
LSE	London School of Economics		
MCDR	Minerals Conservation and Development Rules		
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme		
MoEF&CC	Ministry of Environment, Forest & Climate Change		
NABARD	National Bank for Agriculture & Rural Development		
NAFCC	National Adaptation Fund for Climate Change		
NAP	National Adaptation Programme		

EXECUTIVE SUMMARY

CLIMATE CRISIS is the defining challenge of our times. Solving it will necessitate global cooperation of the scale unprecedented in human history. The Intergovernmental Panel on Climate Change's (IPCC's) special report Global Warming of 1.5°C, published in October 2018, gave the world just 12 years to limit warming to less than 1.5°C to avoid catastrophic impacts. Limiting global warming to 1.5°C would require "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050.

Such rapid decarbonization is not possible without every country taking responsibility to cut emissions. Under the Paris Agreement, countries are free to choose their climate targets, called nationally determined contributions (NDCs). The Agreement cannot force countries to enhance their targets or penalize them for not meeting the self-declared targets. This gap in the 'compliance mechanism' will have to be filled by national law. Many countries have enacted domestic climate change laws to reflect their international commitment and set up a framework for domestic climate action. On the other hand, many countries have relied on the existing laws to enhance domestic climate action. The question is: Does India have the laws to enhance climate ambition and hold the government accountable for non-compliance, or do we need a new climate change law? If we need a new law, then what are the critical design elements for it? This is the central question that this report seeks to address.

We tackle these questions by reviewing existing literature on climate-related litigations and legislations in India and abroad. We have reviewed the framework climate legislation of the UK, Germany and Mexico, and have examined landmark climate litigations in countries such as the US, the Netherlands and Pakistan. In the end, we have assessed the existing climate-related laws in India and have assessed the role of the judiciary in advancing climate change agenda in the country.

The literature review was supplemented by the views of Indian experts on environmental law and climate/energy policy as obtained through phone interviews or written responses to a set of semi-structured questions. Our key findings are as follows:

1. Despite climate change concerns featuring in **Indian environmental litigation** broadly, it is still a peripheral and incidental issue. There are very few strategic litigations aimed at advancing ambitious climate policy. While courts have been somewhat willing to issue pro-climate decisions when approached on enforcement of 'technical and sectoral regulations,' they have generally avoided 'policy and strategic' issues. Courts in other countries have, however, started to address climate policy and drive ambition by using existing constitutional provisions (the Netherlands), existing legislations (the US), and existing climate policies (Pakistan). A well-crafted strategic climate litigation has some scope to move the climate change agenda in India.
2. Climate-specific **legislation** worldwide has some common (although not universal) elements - GHG emission reduction targets, periodic climate risk assessments, links to strategies and policy instruments, creation of institutions for expert/scientific advice, and rules for monitoring, review, and verification. However, these features have had differing levels of success in different countries. Climate legislation must suit the conditions and realities of a country.
3. There are many **existing climate-relevant legislations in India**, including laws on environment protection, forest management, electricity, and mining. On paper, these have created bodies and rules which are sufficiently broad to include climate policy in their scope. **However, these laws are not climate-specific** - they are not guided by

core climate principles, their institutional frameworks are not sufficiently integrated or coordinated to tackle the multi-faceted nature of the problem, and they are not geared for the iterative ambitious target-setting required by the Paris Agreement and best available science.

4. The **experts we surveyed** agree that we cannot rely on a purely litigation-driven approach and that Indian laws in their current form are broadly capable but not specifically suited to addressing climate change. However, there is a disagreement between experts on whether India needs a separate climate law or the existing laws need to be strengthened, primarily because of the existence of many under-implemented laws. Hence, any **new Indian climate law must be carefully tailored** to address issues incapable of being addressed by existing laws, **with minimal duplication** of existing institutions.

Therefore, we recommend a framework climate legislation for India that can strengthen and stitch together the existing laws and institutions and add the missing elements required for enhancing ambition and ensuring compliance.

The term ‘framework law’ refers to a legislative technique used to address cross-sectoral issues. Framework legislation lays down general principles and obligations, and leaves it to implementing legislation and the competent authorities to determine specific measures to be taken so as to realize such obligations, possibly within a given time limit.

A framework law on climate change can set out obligations for state authorities and private actors, establish necessary institutional mechanisms and provide the legal basis for other additional measures to be taken by the state authorities. The role of a framework climate legislation in India is:

- To establish **foundational principles** of climate policy that apply to all areas of government policy going forward.
- To establish **institutions and rules for policy coordination**, with adequate permanent capacity and resources, to avoid proliferation/duplication of decision-making bodies in the long-term.
- To establish permanent and adequately resourced **institutions for independent scientific advice** with a defined role in climate policymaking.
- To **entrust explicit climate mandates to existing institutions** in critically underserved areas of climate policy, such as climate finance (the RBI) and climate resilience planning (disaster management authorities).
- To **clarify the role of different levels of government** while empowering local governments to take on a greater role in climate mitigation and adaptation.

Based on the above, we recommend the design elements for six components of framework legislation suited to Indian conditions, including targets and budgets, mainstreaming climate change, risk assessments and adaptation plans, independent scientific advisory institutions, finance institutions, and a carbon market framework.

India is the 5th most vulnerable country to climate change impacts. It is in India’s interest that GHG emissions are reduced significantly, and serious effort is made globally to meet the 1.5°C goals. For this, India will have to take a leadership role in international climate actions. A framework climate change law that puts in place a national system to address the climate crisis will go a long way in establishing India’s credential as a climate leader.

INTRODUCTION

WHEN THE former president of the United States of America, Donald Trump, wanted to leave the Paris climate deal, he blamed the “draconian financial and economic burdens the agreement imposes on our country.” In response, dozens of articles noted that the Agreement was not legally binding for the United States (US) or any other country. Trump’s response: “Like hell it’s non-binding.”¹

The Paris Agreement is legally binding, but not in the same sense as the Kyoto Protocol that preceded it. The Kyoto Protocol set defined emissions reduction targets for a limited number of countries; the Paris Agreement on the other hand binds all countries to set targets for themselves. Neither instrument has an enforcement mechanism comparable to those found in national laws. There is no international police or emissions regulator, and international courts’ jurisdiction is limited. Hence, when countries withdrew from the Kyoto Protocol, very little could be done to ensure their adherence to emissions targets. Withdrawal from the Paris Agreement also has no material consequence, other than universal scorn, as the Trump administration found out.

The Paris Agreement also lacks tools to enhance ambition. The sum of countries’ nationally determined contributions (NDCs) reported under the Agreement still has the world on track to go well over 2°C of warming by the year 2100.² The Agreement binds countries collectively not to exceed 2°C of warming and make best efforts to keep warming under 1.5°C. Worse, countries’ actions are well short of their stated targets. This includes India, which has the most ‘equitable’ NDCs for a large economy. While India is well on track to meet the renewable energy and energy intensity of GDP targets outlined in its NDC, its forest carbon target performance is lagging.³

At the national level, these targets are part of policies such as the National Solar Mission, or the Green India Mission, placed within the broader context of the National Action Plan on Climate Change (NAPCC). While policies and plans do advance an agenda, they have fundamental limitations. In India, policies represent the current government’s political priorities. Not even the government that publishes a policy is legally bound to meet the specific targets in the policy (although the courts have sometimes found otherwise); successive governments are even less bound. Legally binding effect is achieved only through Acts of Parliament or state legislatures.

While the Paris Agreement has no enforcement mechanism, national enforcement mechanisms can be devised. This will require linking international commitments to national law, which can happen through litigation or legislation. India has several climate-relevant legislations, including on environmental protection, forest management, electricity, and mining. Indian courts have seen some litigation that references climate concerns. However, under no legislation, there is an explicit recognition of India’s commitments under the Paris Agreement. Being a dualist country, in theory, domestic implementation of international obligations requires parliamentary sanction.

This report seeks to answer the following questions:

- i) Has litigation in Indian courts resulted in an ambitious climate policy?
- ii) Are existing policies and plans sufficient for ambitious climate action in the country?
- iii) Does India need a new climate law to enhance ambition and enforce international commitments?
- iv) If so, what are the critical design elements required in such legislation?

We address these questions by analysing three inter-related areas – climate litigation, climate legislations from around the world, and existing national laws on environment, energy, and natural resources. The report builds on:

- (i) A detailed review of existing literature on climate-related litigations and legislations; and,
- (ii) Views of Indian experts on environmental law and climate/energy policy as obtained through phone interviews or written responses to a set of semi-structured questions.

In Chapter 1, we discuss litigations. Our analysis of climate litigation includes review of legal action in courts, where climate priorities such as GHG emissions reduction or climate resilience and adaptation are the principal subject. We review foundational climate cases from around the world and from India. Litigation, where climate is incidentally referred to is referenced but is not the focus of this section. We focus on litigations that aim to advance climate policy based on existing environment laws or constitutional provisions (i.e., not dependent on climate laws). The section illustrates the limitations of climate litigation in the absence of a climate law. It also presents some key emerging legal principles that should be the core of a climate legislation.

In Chapter 2, we discuss legislations. Our analysis of international climate laws focuses on legislative enactments, with a particular interest in framework climate legislations. We review framework climate legislations in three countries:

- The United Kingdom, which enacted the earliest framework climate legislation, and because India draws much of its legal tradition from it;
- Germany, as a populous industrialised coal-dependent country with a uniquely detailed framework law; and,
- Mexico, as a populous emerging economy with a relatively old framework climate law.

The chapter illustrates the key design elements shared by framework climate legislations and evaluates the utility of these elements for India.

Chapter 3 illustrates the extent to which existing Indian laws are up to the climate crisis's challenge and addresses whether India needs a framework climate legislation. Our analysis of existing Indian laws includes environmental legislation such as the Air (Prevention and Control of Pollution) Act (1981) and the Environment (Protection) Act (1986), multiple forest-related laws, and energy legislations, such as the Electricity Act (2003) and Energy Conservation Act 2001. We have also reviewed the Disaster Management Act (2005), which is often discussed in the context of climate adaptation. Some climate-relevant legislations, such as the Finance Act (2020) and union budgets published under its authority, are not reviewed in their entirety but form an essential part of our recommendations in the concluding section.

Chapter 4 documents the views expressed by climate and legal experts on environmental law and climate/energy policy.

Our concluding chapter synthesises the analysis across the three areas above to offer our view on why India needs a framework climate law and key design elements for such a law. We also examine a 2015 Private Member's Bill on Climate Change that was not discussed in Parliament, and discuss how this Bill can be improved in light of this report's findings.

This report comes at a time when India is recovering from the COVID-19 crisis. Over the last nine months, the Indian government has announced multiple economic recovery packages, including policy/regulatory measures to stimulate the economy. But a business-as-usual recovery would exacerbate the same environmental and health challenges that have led to the crisis in the first place. However, an economic recovery embedded in the principles and processes of a green economy would create jobs, boost the economy, and ameliorate the environmental crisis. A framework law on climate change that mainstreams climate change mitigation and adaptation could be one of the key tools to embed the green economy's principles in our policies and plans.

1

CLIMATE LITIGATION

- Important climate litigation worldwide
- Climate litigation in India

CHAPTER 1:

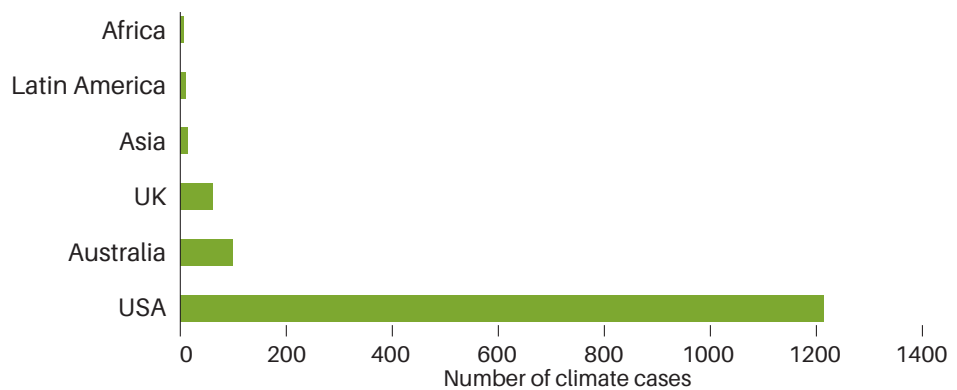
CLIMATE LITIGATION

Globally, about 1600 climate litigations have been filed between 1986 and mid-2020.

THE TERM 'climate [change] litigation' is broad in scope. Some of the litigations are aimed at outcomes that go beyond the individual, seeking to "advance climate policies, drive behavioural shifts by key actors, and/or create awareness and encourage public debate." These are referred to as 'strategic litigation', because they involve strategic decisions about who will bring the case, where and when to file, and what legal remedy to seek.⁴ The term is also broad enough to include the pursuit of private interests where the motivation is not of an activist, e.g., litigation seeking to uphold planning approvals or clarifying reporting requirements under an emissions trading system.

Researchers at Columbia University and the London School of Economics (LSE) have identified nearly 1600 cases of climate litigation that has been brought between 1986 and mid-2020: 1,213 cases in the US, 374 cases in 36 other countries, and eight regional or international jurisdictions. Outside the US, the majority of cases are in Australia (98 cases), the UK (62), and the European Union (EU) bodies and courts (57). Relatively fewer cases have been filed in the global South. As per these databases, 37 cases have been filed in the global South, of which 16 are in Asia, seven in Africa and 14 in Latin America. More than half (21) of these cases were brought between 2015 and 2019.⁵

Figure 1: Number of climate change litigation in various countries



Source: Databases of the Sabin Centre for Climate Change Law, Columbia University and the Grantham Research Institute on Climate Change and the Environment, London School of Economics.

Climate change is at the 'center' of the legal argument in about 41 percent of cases identified in the LSE database and is a 'peripheral' issue in the remaining 59 percent. In the peripheral cases, while climate change is explicitly referenced, the grounds to call for behavioural change are climate-related, but not climate-specific. These include issues such as air pollution, protection of forests, companies' obligations under emissions trading schemes or risks to coastal developments resulting from sea level rise.⁶

Cases that do not specifically refer to climate but which have practical implications for it are referred to as 'incidental climate litigation.' These are generally not included in the climate litigation databases. Examples include, challenges to private injunctions that seek to constrain protestor activity concerning fracking projects, disputes relating to insurance and risk, lawsuits dealing with illegal

deforestation, and disputes over intellectual property rights that could impact new technologies to support climate change. In developing countries, climate change is often incidental or at most peripheral to the case.⁷

While data is available from 1986, most climate litigation recorded has occurred from the mid-2000s onwards. Early cases were mostly in industrialised countries – in the US and Organisation for Economic Co-operation and Development (OECD) member states. From the data it is not clear whether developments in international law have influenced the number of climate litigations. However, the failure of the UN climate change conference in Copenhagen in 2009 (COP15) led to an increased interest in litigation in some countries, particularly among activists seeking to challenge climate inaction.⁸

Since the Paris Agreement in 2015, there has been an increase in activism and new types of climate-related cases in the courts.⁹ These include 26 new cases outside the US (across six continents) filed between May 2019 and May 2020. The cases include complaints made to National Contact Points for the OECD Guidelines for Multinational Enterprises, the United Nations (UN) Committee on the Rights of the Child, and the UN Special Rapporteurs.¹⁰

Corporations or individuals have brought almost three-fourths of these cases against governments. Governments were the defendants in over 80 percent of cases in the US (up to 2017). In 534 cases brought in the US between 1990 and 2016, an analysis found that “the judge ruled in favour of more effective climate regulation” in 42 percent. Cases relating to renewable energy and energy efficiency have favourable outcomes, while cases concerning coal-fired power plants have tended to have unfavourable outcomes. For non-US cases recorded in the LSE database, excluding cases that were settled or withdrawn, 58 percent of cases had outcomes favourable to climate change action, 33 percent had unfavourable outcomes, while 9 percent had no likely discernible impact on climate policy.¹¹

The first climate legal action was brought in the US in 1990, while the “first case expressing itself as climate litigation” was in New South Wales (Australia) in 1994. Similar litigation in the global South started almost 20 years later and became visible in the late 2010s. In contrast to the global North approach, which focuses on requesting direct regulatory action on climate change by governments, plaintiffs in the global South challenge poor enforcement of existing plans and/or environmental legislation. Also, these cases tend to include efforts to protect important native ecosystems.¹²

Governments in the global South have often engaged with climate change arguments by acting against defendants to enforce existing environmental and planning legislation. This has encouraged non-government organisations (NGOs) in the global South to start using the courts to implement anti-pollution legislation, including enforcement of Environmental Impact Assessment (EIA) rules or norms.¹³

Litigating the impacts of climate change through the lens of human rights has been one of the key features of some litigation in the global South, in contrast with the tort-based approaches often found in the global North. Many global South countries have human rights protections in their constitutions, along with agencies or commissions to oversee the implementation and operationalization of those rights. These litigations have achieved notable successes for some historically marginalized communities through innovation in human rights and environmental rights by some national courts.¹⁴ Countries such as India and the Philippines have broadened norms around ‘standing’ (i.e., the right to bring a case without strong individual evidence of harm or loss) for individuals and organizations. This includes

Litigating climate change through the lens of human rights is one of the key features of litigations in the global South, in contrast with the tort-based approaches in the global North.

The US Supreme Court has established that GHG emissions fit well within the definition of air pollutants under the Clean Air Act.

a right to approach the courts for the unborn in Philippines. In particular, south Asian courts have seen much success in using public interest litigation to address environmental concerns, partly because of judicial support for the achievement of sustainable development.¹⁵

I. IMPORTANT CLIMATE LITIGATION WORLDWIDE

1. United States

Over 70 percent of all climate litigation has been in the US. A wide range of litigation has been filed, from those related to the powers of the US Environment Protection Agency (EPA), to those dealing with the liability of oil and gas companies.

a. Litigations involving the US EPA

In the US, litigation has been filed to establish the EPA's authority to regulate GHG emissions and ascertain the scope and methods of the EPA's authority. US courts still place considerable discretion in the EPA's hands to determine the scope and method of regulation. This was on display under the Trump administration, when they rolled back over 100 Obama-era regulations under the Clean Air Act (CAA).¹⁶ Some of these rollbacks have been struck down by the courts, but others can only be changed with a change in administration.¹⁷

In 2007, the US Supreme Court laid out the EPA's authority to regulate GHGs under the Clean Air Act (CAA) in **Massachusetts v. EPA**. The Court found that the CAA authorized EPA to regulate GHG emissions from new motor vehicles because CO₂ and other GHGs "fit well within the CAA's capacious [and unambiguous] definition of air pollutant."¹⁸

While the Agency argued that it could not regulate vehicle GHG emissions because to do so would conflict with the Department of Transportation's (DOT's) fuel economy standards, the Court considered that the EPA's obligation to protect public health and welfare under the CAA is "wholly independent of DOT's mandate to promote energy efficiency." As a side note, this was an argument made by the Agency under a climate-skeptic Bush administration (which makes the Court's decision even more significant). The same agency under the Obama administration was willing to regulate CO₂.

In addition, the Court held that Section 202 of the CAA does not allow the EPA to refuse to regulate GHG emissions from new motor vehicles based on policy considerations, but that EPA must regulate GHG emissions if the Agency finds that GHGs "cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare." Based on this reasoning, the Court identified three ways EPA could respond:

- i. make a finding that motor vehicle GHG emissions may "endanger public health or welfare" and issue emissions standards;
- ii. make a finding that there is no endangerment from these emissions;
- iii. or provide a "reasonable explanation" as to why the Agency cannot or will not make an endangerment finding.¹⁹

The EPA "offered no reasoned explanation for its refusal to decide whether GHG cause or contribute to climate change". The Court hence held that EPA's refusal to

make rules was arbitrary and capricious. Following the decision in *Massachusetts v. EPA*, the EPA found that GHG emissions from motor vehicles endanger public health and welfare and subsequently issued a series of regulations under the CAA to reduce GHG emissions from both mobile and stationary sources, including new and existing fossil fuel-fired power plants and GHG-emitting sources from municipal landfills, and the oil and gas sector under the CAA. This has not seen the end of litigation on this issue - most of the Agency's action regulating GHGs get challenged in court.²⁰

b. Litigations against oil and gas companies

Many litigations in the US allege that oil and gas companies defrauded investors or consumers. The states of New York and Massachusetts filed an investor fraud suit against Exxon Mobil Corporation, claiming that it falsely stated that it had fully considered the risks of climate change regulation in its business operations.²¹

ExxonMobil successfully defended the New York litigation in 2020 and New York does not plan to appeal.²² The court found that "there was no proof offered at trial that established material misrepresentations or omissions contained in any of ExxonMobil's public disclosures that satisfy the applicable legal standard." It was still noteworthy because the trial was the first time a fossil fuel company acknowledged its exposure to climate risks in court.²³

The Massachusetts lawsuit largely echoes the New York suit. However, it also contains special allegations of consumer fraud - that ExxonMobil deceived consumers by marketing its products as environmentally friendly, while failing to disclose their potential contribution toward climate change. ExxonMobil successfully moved the case to federal (national) court, arguing that the lawsuit involves "complex federal statutory, regulatory, and constitutional issues and frameworks." The case is still developing.²⁴

Eight municipalities in California have also alleged in court that the oil and gas companies have been "misleadingly promot[ing] their fossil-fuel products through 'large scale, sophisticated advertising and communications campaigns to promote pervasive fossil fuel usage,' including by deliberately concealing the known consequences of climate change on public infrastructure."²⁵ The initial decisions from lower courts dismissing one of the cases and finding a lack of jurisdiction in another have been appealed and continue to develop. These cases will likely head to the Supreme Court.²⁶

c. Litigations invoking public trust doctrine

A final category of climate change lawsuits involves the public trust doctrine, which focuses on the government's role as trustee of the environment and its failure to uphold that trust by supporting fossil fuel development. Many of this type of lawsuit has been brought or backed by Our Children's Trust, "a non-profit public interest law firm that provides strategic, campaign-based legal services to youth from diverse backgrounds to secure their legal rights to safe climate."²⁷

Juliana v. United States is the most important Children's Trust cases.²⁸ In this 2015 case, the plaintiffs asked the Court to "order Defendants to cease their permitting, authorizing, and subsidizing of fossil fuels . . . swiftly phase out CO₂ emissions, as well as take such other actions as necessary to ensure that atmospheric CO₂ is no more concentrated than 350 [parts per million] by 2100." The case continues before the Ninth Circuit court. Similar cases have been brought in Washington, Alaska, and Florida.²⁹

While litigations against oil and gas companies have not been able to hold them accountable for climate damages, it has forced them to acknowledge risks from climate change.

In the Netherlands, the Court established climate mitigation as a duty of the State due to the "severity of the consequences of climate change and the great risk of climate change occurring".

2. The Netherlands

The Netherlands has provided the first decision by any court mandating a government to limit GHG emissions beyond the national legislation requirement in *Urgenda Foundation v. The State of Netherlands*.³⁰

Urgenda Foundation is a Dutch environmental group that, along with 900 Dutch citizens, sued the Dutch government to do more to prevent global climate change. The Hague court found the existing commitment of a 17 percent reduction below 1990 levels by 2020 low to meet its international obligations and ordered the government to limit GHG emissions to 25 percent. The Court did not specify how to achieve the reduction target, but offered suggestions including emissions trading or tax measures.

The Court concluded that the State has a duty to take climate change mitigation measures due to the "severity of the consequences of climate change and the great risk of climate change occurring." It supported its conclusion by referring to Article 21 of the Dutch Constitution (on environmental protection); EU emissions reduction targets; principles under the European Convention on Human Rights; the "no harm" principle of international law; the doctrine of hazardous negligence; the principle of fairness, the precautionary principle, and the sustainability principle embodied in the UN Framework Convention on Climate Change (UNFCCC).

On appeal, the higher court also accepted Urgenda's claims which were rejected by the lower court - under Article 2 of the European Commission on Human Rights (ECHR), which protects a right to life, and Article 8 of the ECHR, which protects the right to private life, family life, home, and correspondence. The Court found that the government is obliged by the ECHR to protect these rights from the real threat of climate change. The higher court rejected the government's argument that this litigation effectively results in "an order to create legislation" or violation of courts' role under the Dutch constitution.

The Court also found that Article 193 of the Treaty on the functioning of the EU does not prohibit a member state from taking more ambitious climate action than the EU as a whole. It found that adaptation measures cannot compensate for the government's responsibility to mitigate GHG emissions. It also considered that the global nature of the problem does not release the Dutch government from the obligation to act. On December 20, 2019, the Supreme Court of the Netherlands upheld the decision.

3. Pakistan

In *Asghar Leghari v. Federation of Pakistan*, the green bench of the Supreme Court directed the creation of a national climate change commission.³¹

Ashgar Leghari was a law student and agriculturalist from the Rahim Yar Khan district in Pakistan's South Punjab region. His family's 500-acre sugarcane farm suffered from water scarcity and temperature changes caused by climate change. In an effort to "compel the concerned departments and ministries to take action", he filed a public interest suit challenging the Government for its failure to implement its 2012 National Climate Change Policy and its Framework. He argued that the Pakistan Government was required to take "immediate remedial adaptation measures to cope with the disruptive climatic patterns", and failure to do so breached his fundamental rights as enshrined in the Constitution of Pakistan, namely the right to life in Article 9 and the inviolability of human dignity protected by Article 14.³²

An appellate court in Pakistan upheld Leghari's claims. In its first order, issued September 4, 2015, the green bench of the Supreme Court declared: "Climate Change is a defining challenge of our time and has led to dramatic alterations in our planet's climate system. For Pakistan, these climatic variations have primarily resulted in heavy floods and droughts, raising serious concerns regarding water and food security. On a legal and constitutional plane, this is clarion call for the protection of fundamental rights of the citizens of Pakistan, in particular, the vulnerable and weak segments of the society who are unable to approach this Court."

The green bench referred to the Constitutional right to life and the right to dignity as well as international principles, including intergenerational equity and the precautionary principle, to call for a "move to Climate Change Justice." It determined that "the delay and lethargy of the State in implementing the Framework offend the fundamental rights of the citizens." As a remedy, it:

- i. directed government ministries to each nominate "a climate change focal person" to help ensure the implementation of the Framework, and to present a list of action points by December 31, 2015; and
- ii. created a Climate Change Commission composed of representatives of key ministries, NGOs, and technical experts to monitor the government's progress, along with a supplemental decision naming 21 individuals to the Commission and vesting it with powers.

It noted that "[f]or Pakistan, climate change is no longer a distant threat—we are already feeling and experiencing its impacts across the country and the region. The country experienced devastating floods during the last three years. These changes come with far reaching consequences and real economic costs." Hence, it considered it important to implement the recommendations in Pakistan's National Climate Change Policy "to ensure that climate change is mainstreamed in economically and socially vulnerable sectors of the economy and to steer Pakistan towards climate resilient development."

On January 25, 2018, the Court received a report from the Climate Change Committee noting that during the period from September 2015 to January 2017, 66 percent of the priority actions of the Framework for Implementation Climate Change Policy have been implemented.

II. CLIMATE LITIGATION IN INDIA

There are nearly 20 cases of the Supreme Court, High Courts, and the National Green Tribunal (NGT) in which the parties have raised climate change issues, and where reference to climate change or global warming and the international climate change agreements is more than incidental.

These cases are grouped in existing literature into four categories³³:

1. Cases referring to the climate impacts of government decision/ government's inability to regulate certain activities;
2. Cases seeking proper implementation of the law or government policy;
3. Cases requesting directions to create new policies on climate change; and,
4. Cases in which government defended its policy decision by referring to climate change.

Pakistan's Supreme Court has invoked the right to life and dignity and the precautionary principle to call for a "move to Climate Change Justice".

NGT has referred to CDM, black carbon, Paris Agreement, carbon sink, low carbon transport etc. to substantiate its judgements.

1. Cases referring to the climate impacts of government decision/ government's inability to regulate certain activities

In *Om Dutt Singh v. State of Uttar Pradesh & Ors.*³⁴, the applicants challenged the construction of a massive irrigation project. One of the grounds raised was that submergence of large tracts of forest land would lead to methane emissions, which "is known for a positive feedback trigger for global warming." The NGT did not address the climate issue in its final order, preferring to let the project continue despite acknowledging its environmental impacts.

In *Sukhdev Vihar Residents' Welfare Association & Ors. v. Union of India & Ors.*³⁵, the NGT had to consider whether a waste-to-energy plant should be permitted to operate in a densely populated residential area, over the objection (among others) that that incineration of unsegregated waste leads to GHG emissions. The Tribunal found that the plant met all of the prescribed emission standards. It also noted that the project was a Clean Development Mechanism (CDM) project, which "adopt such a technology, which takes care of all environmental issues as per the international standards and [...] are considered to be environmentally friendly."

In *Society for Protection of Environment & Biodiversity v. Union of India & Ors.*³⁶, a government notification exempting the construction industry from an environmental regulatory approval process was challenged. The NGT struck down the relevant portions of the notification, on the basis (among others) that that the exemption was in derogation of India's commitment under "principle 15 to 17 of the Rio Declaration is read along with clauses of the Paris Agreement, 2015, particularly, in the face of precautionary approach." The explanation for this derogation was in terms of general principles, without any specific commitments (such as India's NDC) being cited.

In the *Rohtang Pass case (Court on its own motion v. State of Himachal Pradesh & Ors.)*³⁷, the NGT ordered the State Government and its agencies to undertake wide-ranging measures to remedy the pollution crisis exacerbating glacier melt in the Himalayas. The bench recognized that the pollution includes black carbon, "believed to be biggest contributor to global warming after carbon dioxide."³⁸ It based its decision in part on the Constitutional right to a wholesome, clean and decent environment in Article 48A (which requires the state to protect and improve the environment), Article 51A (which places a similar but directive requirement on the citizen), and Article 21 (Right to Life).

Two cases placed in this category are similar in featuring an extensive discussion on the climate impacts of deforestation in the context of the illegal felling of trees³⁹ and rampant unauthorized construction.⁴⁰ Both decisions of the NGT referred to the destruction of carbon sinks, carbon dioxide emissions from forest loss, and localized warming effects of small-scale deforestation.

In the *Karnataka Industrial Area Development Board (KIADB) v. Sri C. Kenchappa*⁴¹, the Court was petitioned to restrain the Karnataka Industrial Area Development Board from converting agricultural land, particularly land in the green belt area, to industrial use. It was argued that conversion of land would lead to adverse impacts on the environment. In deciding that "before acquisition of lands for development, the consequence and adverse impact of development on environment must be properly comprehended and the lands be acquired for development that they do not gravely impair the ecology and environment", the Court noted the severity of climate change and its adverse impacts, citing reports by the Intergovernmental Panel on Climate Change (IPCC) and the World Watch Institute.

In the ***Manushi Sangathan v. Govt. of Delhi & Ors.***⁴² the Court was approached to declare that a government decision to limit the number of rickshaw licenses was arbitrary. The petitioners “stressed, inter alia, the importance of rickshaws as a low-carbon transportation option”.⁴³ The Court found that the restriction was arbitrary, and noted the effect of private transportation, viz. “gains achieved on account of insistence on the use of efficient automobile technologies to minimize carbon emissions appear to be completely offset by the unimpeded and unrestricted growth and use of such private vehicles.”

2. Cases seeking proper implementation of the law or government policy

There are at least seven cases in this category in which the litigants approached the Court seeking proper implementation of the law or government policy. In two of cases climate change was the core issue, as the cases dealt with the formulation and implementation of climate action plans.

In ***Gaurav Bansal v. Union of India***⁴⁴, the NGT was approached to direct the government to show steps taken to implement the National Action Plan on Climate Change (NAPCC). The Tribunal held that cases regarding violation of the NAPCC, its impact, or consequences could be filed before it. Specifically, it directed states that had yet to draft their state action plans as per the NAPCC, to prepare them and get them approved expeditiously by the Ministry of Environment, Forest and Climate Change (MoEF&CC).

In ***Mahendra Pandey v. Union of India***⁴⁵, the Tribunal was approached to mandate the formulation of the action plan by the State of Delhi. The litigation was dropped when Delhi submitted the action plan to the Central Government for final approval.

In two other cases, the applicant used climate concerns to challenge the implementation of the approval process.

In ***Kalpavalli Vrishka Pempakamdarula Paraspara Sahayaka Sahakara Sangam Ltd. & Others v. Union of India***, the NGT was approached to direct a windmill farm to obtain environmental approvals in advance, on the ground that these projects have adverse environmental impacts and cause climate change. The NGT declined to do so, due to lack of evidence. The Central Government referred to the inclusion of wind energy projects in the CDM to establish their environmental credentials.⁴⁶

In ***Wilfred J v. Ministry of Environment, Forests and Climate Change***, the NGT was approached to stop regulatory approval granted to a deep-water container port project in an ecologically fragile area, on the basis that “areas likely to be inundated due to rise in sea level consequent upon global warming” are granted regulatory protection. The Tribunal dismissed the case, primarily because the project was of vital importance to international trade.⁴⁷

In the other three cases, the courts used climate change to support decisions that they arrived at for different reasons.

In ***Ratandeep Rangari v. State of Maharashtra & Ors.*** the NGT directed the MoEF&CC to develop a monitoring and compliance protocol to ensure enforcement of a notification requiring coal-based thermal power plants to use coal with ash content not exceeding 34 percent.⁴⁸ The Tribunal justified its orders on the ground that an “important co-benefit of such an initiative would be lesser GHG emissions—i.e. lesser carbon footprint in thermal power generation.”

The NGT has classified HFC-23, a climate pollutant, as an environment pollutant under Section 2(b) of the EP Act.

The Supreme Court of India has recognized the larger public interest in reducing pollution and mitigating GHGs by encouraging renewable energy sources.

In ***Hanuman Laxman Aroskar & Ors. v. Union of India & Ors.***⁴⁹, an approval granted for the construction of a new airport was suspended by the Supreme Court finding that the statutory process was not followed. The decision cited several international legal instruments and documents, including the Sustainable Development Goals (SDGs), the Paris Agreement, and India's NDC commitments.

In ***Manu Anand v. State of Kerala***⁵⁰, the Kerala High Court directed the State Government to formulate policy on the use of agricultural land for mining operations, partly on the basis that the Kyoto Protocol "reminds the nation to strive for the policies and measures to minimize adverse effects on climate change and to promote sustainable forms of agriculture in the light of climate change conditions."

3. Cases requesting directions to create new policies on climate change

There are two cases in which litigants raised climate concerns and demanded to develop new policies to accommodate those concerns.

In ***Indian Council for Enviro-legal Action v. MoEFCC & Others***, also referred to as the *HFC-23* case⁵¹, the applicant raised the concern regarding the release of HFC-23, which is a by-product of HCFC-22 manufacturing, and that it has serious climatic impacts, particularly related to air pollution. The emission of this by-product has 14,800 times more global warming potential (being a GHG) than CO₂. The applicant, relying upon Articles 47, 48A and 51A(g) of the Constitution of India, along-with the provisions of the Environment (Protection) Act (EP Act), 1986, demanded the regulation on the release of these gases to avert climate change.

The NGT classified HFC-23 as an environment pollutant under Section 2(b) of the EP Act. The Tribunal directed the MoEF&CC along with other concerned ministries/authorities to carry out a data-based study of the units manufacturing HFC-22 in which the resultant by-product is HFC-23, and to provide guidelines and frame a regulatory regime concerning storage, emission and incineration of HFC-23.⁵²

In ***Ridhima Pandey v. Union of India***, the petitioner argued that the public trust doctrine, India's commitments under the Paris Agreement, and India's existing environmental laws and climate-related policies require greater climate change mitigation action. It also argued that the term "environment," as used in the EP Act (1986), necessarily encompasses the climate.⁵³

The case was brought pursuant to section 2(m) of the National Green Tribunal Act 2010, which authorizes claims that raise "a substantial question relating to the environment." In addition to those legal provisions, the petition cited the principles of sustainable development, precaution, and intergenerational equity, as well as judicial decisions based on similar legal principles in the Netherlands (*Urgenda Foundation v. Kingdom of the Netherlands*), Pakistan (*Leghari v. Pakistan*), and the US (*Juliana v. United States*).

The petition noted that India is the third-largest national emitter of GHG (behind China and the U.S.) and most susceptible to adverse climate change impacts. It identified 1°C or 350 ppm of atmospheric CO₂ as critical thresholds for India (and the world) to avoid severe climatic changes—facts described in the petition as rooted in "the best climate science."⁵⁴

To remedy the alleged injury to the present and future climate, the petition asked the Court to order the national government to undertake a variety of

DOES INDIA'S NDC HAVE DOMESTIC LEGAL FORCE?

India is a “dualist” state, which means that international agreements (such as the Paris Agreement and the UNFCCC) must be translated into domestic law to become enforceable within the country. Article 253 of the Indian Constitution vests in the Parliament the power to make laws to implement international treaties. Further, Article 73 extends the executive power of the Union of India to matters on which the Parliament has the power to make laws.

International agreements reflecting overarching normative goals do not, however, specify the modalities of implementation and enforcement within the domestic legal systems of individual signatory countries. As such, there is no time-bound requirement for India to enact domestic legislation to give effect to the provisions of international agreements on climate change either.

Until India enacts a framework legislation, India's NDC is not a legally binding obligation owed by government to the citizens. In terms of policy documents like the NAPCC, the simplistic analysis is that these are not laws, hence they are not enforceable by courts. However, as we see from the analysis in this chapter, courts use their general authority under environmental laws to direct compliance with policies.

This works as long as the policy being enforced is somewhat general – as in drafting state climate action plans. It finds its limits when the relief asked for is more specific, as in the *Ridhima Pandey* case.

Source: Kumar, P. and Naik, A. (2019). India's domestic climate policy is fragmented and lacks clarity. *Economic and Political Weekly* Vol. 54 Issue No. 7. Accessed at <https://www.epw.in/engage/article/indias-domestic-climate-policy-fragmented-lacks-clarity>

measures, including but not limited to inclusion of climate change in the issues considered by environmental impact assessments, preparation of a national GHG emissions inventory, and preparation of a national carbon budget against which particular projects' emissions impacts can be assessed.

On January 15, 2019, NGT dismissed the case reasoning that climate change is already covered in the process of impact assessments under the EP Act (1986), and therefore, that “there is no reason to presume that Paris Agreement and other international protocols are not reflected in the policies of the Government of India or are not taken into consideration in granting environment clearances.”⁵⁵

4. Cases in which Government defended its policy decision by referring to climate change

In two cases the Government defended its policy decision by referring to climate change. In one, the government defended an increase in license fees on timber-based industries because deforestation was responsible for significant GHG emissions.⁵⁶ The government cited the UN Environment Programme's Emissions Gap Report in its submissions. The High Court of Allahabad found the license fee to be arbitrary but did not discuss the climate-specific arguments.

In the second case, a State Electricity Regulatory Commission (SERC) regulation which obligated companies to purchase energy generated from renewable sources was challenged (Renewable Purchase Obligations). The SERC defended the decision by relying on the NAPCC and the need to generate “green energy.” The Supreme Court upheld the legality of the regulation and “recognized the larger public interest in reducing pollution and mitigating GHGs by encouraging renewable energy sources.”⁵⁷

India is a “dualist” state, and hence international agreements must be translated into domestic law to become enforceable within the country.

In India, climate features prominently as a concern raised in environmental litigation, there are very few strategic litigations.

III. CONCLUSION

Litigation to drive climate priorities has taken a variety of innovative forms, including using existing constitutional provisions (Netherlands), existing air pollution legislations (US), and existing climate policies (Pakistan). Some of these have succeeded despite a lack of framework climate legislation.

While the EPA's jurisdiction to regulate climate pollutants within the scope of existing regulations has been highly controversial in the US, it is not similarly controversial in other parts of the world, including India.

In India, climate features prominently as a concern raised in environmental litigation, including stopping deforestation, indiscriminate construction, or regulating pollution from power plants. Increasingly, government, non-government and even courts are using climate concerns to support their point of view, favoring or against the environmental agenda. Therefore, climate litigations in India are still peripheral and incidental; they have not advanced the ambition or the climate change policy framework.

But the NGT and the Supreme Court have moved the jurisprudence forward in favour of more strategic litigation by:

- (i) Showing willingness to give favourable judgments if the climate issues involved are 'technical' and 'sectoral' in nature. For instance, the NGT's judgement in the case of HFC-23 and Supreme Court's ruling upholding the legality of the renewable purchase obligations shows judiciary's willingness to address climate change through the technical route.
- (ii) By accepting HFC-23 as an environment pollutant under Section 2(b) of the EP Act (1986), the NGT has paved the way for including other climate pollutants, including CO₂ under the ambit of the EP Act.
- (iii) By accepting that climate change is already covered in the process of EIA under the EP Act in *Ridhima Pandey v. Union of India*.

The ***Ridhima Pandey v. Union of India*** case did not result in a favourable judgement because it did not go far enough in identifying the gaps in national climate policy (which we discuss in more detail in Chapter 3). While climate change has been superficially 'taken into consideration', none of the government's policies so far are based on any scientific or economic assessment of what India's contribution to mid-century decarbonisation (an obligation under the Paris Agreement) should be. In addition, while the Court considered climate impacts to be included within the scope of Environmental Impact Assessment, the practice of EIA (including rules framed for conduct of EIA) clearly indicates otherwise.⁵⁸ Hence, a refined follow-up litigation can make more progress on climate priorities.

However, Indian courts' potential to push climate ambition comes with several caveats. The Indian legal system's systemic problems also affect their record on environment and climate. Despite their reputation for judicial activism, which is often interpreted as "pro-environment", Indian courts regularly do not aggressively review executive's decisions on economic policy and infrastructure. Also, judicial outcomes in India are highly unpredictable, because various legal and non-legal factors influence them.⁵⁹ Nevertheless, a well-crafted strategic climate litigation has the potential to move the climate change agenda in the country.

2

INTERNATIONAL CLIMATE LEGISLATIONS

- The United Kingdom
- Mexico
- Germany
- Key features of framework climate legislation

CHAPTER 2:

INTERNATIONAL CLIMATE LEGISLATIONS

About two-thirds of all the climate-related laws and policies are focussed on energy and low-carbon transition.

BETWEEN 1997 and 2020, the number of climate change laws and policies around the world increased by over a factor of 30 – from 60 to more than 1,800 laws and policies in 164 countries. This translates into a doubling in the stock of climate laws and policies globally every four to five years. Approximately 40 percent of these are legislative acts of the Parliament, and the remaining 60 percent are executive policies. About two-thirds of these laws and policies are related to energy and climate change/low-carbon transition.

While 76 percent of countries have at least one climate-specific regulation, these laws represent only a quarter of the total climate-relevant laws in existence. The remaining laws and policies address different aspects of climate change and low-carbon transitions.⁶⁰

Table 1: Key focus for climate-related laws and policies

	Energy	Climate change / low carbon transitions	General environment laws	Mainstreamed into development plans	Forestry	Green transport	Disaster risk reduction	Agriculture and food security	Other
No. of countries	145	125	92	71	47	18	15	12	38
% of countries	88.41	76.22	56.10	43.29	28.66	10.98	9.15	7.32	23.17
No. of laws	520	327	150	97	60	19	20	16	53
% of laws	41.24	25.93	11.90	7.69	4.76	1.51	1.59	1.27	4.20

Source: Climate Change Laws of the World (Accessed at <https://www.climate-laws.org/>).

In many countries, the distinction between laws and policies is not defined. In China, for example, the announcement of a policy is a strong signal about mid-term and long-term economic direction. In India, however, policies are expressions of political ambition but are generally not binding on the government. Legislation, therefore, is important for four reasons:

- (i) First, legislation is the typical legal response to environmental problems in many parliamentary systems of government. Such problems often do not fit into existing legal categories and typically require tailored legal approaches that need updating over time. This is even more so in the case of climate change, which is disruptive to existing legal frameworks because of its multiple causes and effects, the involvement of socio-political conflict, and its uncertain and evolving nature.
- (ii) Secondly, legislation can embed climate change planning within the administrative structure of a State, 'locking in' a policy direction by tying policy goals into a rule of law framework for governance. This is distinct from government policies that can be more vulnerable to marginalization or revocation.⁶¹

- (iii) Thirdly, legislations are usually tied to enforcement or compliance mechanisms, linking to a legal apparatus that provides for their implementation. A sanctioning mechanism might be included within the legislation itself by creating offences or avenues for civil enforcement. It might also be generated by the doctrines of a particular legal system, whether through providing private or public law remedies for breach of legislative requirements. Equally, some accountability mechanisms – such as reporting to parliament – can act as a pathway to compliance.
- (iv) Lastly, legislation has symbolic value as a source of authority. Legislation publicises the formally enacted commitment of a Government and nation-state to a particular policy and set of requirements. It is accompanied by legitimising signs of authority that can be traced to the sovereign authority of a State. In the case of climate, this symbolic function is met most strongly when a State enacts a climate-specific legislation.⁶²

This section reviews some high-profile examples of framework climate legislation from across the world to evaluate their effectiveness in driving the climate change agenda in a country.

I. THE UNITED KINGDOM

One of the earliest examples of framework legislation is the UK Climate Change Act (CCA), passed on 28 October 2008 and receiving Royal Assent on 26 November 2008 (the Climate Change Act, 2008). The Act contains several institutional features:

- (i) It sets a legally binding long-term mitigation goal (since strengthened to net-zero emissions by 2050);
- (ii) It legislates short-term intermediary targets (or carbon budgets);
- (iii) It creates an independent advisory body (the Committee on Climate Change);
- (iv) It establishes a continual process of adaptation planning; and,
- (v) It mandates regular government reporting on progress.

The Act seeks to enhance long-term predictability through a combination of long-term targets (the 2050 objectives) and medium-term carbon budgets that are 12 years ahead of time. It committed the UK to reduce its GHG emissions by 80 percent by 2050, compared to 1990 levels. However, this target was made more ambitious in 2019 when the UK became the first major economy to commit to a 'net-zero' target, i.e., a requirement to bring all GHG emissions to net-zero by 2050.

The Act established the Committee on Climate Change (CCC), an independent body to provide evidence-based advice to the UK Government and the Parliament on the mandatory carbon budgets. The CCC recommended the 2050 target date for reaching net-zero in its landmark report 'Net Zero: The UK's Contribution to Stopping Global Warming', published in May 2019.

The Act provides a carbon budgeting system to help the UK meet its targets through a series of five-year carbon budgets. The CCC has reported that the first and second carbon budget were met and the UK is on track to meet the third (2018–22) but is not on way to meet the fourth (2023–27) or fifth (2028–32) budgets. The Committee will be advising on the sixth budget (2033–37) in September 2020 – this will be the first carbon budget set in line with the new net-zero target.⁶³

The Act also includes a requirement for the Government to develop a National Adaptation Programme (NAP) to manage unavoidable climate change effects. Each NAP sets out key actions over five years.⁶⁴

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A 2018 review of the Act's effectiveness found that it has helped reduce emissions, particularly in the power sector, while the UK economy has continued to grow. The learning from this relative success was as follows:

- A comprehensive framework law is an essential tool to coordinate and advance climate action to reduce GHG emissions and climate resilience.
- A good climate law contains statutory targets, assigns clear duties and responsibilities and provides clarity about the long-term direction of travel.
- Economic-wide, multi-year targets set well in advance to define a clear, yet flexible path towards the long-term climate objective.
- A strong independent body is critically important to ensure consistent policy delivery and evidence-based decision-making.⁶⁵

Another review, which interviewed UK stakeholders who were closely involved with the design and implementation of the Act, broadly echoes these findings, but with some caveats. For example, stakeholders considered that the Act provided only partial policy stability. This was because it set targets but did not specify policies to achieve these targets. For some stakeholders, this was a sufficient policy signal – they pointed to the investment in the UK offshore wind sector as a key positive, which would not have been possible without this signal. For other stakeholders, commercial decisions were more shaped by 'actual government action' than a very long-term legal framework. Industry stakeholders commented on policy reversals over the past decade, for example on solar subsidies and carbon capture and storage.⁶⁶

Yet, very few stakeholders thought that the Act should have been more policy prescriptive. This included a lukewarm response to the idea of more specific sectoral targets. For some, the Act's flexibility to respond to trends (e.g., cheaper than expected renewables) and accommodate different political philosophies (e.g., attitudes to nuclear energy) is an important strength.

Many stakeholders agreed that in a democracy, newly elected governments should have the mandate to change policies as they see fit. While this comes at the cost of less predictability, it is a price worth paying. However, other interviewees called for 'predictably flexible' rules, i.e., for upfront clarification of the rules through which climate policies might be revised.⁶⁷

The response on whether the Act prevented backsliding was more positive. For example, the 4th carbon budget adoption in 2011 was highlighted as an important political test of the Act. The budget proposed by the CCC was heavily contested within Government and adopted only subject to a later review. That review took place in 2013/14, when the 4th carbon budget (covering the period 2023–27) was passed as recommended. Government officials recalled how the Act strengthened their hand in these situations. Reluctant ministers could be reminded that 'it's the law in the country' to meet the carbon targets.

Similarly, in 2012, a skeptical Secretary of State for the Environment, Owen Paterson, was made in-charge of adaptation policy. His tenure, though short-lived, coincided with the production of the first statutory National Adaptation Plan. His opposition created 'a lot more work' for the civil service. Still, because adaptation planning was a statutory requirement, resources had to be allocated, and the plan was produced as the Act envisaged.⁶⁸

The Act has fundamentally changed the framing of climate policy in the UK. Stakeholders concur that the Act had facilitated a more predictable and fact-based debate. Introducing a detailed monitoring and reporting process means the climate change debate is no longer ad-hoc. The statutory timelines demand a slot on the agendas of ministers, government officials, and select committees, thus ensuring that the debate 'keeps being had and that we keep moving forward'. Business and

civil society stakeholders have started timing and tailoring their interventions to the process prescribed in the Act. The clarity of the reporting requirements means they are taken seriously, ensuring 'transparency and accountability'.

Stakeholders argued that, because of the CCC's statutory interventions, the UK debate has become more evidence-based. They describe the CCC as 'an incredibly powerful voice' with an internal culture of 'absolutely ruthless interrogation'. While not all of its calls may have been correct in hindsight, the CCC analysis is widely trusted and its reports are used on all sides of the debate. Experts in Government treat the CCC 'with enormous respect'. Even opposition politicians consider that the CCC has 'provided information to MPs to actually have an intelligent debate'. Business stakeholders say they use CCC analysis both in their interactions with policy makers and in internal discussions with their senior management. CCC evidence is used abundantly in Parliament.⁶⁹

The biggest limitation of the Act has been integrating climate into all policy areas. While there was some confidence that power sector transformation was strongly attributable to the Act, stakeholders were divided on whether the Act has impacted less directly climate-connected debates such as airport expansion, shale gas exploration, consumer energy bills, or industrial strategy. Despite the CCC having a formal role in airport expansion debates, local issues (noise and quality of life) tended to dominate the discussion. Finally, stakeholders also struggled to identify concrete areas of adaptation action that have been driven by the Act, feeling that planning had not translated into action.

II. MEXICO

In April 2012 Mexico's Parliament passed the General Law on Climate Change, becoming the first large oil-producing emerging economy to adopt climate legislation. In April 2018, Mexico passed a decree amending some of the provisions of the Law to bring it into greater consistency with the Paris Agreement.

Against strong opposition from fossil fuel-intensive industry and amid the turmoil of the 2012 presidential elections, the passage of the Law has formalised political commitment and set the direction of travel for domestic climate policy in Mexico. However, implementing the Law has presented significant challenges.⁷⁰

The Law outlines the key elements of the institutional system to address climate change through the establishment of the 'National System on Climate Change' or Sistema Nacional de Cambio Climático (SINACC). The SINACC is comprised of the Inter-Ministerial Commission on Climate Change (CICC), the Consultative Council on Climate Change (C3), and the National Institute of Ecology and Climate Change (INECC), and includes representation of the State Governments and of the associations of municipal governments, as well as representatives of the Mexican Congress. The Ministry of Environment acts as the secretariat. The Law also defines and integrates policy tools and mechanisms, and sets long-term emission targets.

A National Strategy on Climate Change (ENCC) represents the mid-term vision. The Special Programme on Climate Change (PECC) articulates mitigation and adaptation measures in key sectors in accordance with ENCC, the national development plan, and sectoral programmes. Other important components include the GHG Emissions Registry, and the Climate Change Fund, created to channel public, private, national and international financial resources to finance climate change actions.⁷¹

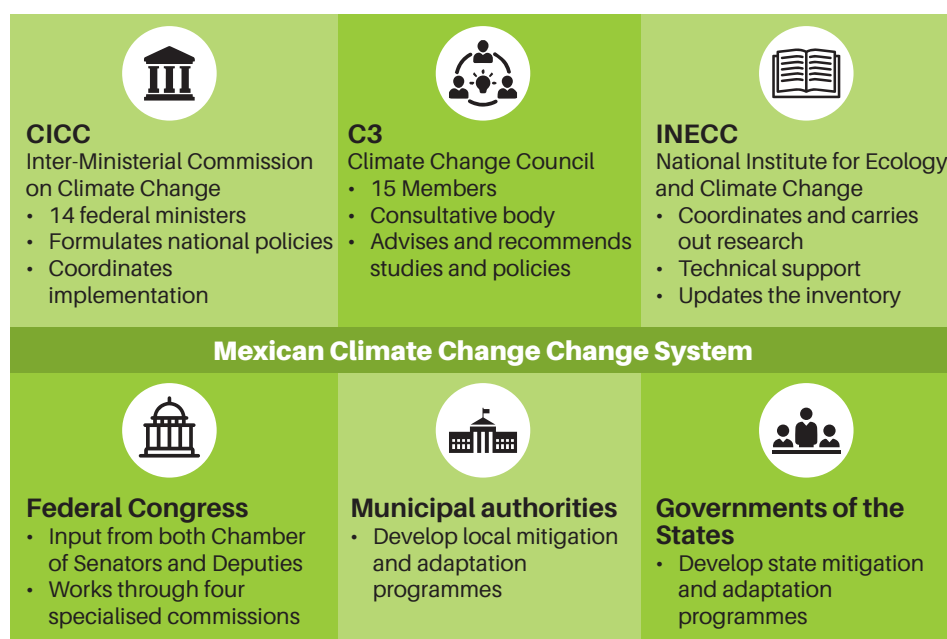
Mexico has set an aspirational goal of a 30 percent reduction of GHG emissions by 2020 over the business as usual, and a 50 percent reduction below the year 2000 baseline level by 2050. There is also a commitment to generate 35 percent of energy

Mexico has set a goal of 30 percent reduction of GHG emissions by 2020 over the business as usual, and a 50 percent reduction below the year 2000 baseline level by 2050.

Mexico's climate change law has established an elaborate institutional structure for coordination and decisionmaking.

from clean sources by 2024. These objectives were conditional on international support. The Energy Transition Strategy subsequently set longer-term goals for clean electricity generation, of 37.7 percent by 2030 and 50 percent by 2050. The Government believes Mexico could reach the goal of generating half of its power from clean energy by 2034, 16 years sooner than the target.⁷²

Figure 2: Mexico's national system on climate change



Source: London School of Economics

The ENCC did not describe specific mitigation actions in detail but instead presented a set of broad measures aligned with five “mitigation axes”:

- (1) Clean energy generation;
- (2) Increased energy efficiency;
- (3) Low-carbon sustainable cities;
- (4) Best practices in farming, forestry, and land use; and,
- (5) Reducing emissions of black carbon (a short-lived climate pollutant highlighted by Mexico due to its negative health impacts).

Measures to mitigate GHGs among the main productive sectors were aligned with emissions inventories and guidelines specified by the IPCC for sources and gases, namely, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).⁷³

An innovation of the ENCC was the inclusion of a structured vision for adaptation as a feature of the long-term vision for the country, along with three axes of action. These include:

- (i) Reduced climate change vulnerability in the social sector, particularly among the most vulnerable segments of the population;
- (ii) Reduced vulnerability of strategic infrastructure and productive systems; and,
- (iii) Sustainable ecosystems management.

The adaptation section of the ENCC was substantiated by an extensive territorial analysis compiled by INECC, of climate risks faced across the country, the hazard posed by climatic events, and vulnerability as a function of social well-being, health conditions, and food security. Nearly one-third of the municipalities were classified as being at risk from climate-based disasters.

Overall, the ENCC and its mitigation and adaptation components rested on six cross-cutting pillars:

- (i) Multi-sector coordination on policies and actions;
- (ii) Fiscal and economic instruments to drive investment;
- (iii) Research, development, and climate-friendly technologies to support action;
- (iv) Education and awareness-raising;
- (v) Monitoring, reporting, and verification for mitigation and monitoring and evaluation of adaptation; and,
- (vi) International cooperation and leadership.

Their inclusion came from national exchanges on possible enabling elements, also informed by the UNFCCC negotiations. On this basis, the Environment Ministry and INECC jointly developed the text and content of the strategy.⁷⁴

In April 2018 Mexico's Parliament passed a decree amending the Law to make it compatible with the Paris Agreement, recognising the need to keep global temperature rise to within 2°C above pre-industrial levels and ideally to keep the increase below 1.5°C. It amended the emission reduction objectives according to those specified in the NDC to the Paris Agreement submitted in 2015.⁷⁵ This includes an unconditional commitment to reduce GHG emissions by 22% and black carbon emissions by 51% below business-as-usual by 2030, implying that emissions would peak by 2026 and that the intensity of GHG emissions per unit of gross domestic product (GDP) will be reduced by about 40% between 2013 and 2030. There is a conditional target to further reduce GHG emissions by 36% and black carbon by 70% below business-as-usual by 2030, subject to international support.

The decree also introduced sectoral emission reduction targets and included provisions for new and strengthened existing policy mechanisms, including provisions for the National Adaptation Plan, emissions trading, and a transparency framework for the NDC.⁷⁶

The law and amendment have resulted in significant advances in Mexico's climate policy. The institutional foundations have been laid, long-term objectives have been defined and political continuity for climate policy-making has been strengthened; the political debate's quality has improved; the low-carbon energy transition has advanced.⁷⁷

However, a review of whether the Law has led to the integration of climate policy showed that it did so at the level of policy discourse and negotiation, but that integration at the stages of policy goals and instrument formulation only partly took place. There is an institutional fragmentation of climate mitigation and energy policies on the level of implementation via public administration.

Hence integrated climate-energy policy objectives are not furthered by the public administration, and important functions of climate policy are not implemented in an integrated way with the energy sector. The lesson is that in deciding which institution will be entrusted with oversight and implementation, institutional fit needs to be carefully checked. While ministries of the environment are often mandated with standard development and monitoring, they are rarely capable of influencing sectoral policies.

There is an absence of GHG emission parameters in the energy sector's planning instruments or the lack of cross-boundary legal mandates for designing integrated climate-energy sector programmes. This has negative effects on cross-sector collaboration, leaving political institutions incapable of implementing truly integrated policies or raising mitigation ambition. Currently, there is mere cross-

In deciding which institution should be entrusted with oversight, an institutional fit analysis is required. In Mexico, for example, environment ministry was found wanting in influencing sectoral policies.

Under Germany's climate change law national targets' ambition can be raised, but cannot be lowered.

referencing between existing energy and climate goals, but not true integration. For true integration, GHG emissions will need to be integrated as planning parameters and indicators into the policy instruments of the energy sector.

No independent body is entrusted with accountability and enforcement, and responsibility for monitoring implementation is ambiguous. The C3, which should provide independent policy advice and engage relevant stakeholders, has been ineffective, because of a lack of strategy and allocated budget. The fact that the Law does not establish sanctions for non-compliance has created the perception that it will not be fully implemented.⁷⁸

Another review found that the distributed process through which the PECC was created, with each agency limiting its ambition to existing or expected budgets, generally resulted in small-scale measures, without contemplating transformational change. Therefore, even full compliance with the program would have limited climate impact.⁷⁹

Broader measures not part of the federal government's authority was not addressed, limiting its potential impact on the federal budget and action. This ties in with a separate finding that the Law's general mandate regarding the allocation of public sources to implement climate policy has not been effectively implemented and an effective financing strategy has not been established.⁸⁰

Given the impossibility of using the PECC to drive federal budget ambition, the need is for a longer, more interactive dynamic in which agencies estimate which potential actions and budgets could be required to achieve impacts in line with long-term goals. While these would not be commitments, they could provide inputs to future policy development and planning.⁸¹

This review suggested that a future ENCC document should offer specific guidelines on the short and medium-term actions required to achieve long-term goals, articulate a whole-economy approach to target development at every stage, and avoid skewing the sectoral balance. It also underscored that this requires a level of policy-making coordination that is not typical, and achieving it will have to be prioritized.⁸²

III. GERMANY

Germany has long had climate policies aimed to meet the targets set at the EU level. In 2019, however, it adopted a framework climate legislation that enshrined these targets into national law. The impetus for the law was articulated by Environment Minister Svenja Schulze, who said that Germany's climate action needs to become "more binding, so that we actually implement what we have committed to internationally." Thus, the minister aimed to draft the law in such a way "that we can reach our targets in a plannable, reliable and fair manner."⁸³

The German Bundes-Klimaschutzgesetz (Federal Climate Change Law) entered into force on 18 December 2019 after passing the Bundestag (Parliament) and the Bundesrat (Federal Council). It guarantees that Germany fulfills national and European climate targets "to safeguard against the effects of global climate change". This rests upon the Paris Agreement target to limit global warming to well below 2°C and possibly to 1.5°C, and the commitment Germany made at the UN climate action summit in New York on 23 September 2019 to "pursue" the long-term target of GHG neutrality by 2050.

The Law makes mandatory Germany's national GHG reduction targets, i.e. at least 55 percent reduction by 2030, compared to 1990 (which was an already existing government goal, but so far not enshrined in law). National targets' ambition can be raised, should this be necessary to meet European or international obligations, but cannot be lowered.⁸⁴

The Law establishes mandatory sectoral emissions reduction targets for energy, buildings, transport, industry, agriculture, waste and other, which matches the accompanying policy document (the Climate Action Plan 2050). These targets are broken up into annual emissions budgets that generally require linear reduction (except for energy sector, required to undertake "ideally constant" reduction).

Table 2: Permissible annual emission budgets

Annual emission budgets in millions of tonnes of CO ₂ equivalent	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Energy	280		257								175
Industry	186	182	177	172	168	163	158	154	149	145	140
Buildings	118	113	108	103	99	94	89	84	80	75	70
Transport	150	145	139	134	128	123	117	112	106	101	95
Agriculture	70	68	67	66	65	64	63	61	60	59	58
Water and other	9	9	8	8	7	7	7	6	6	5	5

Source: Clean Energy Wire

The responsibility for sectoral targets is vested with the Ministry most responsible for the sector. The Ministries are required to introduce and implement necessary measures to achieve GHG reductions in their respective sectors.

In 2025, the German government will decide annual emissions budgets for 2031 and the following years. In case of target is missed or overshoot, the difference is to be "evenly spread over the remaining annual emissions budgets of the sector" until 2030. The federal government may change annual budgets, as long as this still guarantees reaching climate targets. Responsible ministries for sectors in which targets have been missed must present an emergency programme of measures to reach future targets. The Government will then decide the programmes of measures, either for the sector, or across sectors, including changing potential sectoral budgets.⁸⁵

If Germany misses its annual emissions reduction target under the EU Effort Sharing Regulation, the federal government must buy emissions allocations from other countries. The Law also mandates that the government take a guarantee from the selling countries that it will use revenues for climate action.

The Law also requires the Government to publish an annual climate action report with emissions data, information on status of implementation of climate action measures, and effectiveness of measures. An emissions projections report should also be published every two years from 2021.⁸⁶

Finally, the Law establishes an independent five-person Expert Council for Climate Issues, set up by the federal government, comprising experts on climate science, environment, social issues, and the economy. The Council will examine and evaluate emissions data, assess GHG reduction effect of proposed emergency programme measures, give its opinion on changing annual emissions budgets and

The German Law establishes an independent five-person Expert Council for Climate Issues.

The most common element of framework climate legislation is mitigation targets and an institution for independent advice.

climate action programmes. The government or Bundestag can charge the council with writing special reports.

While there are several reviews of German policies on climate change, the relative recency of this framework legislation means that its impact on climate policy is yet to be reviewed in detail.

IV. KEY FEATURES OF FRAMEWORK CLIMATE LEGISLATION

Drawing on the three legislations above and other examples of climate legislation, executive actions and policy documents from across the globe, some key features of a framework climate legislation emerge.

1. Long-term and short-term targets: The most common element is mitigation targets, such as the UK's net-zero by 2050, Germany's 55 percent reduction by 2030, and Mexico's conditional target of 36 percent reduction below business-as-usual by 2030. The UK has instituted a five-year national carbon budget, while Germany has annual national and sector carbon budget. Mexico only has a conditional and unconditional 2030 target.

The approach toward sectoral targets is mixed – Germany has defined sectoral emissions targets, Mexico has non-emissions sectoral targets (such as 50 percent of electricity generated from green power by 2024), while the UK law does not define sectoral targets.

While UK and Germany have not set defined adaptation or resilience targets, preferring to set up institutions or processes, Mexico's law established a high-level objective of reducing the vulnerability of the population and ecosystems to the adverse effects of climate change. A more specific example outside of these three countries is from Singapore, which has legislated a long-term adaptation target of a 10-fold increase in desalination capacity to meet 30 percent of long-term water needs by 2060.⁸⁷

2. Development of strategies, plans, and policy instruments: All the laws reviewed here are either linked to climate plans or strategies or assign institutional responsibility to develop such a plan/strategy. This represents the more flexible part of the climate policy package - while the law mandates that such a policy needs to be periodically developed and specifies certain minimum thresholds, the policy can be more ambitious if the government of the day chooses.

There are differences, however, in terms of policy instruments to meet mitigation targets. The UK Act is silent on such instruments, preferring to allow full flexibility on instrument choice. In Mexico, the law sets up the carbon tax and emissions trading scheme, representing a choice of instrument. In Germany, the government is authorised to buy carbon credits from other countries, but the law goes further to specify that the government must take guarantees on how those credits are used.

3. Periodic climate risk and vulnerability assessments: The UK's law requires five-year risk assessments and adaptation plans, as well as provides for an independent evaluation of risk assessments and plans. While Germany and Mexico have not mandated such assessments in law, Colombia's Law 1523 created the National Policy and System of Risk Management, which along with the adoption of climate change framework legislation, Law 1931 in 2018, requires that the national

and territorial risk management plans required under Law 1523 should incorporate actions to foster knowledge generation, and reduce risk and vulnerability to climate change. Also related, in 2015, France introduced legislation on mandatory climate change-related reporting for asset owners and asset managers.⁸⁸

4. Institutions for independent advice or coordination: All three laws reviewed here have institutions for independent advice – the UK’s Committee on Climate Change (CCC), Germany’s Expert Council for Climate Issues and Mexico’s National Institute of Ecology and Climate Change. While the UK’s CCC is widely acknowledged to be a powerful body, the evidence from Mexico is mixed, and from Germany is not yet available.

Institutions for policy coordination are a less standard feature, with Mexico’s the only law reviewed here to establish an Inter-Ministerial Commission on Climate Change (CICC), chaired by the cabinet secretary, as the coordination mechanism among the federal ministries. It also establishes the Consultative Council on Climate Change, providing for participation of State Governments, associations of municipal governments, and representatives of Congress. Germany and the UK are more content to rely on Parliament and ministries to coordinate as required.

Outside of these three, Kenya’s Climate Change Act 2016 established a National Climate Change Council, chaired by the president, as an overarching national climate change coordination mechanism and the lead agency in charge of climate change plans and actions. Bulgaria’s Climate Change Mitigation Act of 2014 takes a different direction by authorizing an existing institution – the Ministry of Environment and Water – to lead climate action coordination, with ministers in the cabinet serving as a coordination entity.⁸⁹

5. Institutions for finance: Germany’s law links to the annual budget process through an overview on progress by sector, and includes information on the cost of purchasing external credits to meet EU climate target obligations. The law also includes an obligation to assess the impact of federal and state investments on climate targets. Laws in Sweden and France have taken a similar approach.

Mexico’s law refers to market-based mechanisms to achieve its targets. It establishes a Climate Change Fund to attract and channel public, private, national, and international financial resources to support the implementation of actions to combat climate change. The provisions related to the fund outline the major sources of its assets (domestic budget, donations, international finance, taxes, and other charges) and allowable expenses. Similar funds have been set up by laws in Brazil, Bangladesh and Tuvalu.⁹⁰

6. Measurement, reporting and verification, and oversight: Mexico’s law mandates the development of a registry, methodologies, and the system for monitoring, reporting, and verification of emissions, and provides for an annual national report on climate change. Mexico’s law also mandates the evaluation of the national climate policy at least every two years.

The UK’s law requires the CCC to prepare an annual report on the status of implementation of the carbon budgets and an assessment on whether the government is on track to meet the budgets. The Secretary of State has to report to Parliament annually on emissions, including a response to the CCC’s assessment. The German government requires the annual climate action, and biannual emissions projections reports to perform similar functions.

7. Engagement with stakeholders and subnational governments: These are fewer common features in the laws surveyed. Only Mexico requires states and

Germany’s law includes an obligation to assess the impact of federal and state investments on climate targets. Laws in Sweden and France have taken a similar approach.

In several parliamentary democracies, the need for a framework climate legislation was strongly felt to provide an overall target, vision, coordination and predictability.

municipalities to develop local decarbonization and adaptation programmes. To a more limited extent, the UK Act mandates that the devolved administrations of Scotland, Wales, and Northern Ireland create their own policies and implement national targets (although this does not extend to subnational governments outside these regions).

In terms of non-governmental stakeholder engagement, Mexico's law requires the Inter-Ministerial Commission on Climate Change to make available on the web a detailed annual report on the general state of the climate; the results of evaluations of the National Climate Change Policy; and promotion of civil society's participation in planning, implementation, and oversight of policy.

More innovative models for such engagement include an Ireland law creating a Citizens' Assembly on climate change, and a Costa Rica law creating a Citizen Advisory Council and Citizen Consultative Council on Climate Change.⁹¹

V. CONCLUSION

There are different kinds of 'climate laws' around the world, including national legislations, executive actions, and (as defined by the LSE database) some policy instruments. In some jurisdictions, executive actions and policy documents are strong signals of climate ambition. However, in several democracies with parliamentary systems, including the three countries reviewed in detail (UK, Mexico and Germany), the need for a framework climate legislation was strongly felt to provide an overall target, vision, coordination and predictability.

These framework climate legislations have some common design elements, including setting targets (although specific adaptation targets are less common); mandating periodic climate risk assessments; mandating creation of climate strategies and policy instruments; creating institutions for expert/scientific advice and policy coordination; creating institutions for financing; and establishing rules for monitoring, review and verification, and oversight. Some legislations also specify a role for the civil society and sub-national governments. Within these commonalities, there is variation to reflect the ground realities in countries. For example:

- The types of targets set depends on the economic status of countries. Developed countries, such as the UK and Germany, have set absolute emissions reduction targets as well as 'net-zero' targets by 2050. On the other hand, an emerging economy like Mexico has set an efficiency target (deviation from business-as-usual) in the short-term, and emission reduction targets for 2050.
- While most laws have an associated climate policy or strategy, specification of policy instruments are less common. The UK law does not do so at all, while Mexico's law specifies the creation of a carbon credit trading scheme without specifying principles. Germany's law goes further by specifying that when the government buys credits from abroad, it must ensure that the funds are used for climate change mitigation or adaptation.
- The independent Committee created in UK's law has evolved into a powerful institution, while the scientific and policy coordination institutions created by Mexico's law have not seen similar success because of the lack of financial and political support.

Considering the above, a framework legislation certainly seems important but it has to be tailored to suit the conditions and realities of a country.

3 **CLIMATE RELEVANT LEGISLATIONS IN INDIA**

- **Water, Air and Environmental Protection Acts**
- **Minerals and Coal Legislation**
- **Electricity and Energy Efficiency Legislation**
- **Disaster Management Legislation**
- **Forest Legislation**
- **Environment Court**

CHAPTER 3:

CLIMATE RELEVANT LEGISLATIONS IN INDIA

The LSE database on climate legislation in India includes five climate legislations and 18 legislative and executive actions.

THE STATISTICS compiled by researchers at the London School of Economics (LSE) take a broad view of what constitutes a climate legislation. According to this definition, India already has five climate legislations in place – the Electricity Act, the Disaster Management Act, the Compensatory Afforestation Fund Act, the Energy Conservation Act, and the Clean Energy Cess Rules. If we look beyond legislation, the LSE database considers that India has eighteen climate laws (legislative and executive), including the union budget 2019-20 which provides incentives for electric vehicles, and the National Electricity Policy.⁹² In this section, we review key climate-relevant legislations in India to assess their effectiveness in driving climate actions.

I. WATER, AIR AND ENVIRONMENTAL PROTECTION ACTS

1. The Water (Prevention and Control of Pollution) Act 1974

The Water (Prevention and Control of Pollution) Act (1974), also referred to as the Water Act, is the earliest “environmental” legislation in India which deals explicitly with pollution and the need to prevent and control it. It was enacted under Article 252 of the Constitution (common law for two or more States on a State subject) and has a federalised structure. This was made necessary because ‘water’ is a State subject under the Seventh Schedule of the Constitution of India (which delineates the legislative competence of Central and State Governments). The ‘environment’ is not a subject mentioned in the Seventh Schedule.

Because ‘water’ is a state subject, the institutional structure of the Act accords a strong role to the States. The role of the Central PCB is to coordinate the activities and build the capacity of the State PCBs, lay down national standards, and undertake technical studies. The State PCBs are the main agencies for planning and enforcing the laws.

An industrial unit needs Consent to Establish (CTE) and Consent to Operate (CTO) from the State Pollution Control Board before establishment and operation. The State PCBs have the power to obtain information, to take and analyse samples, and powers of entry and inspection. No court is to take cognizance of an offence under the Act except on a complaint by the SPCB, with the exception of a complaint of a person who has given a 60-day notice to the Board of his intention to make a complaint.

The PCBs were partly funded through a cess levied on consumption of water by industries and local authorities. The cess has been abolished with the implementation of the Goods and Services Tax (GST) from July 2017. The Central and State Governments are to provide funds for the functioning of the CPCB and the SPCBs respectively.

Table 3: Division of powers under the Water Act

Functions of the CPCB	Functions of the SPCB
• Advising the Central Government • Coordinating activities of State Boards • Providing technical assistance and carrying out and sponsoring research and investigations • Planning and organizing training and mass media activities • Collecting, compiling, and publishing technical data and preparing manuals, codes, and guides • Laying down national minimum standards	• Planning and securing execution for prevention, control, and abatement of pollution of streams and wells • Advising the State Government • Collecting and disseminating information • Encouraging and conducting investigations and research • Collaborating with the Central Board in organizing training of persons engaged in prevention, control or abatement of water pollution. • Inspections in connection with consent to operate, etc. • Laying down technical standards • Making orders for prevention, control or abatement of discharge, etc. • Advising the State Government on location of industry likely to pollute. • Establishing or recognizing laboratories for analysis of samples, etc.

Overall, under the Water Act, the role of the CPCB is to coordinate the activities and build the capacity of the State Boards, lay down national standards, and undertake technical studies. The SPCBs are the main agencies for planning and enforcing the laws.

2. The Air (Prevention and Control of Pollution) Act 1981

The Air (Prevention and Control of Pollution) Act (1981), also referred to as the Air Act, was conceived to implement the decisions of the UN Conference on the Human Environment held in Stockholm in June 1972 regarding the preservation of the quality of air and control of air pollution. The Bill's 'statement of object and reasons' referred to the need for an integrated approach to tackle environmental problems relating to pollution. It also proposed that the Central Board and, where constituted, State Boards under the Water Act 1974, should perform the functions under the Air Act.

The overall architecture and federal relationship in the Water Act was imported into the Air Act, even though it was enacted pursuant to Article 253 of the Constitution (giving effect to international agreements) rather than Article 252 (common law for two or more States on a State subject). 'Air', unlike 'water', was not explicitly mentioned in any of the Lists in the Seventh Schedule. This could have resulted in an explicitly centralised legislation under the residuary power of Parliament outlined in Article 248 of the Constitution and interpreted by several Supreme Court decision. But this did not quite happen because, considering air and water pollution as similar problems, a similar institutional structure was considered appropriate.

The new legislation empowered the Central Board and State Boards under the Water Act to exercise functions under the Air Act. States which had not constituted

Under the Water Act, the role of the CPCB is to coordinate the activities and build the capacity of the state boards, lay down national standards, and undertake technical studies. The SPCBs are the main agencies for planning and enforcement.

The Air and the Environmental Protection Acts were enacted under Article 253 of the Constitution to implement the decisions of the Stockholm Conference.

State Boards thus far were mandated to do so (where the earlier Water Act allowed them discretion to do so). As with the Water Act, the Air Act provides for the Central Government to give directions to the Central Board, and for the Central Board as well as the State Government to give directions to the State Board.

The key regulatory trigger in the Act is section 19, which allows the State Government to notify areas as "air pollution control" areas, ban fuel use, or burn other material. Section 20 empowers the State Government to issue instructions to Motor Vehicle Registration authorities regarding enforcement of emission standards laid down by the State Board. The State Board can give consent to establish or operate industry(s) in an air pollution control area.

The State Board has the power of entry and inspection, to obtain information, and to take and analyse samples. There is also a provision for appeal in a manner similar to the provisions in Water Act (Section 31). The State Board (subject to directions of the Central Government, if any) is empowered to give directions for closure, regulation, operation, etc., and stoppage or regulation of electricity, water, or any other service. The State Government is empowered to supersede a State Board for defaulting in its performance, direct all officeholders to vacate their office, and have their powers discharged by other persons directed by the State Government.

The Central Government contributes to meet the expenses of State Boards set up under the Air Act. This is different from the provisions in respect of Boards set up under the Water Act where the Central Government has levied a cess on behalf of the States to meet the expenses of the Central Board and of the State Boards.

However, the Central Government does not meet the expenses under the Air Act of State Boards set up under the Water Act performing functions under the Air Act; Article 258(2) of the Constitution allows Parliament to make laws that confer powers and impose duties on a State even in respect of matters, not in the Concurrent or State List. Article 258(3) provides that the Central Government shall pay the State Government for the extra cost of administration.

As in the Water Act, the Air Act provides that the Annual report of the Central Board is to be laid before the Parliament and of the State Board before the State Legislature.

3. The Environment (Protection) Act 1986

Like the Air Act, the Environment (Protection) Act (EP Act) was enacted in 1986 under Article 253 of the Constitution, citing the decision of the Stockholm Conference 1972 with regard to appropriate steps for "protection and improvement of the environment and the prevention of hazards to human beings, other living creatures, plants and property." It states that "it is considered necessary further to implement the decisions aforesaid in so far as they relate to the protection and improvement of the environment and the prevention of hazards to human beings, other living creatures and property."

In part, the enactment of the EP Act was a response to the Bhopal gas tragedy of 1984, which highlighted the weaknesses in the government's institutional framework to hold criminally negligent polluters (particularly foreign investors) liable. This resulted in a more centralised (or less federal) legislation than anything preceding it.

Section 3 of the Act gives the Central Government the "power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating

environmental pollution”. The role for States is not made explicit; it is implied through section 23, which allows for delegation of powers by the Central government.

The EP Act empowers the Central Government to coordinate actions by State Governments under this Act and other law relating to the objects of this Act. It is given powers very similar to those that the State Boards exercise under the Air and Water Acts. The Central Government can impose a prohibition or restriction on the location of an industry or carrying on of operations. This provision has been used to put in place Environmental Impact Assessment requirements in the country.

To exercise its powers under the Act, the Central Government has created authorities like the “State level Environment Impact Assessment Authorities” (SEIAA). Unlike the State PCBs of the Air Act or Water Act, SEIAAs are under direct control of the Central Government. Other “Authorities” created by the Central Government include:

- Central Ground Water Authority 1997 for regulation and control of ground water.
- Aquaculture Authority in 1997 to demolish shrimp farms in CRZ, Pulicat, and Chilika.
- Water Quality Assessment Authority.
- Environment Pollution (Prevention and Control) Authority for the NCR in 1998 with powers under Sections 5, 10, 11 and 19, and to monitor the progress in the Action Plan of MoE&F on vehicular pollution.
- Taj Trapezium Zone Pollution (Prevention and Control) Authority 2003 (covering areas of Agra and Bharatpur Divisions) with powers under section 5 and 19.
- The Loss of Ecology (Prevention and Payments of Compensation) Authority 1996 with powers under Section 5 for items in Section 3(2)(v)-(x), (xii).
- National Ganga River Basin Authority 2009 headed by the Prime Minister, with Chief Ministers as members and State Ganga River Conservation Authority constituted under the Chief Minister in Uttar Pradesh, Jharkhand, West Bengal, and Bihar in 2009 (with State-level Executive Committee under Chief Secretary).

The rule making power under the EP Act only vests with the Central Government, but every such Rule is to be laid before Parliament. This is distinct from other legislations which allow rule-making purely through notification.

While States have no direct power, the Central Government may delegate its powers to the State Government.

The Central Government has framed Environment Protection Rules in 1986 under Sections 6 and 25 which allow the setting and enforcing of standards for emission and discharge of pollutants.

There are other Rules under the EP Act, such as the Hazardous Wastes Rules, Bio-Medical Waste Rules, Municipal Waste Management Rules, which the SPCBs administer as entities under the EP Act, accountable to the CPCB. Of particular note is the Ozone Depleting Substances (Regulation and Control) Rules, 2000. The rules require mandatory registration of manufacturers, dealers, and users of ozone-depleting products like halons, radons, CFCs, carbon tetrachloride (CCl₄), and similar other compounds.

The EP Act empowers the Central Government to coordinate actions by State Governments.

ENVIRONMENTAL IMPACT ASSESSMENT

Section 3(1) of the EP Act gives the Central Government the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating environmental pollution. The Central Government has issued, among others, a Notification under Section 3(1) and (2) and Rule 5(3) on 14 September 2006 for accord of prior environmental clearance for the following activities (specified in a Schedule to the Notification):

- Mining, extraction of natural resources, power generation
- Primary processing
- Materials production and processing
- Manufacturing and fabrication
- Service sector/Physical infrastructure
- Construction and area development

An environmental impact assessment (EIA) study or report is intended to identify, assess and evaluate the economic, environmental and social impact of a proposed project or developmental activity. The EIA is used to predict the environmental impacts of a project in the pre-planning stage itself so that decisions can be taken to minimise any adverse impacts on the environment and is considered a critical aspect of sustainable development.

The Notification lays out the detailed process for accord of “prior environmental clearance” for new projects, expansion or modernization in respect of the activity categories specified in the Schedule. The architecture for the process is as follows:

- State-level Environmental Impact Assessment Authorities (SEIAA) constituted by the Central Government under section 3(3) of EP Act.
- Expert Appraisal Committees (EAC) set up at State level and Central level (para 4)
- All projects classified as Category A or B on spatial extent and nature of potential impacts.
- Category B projects to be approved by SEIAA on basis of State EAC recommendation
- Category A projects to be approved by the MoEF&CC based on the recommendation of the central EAC.

In March 2020, the MoEF&CC released the Draft Environment Impact Assessment Notification, 2020, which seeks to replace the 2006 Notification. The draft notification has been widely criticized, one of the significant criticism being the exemption of certain projects from public consultation.

In *Ridhima Pandey v. Union of India*, while the NGT considered climate impacts to be included within EIA’s scope, the fact is that a ‘Climate Change Impact Assessment’ would require a completely different approach and methodology than the one used for the EIA. There is, however, enough scope to amend the EIA notification (including by changing the appendices) and make the Climate Change Impact Assessment an integrated part of the prior environmental clearance for certain high impact project categories.

II. MINERALS AND COAL LEGISLATION

1. The Mines and Minerals (Development and Regulation) Act 1957

The Mines and Minerals (Development and Regulation) Act (MMDR), was enacted when the public sector was the dominant force in the economy. The National Mineral Policy 1993 brought out soon after economic liberalization marked a change in direction. It sought to encourage private investment in exploration and mining, and the MMDR Act was extensively amended accordingly in 1994, 1999 and 2010.⁹³

In 2015, the MMDR Act was amended (accompanying Rules notified) aimed at removing discretion and introducing more transparency in the allocation process.

The same amendment created District Mineral Foundations (DMF) and a National Mineral Exploration Trust (NMET). The DMF, as outlined under Section 9(B), is to be established by the State Government for the benefit of persons in districts affected by mining related operations. The NMET, as outlined under Section 9(C), is to be established by the Central Government for regional and detailed mine exploration. Licensees and lease holders are to pay the DMF an amount (capped at one-third of the royalty prescribed by the Central government), and two percent of royalty to the NMET.

The Ministry of Mines has laid down rules and regulations directed at environmental integrity in mining operations. It issued the Mineral Conservation and Development Rules (MCDR) 1988 (amended in 2011), which prescribe detailed procedures and practices to ensure safe and scientific mining, systematic development of mineral deposits, conservation of minerals and protection of the environment.

These rules mandate implementation of a Sustainable Development Framework (SDF) which prescribes detailed mining standards on scientific and environmentally friendly mining, addressing social impacts of mining, adopting scientific means of mine reclamation and closure for mining companies. Based on performance on these parameters, the ministry assigns a star rating (1 to 5 stars) to mining companies. In 2017, the star rating of mines was made a mandatory requirement.

Further, the rules lay down strict pecuniary penalties for defaulters. If any mining operation fails to adhere to scientific and efficient mining operations as laid out in the SDF, and does not achieve at least a four-star rating within two years of commencement of operations, the ministry will suspend the licence of such defaulting companies and seize their operations. The responsibility for monitoring compliance with the rules under MCDR and SDF has been vested in the Indian Bureau of Mines (IBM).⁹⁴ However, climate change is not included as an indicator for the rating.

The MCDR obliges mine operators to follow the best practices prescribed for scientific mining and submit various prescribed plans and reports to the authorised officials of IBM (and in some cases, the concerned State Governments). The IBM scrutinises these reports and - in some cases like the mining plans, schemes of mining, and mine closure plans - provides required approvals and monitors their implementation. IBM officials also undertake field inspections/studies to monitor compliance with the MCDR. During these inspections, they also provide guidance to the mines operators and officials on scientific mining, including protection of the mines environment.⁹⁵

2. Coal mining laws

Coal mining in India broadly falls under the ambit of mining legislation - the MMDR Act 1957, that classifies coal and lignite as "hydro carbons energy minerals" (First Schedule, Part A). It is also considered as a 'major mineral' along with mineral oils, iron ore, copper, zinc and the atomic minerals, listed in the Schedule.

Coal was originally reserved exclusively for the public sector. This approach was expanded upon by some coal specific legislation - the Coal Bearing Areas (Acquisition and Development) Act 1957 (CBAA), as well as the Coal Mines (Conservation and Development) Act, 1974, which were focused on transferring ownership of coal bearing land to the government, while placing some restrictions on how the government could responsibly extract this national resource. The focus on the public sector was made most explicit by the Coal Mines Nationalisation Act of

The Mineral Laws (Amendment) Act 2020 has opened the coal sector for private mining to enhance coal production.

The MCDR, 1988 has rules for mine reclamation and closure, which can become the basis to develop regulations on Just Transition.

1973, which transferred all coal mining assets to the Central Government, and later (through an amendment in 1993) allowed private ownership only for 'captive' use (i.e., for a specific end-use by the mine owner, but not for open sale in the market).

The Ministry of Coal has the overall responsibility for managing coal reserves in the country. Coal India Limited, established in 1975, is a public sector undertaking, which is involved in the production and marketing of coal. Currently, the sector is regulated by the ministry's Coal Controller's Organization.

Till 1993, there were no specific criteria for the allocation of captive coal blocks to the private sector. In 1993, the Ministry of Coal set up a Screening Committee to provide recommendations on allocations for captive coal mines. All allocations to private companies were made through the Screening Committee. For government companies, allocations for captive mining were made directly by the ministry. Certain coal blocks were allocated by the Ministry of Power for Ultra Mega Power Projects (UMPP) through tariff-based competitive bidding (bidding for coal-based on the tariff at which power is sold). Between 1993 and 2011, 218 coal blocks were allocated to both public and private companies under the CMN Act.⁹⁶

In September 2014, the Supreme Court declared all these allocations to be illegal (based in part on a 2012 report on coal block allocations by the CAG). To smooth over the disruption to supplies caused by this order, the Coal Mines (Special Provisions) Act, 2015 (CMSP Act) sought to allocate the coal mines that were declared illegal by the Supreme Court. It details the auction process, compensation for the prior allottees, the process for transfer of mines and details of authorities that would conduct the auction.⁹⁷

The CMSP Act creates three categories of mines, Schedule I, II and III. Schedule I mines can be allocated by way of either public auction or allocation. For the public auction route any government, private or joint venture company can bid for the coal blocks. They can use the coal mined from these blocks for their own consumption, sale, or other purpose specified in their mining lease.⁹⁸

The Government may also choose to allot Schedule I mines to any government company or any company that was awarded a power plant project through competitive bidding. In such a case, a government company can use the coal mined for own consumption or sale. However, the CMSP Act does not provide clarity on the purpose for which private companies can use the coal. Schedule II and III mines are to be allocated by way of public auction. Any government company, private company or a joint venture with a specified end-use is eligible to bid for these mines. In addition, the CMSP Act also provides details on authorities that would conduct the auction and allotment and the compensation for prior allottees.⁹⁹

The MMDR Act and the CMSP Act were modified most recently by the Mineral Laws (Amendment) Act 2020 to further ease the path toward private ownership of mining including removing restrictions on end-use, lowering eligibility requirements to participate in auctions, reducing the instances where prior approval of the Central Government is required and reducing barriers to transfers of rights between two private entities.¹⁰⁰

These changes were made "to double coal production in the next five years". The government has also announced a COVID-related stimulus package for the coal sector, which includes a new auction procedure and an investment of Rs. 50,000 crore to build coal transportation infrastructure. To implement the new laws and policies, in June 2020, the Government announced the auction of 41 coal blocks, which alone will have a peak production of 225 million tonnes, generating around 15% of India's coal output in 2025-26.

3. National Mining Policy, 2019

In 2017, a direction by the Supreme Court noted that “rapacious” mining is a reality in Odisha’s top mining districts (Keonjhar and Sundargarh), and observed that such mining activities have destroyed the environment and forests and caused much misery to local communities. The Court considered that there is no effective check on mining operations nor is there any effective mining policy to guide so, stating that the National Minerals Policy (NMP) of 2008 “seems to be only on paper and is not being enforced perhaps due to the involvement of very powerful vested interests or a failure of nerve”.¹⁰¹

The NMP of 2019 was published partly in response to this criticism. The Policy aims to increase the production of major minerals by 200 per cent, and reduce the trade deficit in the mineral sector by 50 per cent in seven years, through financial incentives and easing of regulatory requirements. However, it also indicates some intention to protect ecologically sensitive areas and ensure welfare of mining-affected people. Most significantly, it proposes the development of an over-arching inter-ministerial body, under the aegis of the Ministry of Mines, to institutionalise mechanisms of sustainable mining. The body will also advise the Government on rates of royalty, dead rent etc.¹⁰²

The most pertinent point in the NMP (2019) with respect to a climate legislation is the concept of Inter-Generational Equity in mineral resource exploitation. The NMP 2019 states:

“There is a need to understand that natural resources, including minerals, are a shared inheritance where the state is the trustee on behalf of the people to ensure that future generations receive the benefit of inheritance. State Governments will endeavour to ensure that the full value of the extracted minerals is received by the State. However, for assessment of inter-generational equity in respect of each mineral, a disaggregated approach is to be adopted considering aspects like reserves/resources and potential for reuse through recycling, which are relevant and suitable in the Indian context.”

This is in contrast to the 2008 Policy that stated that “conservation of minerals is to be construed not in the restrictive sense of abstinence from consumption or preservation for use in the distant future but as a positive concept leading to augmentation of reserve base through improvement in mining methods, beneficiation and utilisation of low-grade ore and rejects and recovery of associated minerals.”¹⁰³

Broadly, however, the NMP 2019 does not go far enough to address the growing environmental crisis precipitated by mining. For one, it fails to issue guidance specifying standards and outlining mechanisms for pollution monitoring in mining areas under the concerned laws. This is a particularly glaring oversight given that mining-specific guidance is missing from rules under environmental legislations.¹⁰⁴

It also falls short in providing necessary guidance to ensure effective mine closure practices. The current financial assurance for mine closure is insufficient in comparison to global estimates of costs, which are at least five to six times higher. The NMP 2019 limits itself to mentioning that financial provisions for the costs incurred in mine closure should be given high level of priority by the government.

Finally, the clearance process has largely become bureaucratic paperwork, with little focus on protecting environment and the local community or improving the quality of clearances. The NMP does little to change this.¹⁰⁵

The most pertinent point in the National Mineral Policy (2019) with respect to a climate legislation is the concept of Inter-Generational Equity in mineral resource exploitation.

NATIONAL CLEAN ENERGY AND ENVIRONMENT FUND (COAL CESS)

India imposed a cess on domestically produced and imported coal and set up the National Clean Energy and Environment Fund (NCEEF) back in 2010. This was done under the authority of the Finance Act, the umbrella budget and taxation law in India.

The policy was designed to earmark part of the revenue from the coal cess for the NCEEF that, in turn, funded research and innovative projects in clean energy. The coal cess revenue was also used for other needs, such as rejuvenation of the river Ganga.

The coal cess is levied on the dispatch of coal and lignite by coal producers and discourages coal consumption by increasing its cost. Initially, a ₹50 clean energy cess was levied on every tonne of coal produced or imported. The cess, collected by the Central Board of Excises and Customs, has been steadily increased over the years. It doubled to ₹100 per tonne in 2014, ₹200 per tonne in 2015, and ₹400 per tonne in the 2016 budget. In terms of a carbon tax equivalent, the 2016 increase in the Clean Energy Cess translates to a carbon price of around USD 4 per tonne of carbon dioxide levied at the point of production.

With the introduction of the Goods and Service Tax (GST) in India in July 2017, the Clean Energy Cess was abolished by the Taxation Laws Amendment Act, 2017. A new cess on coal production, called the GST Compensation Cess, was put in its place at the same rate of ₹400 per tonne. The GST Compensation Cess is aimed at filling in the budget deficits that State Governments faced following the GST introduction. This last round of changes effectively means continued taxation of coal production as a source of funding for various regional development needs.

With these hikes and coal production at an all-time high, the fund has become a staggeringly well-funded corpus. However, the utilisation of funds towards clean energy initiatives remain abysmal. Of ₹54,336 crore collected as part of the coal cess since its inception in 2010, less than half has been transferred to the National Clean Energy Fund so far, while only 16 percent has gone towards financing any projects. Only 32 percent of the cess collected in 2016-2017 will go to the National Clean Energy Fund. In 2019, the 42nd Standing Committee on Energy criticised the Government for diverting coal cess to compensate States for revenue loss post the introduction of GST.

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III. ELECTRICITY AND ENERGY EFFICIENCY LEGISLATION

1. The Electricity Act 2003

The Electricity Act (E-Act) was enacted to reform India's ailing electricity sector. The operational and financial inefficiencies of the State Electricity Boards (SEBs), which had been constituted post-Independence for the development of the electricity industry, had plagued the country's economic growth. These vertically integrated monopolies were in a precarious financial condition. In addition, the national energy deficit of 8.8 percent and peak deficit of 12.2 percent were no better than 1991 (when the initial policies for reform and restructuring were instituted).¹⁰⁶

All previous Acts, including the Indian Electricity Act (1910), Electricity (Supply) Act (ESA) (1948), and the Electricity Regulatory Commissions Act (1998) were repealed, to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity.

The key institutions are the Central and State Electricity Regulatory Commissions, which are responsible for tariff setting, issuing licenses, setting and ensuring standards and (specific to the CERC) coordinating inter-state transmission of electricity. In addition, the Act creates a semi-independent scientific and technical advisory body – the Central Electricity Authority. The CEA can be composed of up to 14 members, with 8 at most drawn from government employees. Its key function is to formulate the National Electricity Plan, which sets the intended direction of travel for the sector, and advise the Central Government on various aspects of electricity policy.

The CEA also advises on the National Electricity Policy, which is a document developed by the government describing measures to reach the goals indicated in the Plan. In addition, the CEA advises on technical standards, collects electricity data, and promotes research and carries out investigations related to electricity policy.

The Act aims to promote competition in the power sector by separating out the generation and distribution functions, by gradually increasing privatisation of the electricity sector, and by improving the operational practices and financial health of state-owned power companies. Its key principles are¹⁰⁷:

- (i) Reducing and removing clearance requirements for thermal power generation, captive power generation, and standalone systems for generation and distribution in rural and remote areas.
- (ii) Introduction of “open access” for any generating station to the transmission system at a fee, subject to capacity availability. Consumers can enter into direct commercial relationships with a generating company or trader. In such cases, the price of power is not regulated, but the transmission charges (called wheeling charges) and surcharge are.
- (iii) Recognising power trading as an activity for which RCs can issue a licence and fix ceilings on trading margins. Distribution licensees and State Governments do not require license to carry out trading.
- (iv) Encouraging State Governments to un-bundle State Electricity Boards (SEBs) and create companies; requiring, at the minimum, that transmission activity needs to be separated from State Electricity Boards and that all states should have RCs.
- (v) Creates an appellate tribunal at the Centre for appeals against decisions of Central Electricity Regulatory Commission (CERC) and State Electricity Regulatory Commission (SERCs).
- (vi) Strict provisions to deal with power theft.
- (vii) Tariff determination based on commercial principles to encourage competition and efficiency. Multi-year tariff formulation is encouraged with gradual elimination of subsidies, and phased introduction of ‘Time of the Day’ tariff and 100 percent metering.

The operation of the Act has seen a mixed record. The ERCs were formed to distance the Government from regulatory functions but, in practice, the selection process is highly bureaucratic, non-transparent and prone to political influences. This stems partly from the Act itself, which provides for the Government to give policy directives to the Commissions in matters of tariff determination.¹⁰⁸

The Act lays special emphasis on the promotion of renewable sources of energy and assigns the responsibility to the respective SERCs. It envisages a National Policy with distributed generation for rural electrification, and provides that no license would be required for generation and distribution in rural areas to boost renewable energy. While the Act recognizes environmental concerns as one of its objectives, it does not specify any directives to address these.¹⁰⁹

The preamble of the Electricity Act (2003) mentions promotion of efficient and environmentally benign policies.

Perhaps the most critical contribution of the ECA is the establishment of the Bureau of Energy Efficiency, responsible for spearheading the improvement of energy efficiency through various regulatory and promotional instruments.

These limitations of the Act and / or its implementation has meant continued financial stress of distribution companies. This has had negative knock-on effects for renewable energy firms, who are not being paid their dues for the power generated. This is despite the CERC mandating that renewable energy projects have a 'must-run' status, and the courts instructing the State Governments to clear these arrears.¹¹⁰

2. The Energy Conservation Act 2001

This Energy Conservation Act (ECA) enacted in 2001, empowers the Central Government and, in some instances the State Governments to¹¹¹:

- (i) Specify energy consumption standards for notified equipment and appliances.
- (ii) Direct mandatory display of label on notified equipment and appliances.
- (ii) Prohibit manufacture, sale, purchase and import of notified equipment and appliances not conforming to energy consumption standards.
- (iii) Notify energy intensive industries, other establishments, and commercial buildings as designated consumers.
- (iv) Establish and prescribe energy consumption norms and standards for designated consumers.
- (v) Prescribe energy conservation building codes for efficient use of energy and its conservation in new commercial buildings having a connected load of 500 kW or a contract demand of 600 kVA and above.

The Government(s) can also direct designated consumers to undertake specific acts to conserve energy, including designating or appointing a certified energy manager, get an energy audit conducted by an accredited energy auditor, furnish information on energy consumed and action taken on the auditor's recommendations, comply with energy consumption norms, and prepare and implement schemes for efficient use of energy and its conservation.

Apart from the powers listed above, State Governments may:

- (i) Amend the energy conservation building codes prepared by the Central Government to suit regional and local climatic conditions.
- (ii) Direct compliance with the provisions of energy conservation building codes for owners or occupiers of new commercial buildings.
- (iii) Direct, as necessary, any designated consumer to get an energy audit done by an accredited auditor.

Perhaps the most critical contribution of the ECA is the establishment of the Bureau of Energy Efficiency (BEE). The Bureau is responsible for spearheading the improvement of energy efficiency of the economy through various policy, regulatory and promotional instruments. The BEE's approach is based on self-regulation and market principles, with active participation of all stakeholders, to achieve accelerated and sustained adoption of energy efficiency in all economic sectors. This includes leveraging the support of multilateral and bilateral agencies, and the private sector. The BEE has a mix of recommendatory, regulatory, innovation (technological and financial) and capacity-building functions to execute this mission.¹¹²

The ECA was amended in 2010 to expand the scope of energy conservation norms for buildings and strengthen the applicability of energy efficiency norms for appliances and equipment. The range of commercial buildings to which such building codes applied was increased - to those with a connected load of more than 100 kW (earlier more than 500 kW), or contracted demand of more than 120 kVA (earlier more than 6000 kVA).

The amendment provides a framework within which savings on energy use can be traded between those industries who are energy efficient, and those whose energy consumption is more than the maximum set by the government. The Central

Government can issue tradable energy savings certificates to those industries whose energy consumption is less than the maximum allowed. The rules for the energy savings certificates market - commonly referred to as the Perform, Achieve and Trade (PAT) scheme - were codified by the Energy Conservation Rules, 2012.

The Act also provided for the setting up of an appellate tribunal for energy conservation which would hear appeals against orders of the Centre or the State Government(s). The amendment does away with this provision and provides for appeals against such orders to be heard by the appellate tribunal established under the Electricity Act, 2003 (thus reducing institutional duplication, which is a significant problem in India).¹¹³

IV. DISASTER MANAGEMENT LEGISLATION

The Disaster Management Act (DM Act) enacted in 2005, was in part catalysed by the Indian Ocean Tsunami of 2004. It created the National Disaster Management Authority (NDMA), headed by the Prime Minister, State Disaster Management Authorities (SDMAs) headed by the Chief Ministers, and District Disaster Management Authorities (DDMAs) headed by the District Collector or District Magistrate or Deputy Commissioner, to spearhead and adopt a holistic and integrated approach to disaster management.

The Act signaled a paradigm shift, from the erstwhile relief-centric response to proactive prevention, mitigation, and preparedness-driven approach for conserving development gains and to minimize loss of life, livelihood and property. The NDMA has the responsibility for laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster.¹¹⁴

The National Executive Committee (NEC) constituted by the Central Government assists the NDMA in its functions. It has the responsibility for implementing the policies and plans of the NDMA, and ensuring compliance with directions issued by the Central Government for the purpose of disaster management in the country. The NEC may also act as the coordinating and monitoring body for disaster management, prepare the national disaster management plan to be approved by the NDMA, coordinate and monitor the implementation of the National Policy, and lay down guidelines for preparing disaster management plans by different Ministries or Departments of the Government of India (GoI) and the state authorities.

The NDMA is mandated to deal with all types of disasters- natural or man-made. The caveat is, that emergencies requiring close involvement of the security forces and/or intelligence agencies, such as terrorism (counter-insurgency), law and order situations, serial bomb blasts, hijacking, air accidents, Chemical, Biological, Radiological and Nuclear (CBRN) weapon systems, mine disasters, port and harbour emergencies, forest fires, oilfield fires, and oil spills will continue to be handled by the National Crisis Management Committee (NCMC).¹¹⁵

The State Governments are required to set-up SDMAs, which will have their own advisory committee consisting of experts in the field of disaster management. They are empowered to lay down the State Disaster Management Policy, approve the State Plan in accordance with the guidelines laid down by the NDMA, lay down guidelines, coordinate the implementation of the State Plan, and recommend provisions of funds for mitigation and preparedness measures.

The State Government is to constitute a State Executive Committee (SEC) to assist the SDMA, which is to implement the National Plan and State Plan and act as the

The Disaster Management Act (2005) signaled a paradigm shift, from the erstwhile relief-centric response to proactive prevention, mitigation, and preparedness-driven approach.

The definition of disaster under the Disaster Management Act is wide enough to accommodate climate-induced disasters.

coordinating and monitoring body for management of disaster in the State. The SEC is empowered to coordinate and monitor the implementation of the National Policy, the National Plan and the State Plan, examine the vulnerability of different parts of the State to different forms of disasters and specify measures to be taken for their prevention or mitigation, and lay down guidelines for preparation of disaster management plans by the state and district departments or concerned authorities.¹¹⁶

It is also empowered to monitor the implementation of disaster management plans prepared by the departments of the Government of the State and District Authorities, evaluate preparedness at all governmental or non-governmental levels to respond to any threatening disaster situation or disaster, coordinate response in the event of any threatening disaster situation or disaster. The SEC also provides information to the NDMA relating to different aspects of disaster management. The National Institute of Disaster Management (NIDM), constituted by Central Government develops training modules, undertakes research and documentation in disaster management, and organises training programmes.

Keeping in view of the provision of the Disaster Management Act (2005), and the recommendations of 13th Finance Commission, the GoI has framed guidelines for administration of National Disaster Response Fund (NDRF) at the National level and for State Disaster Response Fund (SDRF) at the state level. The NDRF (under NDMA) is constituted for the purpose of specialised response to a threatening disaster situation or disaster. Every state has also been advised by the Ministry of Home Affairs to constitute an SDRF.

National Disaster Mitigation Fund is constituted for projects exclusively for the mitigation of disasters. The DM Act constitutes the State Disaster Response Fund (under SEC), District Disaster Response Fund (under DDMA), State Disaster Mitigation Fund (under SDMA), and District Disaster Mitigation Fund (under DDMA). National Database for Emergency Management (NDEM) and National Spatial Data Infrastructure (NSDI) are Geographic Information System (GIS) based databases for hazard zoning, consequence mapping and vulnerability analysis.¹¹⁷

Though the Act is an attempted centralization of disaster management decision-making, one of the most positive features of this Act is setting-up of the District Disaster Management Authority (DDMA). It underscores the district administration's role in disaster management, and establishes organic links among the disaster management authorities at various levels. The range and variety of activities envisioned for the DDMA are numerous, and it has at least some powers to carry out these activities effectively. This includes the power to "require any officer or any Department at the district level or any local authority to take such measures for the prevention or mitigation of disaster, or to effectively respond to it, as may be necessary", and the officer or department is bound to carry out the order.¹¹⁸ The biggest gap in the implementation of the Act is that many states have still not established the institutions mandated by it, such as the SDMA, DDMA and SEC.¹¹⁹

In terms of the Act's appropriateness to address climate change, the definition of disaster is wide enough – "a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area".¹²⁰ The financing institutions under the Act are also flexible enough to accommodate a wide range of disasters. In 2020, the Central Government authorised the State Governments to use ₹15,000 crore that was earmarked for disaster response for COVID response.¹²¹

Action taken by institutions under this Act have proven effective in responding to climate-exacerbated extreme weather events, particularly cyclones in Odisha.¹²²

Changes are, however, needed in how finance is allocated for disaster management. The current mechanism of using the NDRF and the SDRF mainly focuses on immediate relief, and is based on fixed allocations without taking into account how vulnerable a state is to natural disasters. States like Kerala and Odisha have made an appeal for more vulnerability-based financing, and more finance for long-term rehabilitation rather than short-term relief.¹²³ Proactive management of disasters also require much more investment in weather monitoring and prediction at the state and local levels.¹²⁴ It is not clear whether institutions under the DM Act are empowered to demand and receive such finance.

V. FOREST LEGISLATION

1. The Forest Conservation Act

The Forest Conservation Act (FCA), 1980, flows from entry 17A of List III (Concurrent List) of the Seventh Schedule. Under the Act (Section 2), the State Government can de-reserve or put forest land to non-forest use only with the Central Government's prior approval. A forest advisory committee (FAC) is created in the MoEF&CC (erstwhile MoEF), to advise the ministry on grant of clearances, and also on matters of conservation of forests (Section 3). The Act empowers the Central Government to frame Rules to operationalize the provisions of the Act, which shall be laid before Parliament (Section 4).

The Rules of 2003 (in supersession of the Rules of 1981, and as amended in 2004) made in pursuance of the FC Act (1980) provide that every user agency wanting to use forest land for non-forest use must apply to a nodal officer of the State Government concerned. The State Government after being satisfied with the application and reasons for diversion, will recommend the proposal to the Central Government for its prior approval.

The MoEF&CC has also issued guidelines from time to time relating to eligibility for grant of approval to different non-forest activities, including "general approvals" and "standard conditions".

The Supreme Court of India has been instrumental in forest management. In Writ Petition (Civil) 202 of 1995 titled **T.N. Godavarman Thirumulpad v. Union of India & Ors**, on September 26, 2005, the Supreme Court made the following observation:

"Natural resources are the assets of entire nation. It is the obligation of all concerned including Union Government and State Governments to conserve and not waste these resources. Article 48A of the Constitution of India requires the State shall endeavour to protect and improve the environment and to safeguard the forest and wildlife of the country. Under Article 51A, it is the duty of every citizen to protect and improve the natural environment including forest, lakes, rivers and wildlife and to have compassion for living creatures."

As an outcome of some proceedings during the case, the MoEF& CC issued a notification in April 23, 2004, constituting a "Compensatory Afforestation Funds Management and Planning Authority (CAMPA)" as an authority under Section 3(3) of the Environment (Protection) Act, 1986. The Court in its judgement of September 26, 2005, affirmed that the payment to CAMPA under the notification dated April 23, 2004, is constitutional and valid, and the various clauses of CAMPA should be suitably modified in terms of the judgment within a period of one month.

2. The Compensatory Afforestation Fund Act

The Compensatory Afforestation Fund Act, 2016 formalised the CAMPA. It provided that there shall be a National Compensatory Afforestation Fund at central level,

At least 80% of the CAMPA funds have to be used for activities that will have climate co-benefits, including large-scale sequestration of carbon in forests.

The Forest Rights Act recognizes the rights of forest-dwelling communities in the conservation and management of forests and wildlife.

and a State Compensatory Afforestation Fund at the state level. Respectively, there will be a National Compensatory Fund Authority and a State Compensatory Fund Authority.

All payments towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, net present value, catchment area treatment plan, or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the FC Act (1980), or due under the Wild Life (Protection) Act (1972), are to be credited to the State Fund, and 10 percent of it is to be transferred to the National Fund.

The State Fund is to be used for artificial regeneration (plantation), assisted natural regeneration, forest management, forest protection, forest and wildlife related infrastructure development, wildlife protection and management, supply of wood and other forest produce saving devices, and other allied activities in the manner as may be prescribed. The interest amount may be used for meeting the expenses of the State Authority. The National Authority is to approve annual plan of operations of the State Authorities for the purpose within three months of receipt.

The National Fund is to be used for meeting the expenses of the National Authority or for a "scheme", including any institute, society, centre of excellence in the field of forest and wildlife, pilot schemes, standardization of codes and guidelines, and such other related activities for the forestry and wildlife sector. The annual report of the National Authority shall be laid in Parliament, and of the State Authority in the State Legislature. The fund accounts are required to be audited by the CAG.

The Central Government, in consultation with the State Governments, can make rules for the management of the National Fund by the National Authority and of the State Fund by the State Authorities. It may also make rules for the conduct of business by the National and State Authorities and their organs and give directions in writing to the National Authority and each State Authority, as it may think necessary.¹²⁵

The Compensatory Afforestation Rules were notified in 2018. They stipulate eligible activities, specifying that at least 80 percent of the fund shall be used for activities like assisted natural regeneration, artificial regeneration, silvicultural operations in forests, protection of plantations and forests, pest and disease control in forest, forest fire prevention, soil and moisture conservation works in the forest, voluntary relocation of villages from protected areas, and improvement of wildlife habitat as provided in the approved wildlife management plan.¹²⁶ The rules have drawn criticism for sidelining the Gram Sabhas (local governments) in favour of state forest bureaucracies. This is considered to be in contravention to the spirit of the Forest Rights Act (FRA) 2006, as discussed below.

3. The Forest Rights Act

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (also referred to as the Forest Rights Act), was enacted to recognise the rights of forest-dwelling communities, and to encourage their participation in the conservation and management of forests and wildlife.

The Act outlines 12 forest rights which include the right to live in the forest, to self-cultivate, and to use minor forest produce which has been traditionally collected within or outside village boundaries, even in protected areas. Activities such as hunting and trapping are prohibited.

The Gram Sabha is empowered to initiate the process of determining the extent of forest rights that may be given to each eligible individual or family. To some extent, this is diluted by the Act also involving Panchayati Raj officials (including sarpanches

etc.) and the officials of the forest department in the process. The Gram Sabha is also empowered to protect the wild life, forest and biodiversity and to ensure that their habitat is preserved from destructive practices affecting their cultural and natural heritage.

A significant feature of the Act was an expansion of protected persons or beneficiaries to include 'other traditional forest dwellers'. In order to qualify for forest rights under the Act, 'other traditional forest dwellers' must prove that they have primarily resided in and depended on the forest or forest lands for bona fide livelihood needs since the year 1930.¹²⁷

VI. ENVIRONMENT COURT

The National Green Tribunal (NGT) was established in the year 2010 under the National Green Tribunal Act of 2010 to dispose of civil cases relating to environmental protection and conservation of forests and other natural resources, including enforcement of any legal rights related to the environment. The Act was enacted through the Parliament of India, under the provision of Article 21 of the Constitution of India, which emphasises the right to live in a clean and healthy environment.

The NGT arose from a recommendation in the Law Commission of India (186th Report 2003) to establish environmental courts in India. This recommendation was based on a review of the technical and scientific problems that came before the courts and the inadequacy of judicial knowledge on the scientific and technical aspects of environmental issues. The NGT replaced the existing National Environment Appellate Authority of the erstwhile Ministry of Environment and Forest (MoEF). One of the purposes of establishment of the NGT was also to ease the burden on the normal courts on environmental matters.

As per provisions of the NGT Act (2010), the Tribunal has the 'jurisdiction over all civil cases where a substantial question relating to environment (including enforcement of any legal right relating to environment) is involved and such question arises out of the implementation of the enactments specified in Schedule I'. These include, the Water (Prevention and Control of Pollution) Act (1974), the Water (Prevention and Control of Pollution) Cess Act (1977), the Forest (Conservation) Act (1980), The Air (Prevention and Control of Pollution) Act (1981), The Environment (Protection) Act (1986), the Public Liability Insurance Act (1991), and the Biological Diversity Act (2002).

Each bench of the NGT is supposed to have both judicial and expert Members. However, the Tribunal being a 'quasi-judicial body' has limited power. It has authority similar to law-enforcement agencies, but it is not like a normal court. The courts have the power to adjudicate all types of disputes, but the NGT has the power of enforcing laws on administrative agencies. NGT's actions may be appealed to a court of law. For example, in cases of crime and other offences, NGT can only issue recommendations for punishment, depending on the nature and gravity of the offence. However, such punishment can be challenged in a court of law, which is the final authority.¹²⁸

The NGT has developed a jurisprudence over the past decade that has challenged the decision making by the Government regarding environmental clearances and monitoring. This has resulted in conflict with MoEF&CC, as evidenced by the recent development of non-filling bench membership, reluctance to authorize appropriate staff, infrastructure, and resource support by the MoEF&CC.¹²⁹

As per provisions of the NGT Act, the Tribunal has the jurisdiction over all civil cases where a substantial question relating to environment exists.

CLIMATE-RELEVANT POLICIES IN INDIA

Nationally Determined Contribution

India's first NDC (submitted in 2015 along with the signing of the Paris Agreement) has three quantified targets:

- To reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 level.
- To achieve about 40 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 with the help of transfer of technology and low cost international finance including from Green Climate Fund (GCF).
- To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.

India is on track to achieve the first two, but not on track to achieve the third. In addition, at the UN Secretary General's Climate Action Conference in 2019, the Prime Minister announced a target to install 450 GW of renewable energy capacity. This is in line with projections of the electricity mix in 2030 by the Central Electricity Authority (CEA).

National Action Plan on Climate Change

The NAPCC has eight missions that deal with climate change adaptation and mitigation:

- (i) National Solar Mission: Aims to promote the use of solar energy in India by making it competitive with fossil fuels. It promotes activities to encourage research and development to improve efficiency and affordability of solar power and energy storage systems. Sets a target for 100 GW of solar capacity by 2022, which is likely to be achieved.
- (ii) National Mission for Enhanced Energy Efficiency: Aims to improve energy efficiency of domestic, commercial and industrial sectors by creating an enabling policy regime and encouraging innovative business models for improving energy efficiency.
- (iii) National Mission for Sustainable Habitat: Aims to encourage sustainable urban planning in India with the help of policy, infrastructural and research interventions in sectors such as buildings, waste management, water resources and transportation.
- (iv) National Water Mission: Aims to ensure sustainable water supply by conserving water, minimising waste and ensuring equitable distribution of water resources throughout India. Among its more quantified targets are increasing water use efficiency by 20 percent, and creation of a comprehensive water data base in public domain and assessment of impact of climate change on water resources. Neither of these are reported as achieved.
- (v) National Mission for Strategic Knowledge on Climate Change: Aims to create a comprehensive knowledge system that informs and supports climate change action in India with the help of research and communication-based actions. Not much progress have been made by this mission.
- (vi) National Mission for Sustainable Agriculture: Aims to improve sustainability, productivity, remuneration and climate resilience of agriculture in India. These goals will be achieved by capacity building, research, infrastructural and institutional interventions in the Indian agricultural sector.
- (vii) National Mission for Green India: Aims to protect, enhance and restore forests and respond to climate change with appropriate adaptation and mitigation activities. It plans to increase green cover and focuses on multiple ecosystem services—especially biodiversity, water, biomass, mangroves, wetlands and critical habitats, with carbon sequestration as a co-benefit. The target is to increase forest/tree cover on 5 million hectares of forest/non-forest land and improve the quality of forest cover on another 5 million hectares by 2025, which is not on track.

(viii) National Mission for Sustaining the Himalayan Ecosystem: Aims to enhance understanding of climate change impacts and adaptations required in the Himalayas. The information obtained from this mission will feed into policy formulation for suitable management practices for the Himalayan ecosystem.

The NAPCC in its current form is broad and lacks specificity. While the solar, energy efficiency, and forestry missions include mitigation components in the form of quantified targets (and thus have been able to draw investments), missions on sustainable agriculture, water, and sustainable Himalayas do not.

Missions dealing with sustainable habitat, water, agriculture, and forestry are advisory, and have been slow-moving. Several ongoing activities are in principle aligned with the objectives of the sustainable habitat and agriculture missions, but there has been no official announcement of their integration with the missions. For instance, the AMRUT mission has elements similar to those of the National Mission for Sustainable Habitat; the major difference is AMRUT's approach, which is more sectoral.

Similarly, State Action Plans on Climate Change (SAPCC) face many constraints and challenges in their preparation, including limited understanding of climate change by government officials and lack of resources and time. They are not as yet implementable plans. Climate adaptation strategies given in SAPCCs are broad generalizations, giving the impression of a wish list.

Specific, result-oriented action plans with clear-cut expected outcomes are missing. There is no demarcation between business-as-usual and additional activities. Monitoring and evaluation of implementation are poor. The Centre has not allocated any fund to SAPCCs; instead, State Governments have been advised to arrange funds themselves through Central Government schemes, such as like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGs). This has resulted in waning interest in SAPCCs in the states.

In a nutshell, the NAPCC and SAPCC have become inadequate plans to improve the capacity to implement climate change responses or enhance the ambition. They both are ill-suited institutionally to advance the climate agenda in the country.

National Adaptation Fund

The National Adaptation Fund for Climate Change (NAFCC) was established in August, 2015 to meet the cost of adaptation to climate change for the State and Union Territories of India that are particularly vulnerable to the adverse effects of climate change. The Government has set up a budget provision of ₹350 crores for the year 2015-16 and 2016-17, with an estimated requirement of ₹181.5 crores for financial year 2017-18 for NAFCC. The projects under NAFCC prioritizes the needs to build climate resilience in the areas identified under the State Action Plan on Climate Change (SAPCC), and the relevant missions under the NAPCC.

Considering the existing arrangement with National Bank for Agriculture and Rural Development (NABARD) as National Implementing Entity (NIE) for Adaptation Fund (AF) under Kyoto Protocol and its presence across the country, NABARD has been designated as National Implementing Entity (NIE) for implementation of adaptation projects under NAFCC. Under this arrangement, NABARD would perform roles in facilitating identification of project ideas/concepts from State Action Plan for Climate Change (SAPCC), project formulation, appraisal, sanction, disbursement of fund, monitoring & evaluation and capacity building of stakeholders including State Governments.

The Fund is considered to be grossly inadequate to meet India's climate challenges. In the 2021-22 budget, the amount has been reduced to just ₹40 crores.

National Mission on Transformative Mobility and Battery Storage

The National Mission on Transformative Mobility and Battery Storage was launched in 2019, to recommend and drive strategies for transformative mobility, and support Phased Manufacturing Programmes (PMP) for electric vehicles (EVs), EV components and batteries. A PMP is to be launched to localize production across the entire EV value chain. The National Mission on Transformative Mobility and Battery Storage will determine the contours of PMP, and will finalise the programme detail.

The value addition detail that can be achieved with each phase of localisation, will be finalised by the Mission with a clear Make in India strategy for the electric vehicle components as well as battery. The Mission will coordinate with key stakeholders in Ministries/ Departments, and State Governments to integrate various initiatives to transform mobility in India.

A phased roadmap for battery manufacturing at giga-scale will be considered with an initial focus on large-scale module and pack assembly plants by 2019-20, followed by integrated cell manufacturing by 2021-22. The Mission shall formulate details of the PMP for batteries. The Mission will ensure holistic and comprehensive growth of the battery manufacturing industry in India.

The Mission will prepare the necessary roadmap that will enable India to leverage its size and scale to produce innovative, competitive multi-modal mobility solutions that can be deployed globally in diverse contexts. It will also provide the roadmap for transformative mobility in “New India” by introducing a sustainable mobility ecosystem and fostering Make-in-India to boost domestic manufacturing and generate employment in the country.

The existing climate policies/plans do not provide an integrated vision and action plan. They are sectoral in nature with limited legal support. Overall, of all the climate policies/plans, what seems to work are plans with clear physical targets and scope for investments and business opportunities. Plans with broad targets/no-targets and less scope for investments are faltering. Also, if a plan is at the core of the parent institution like the 100 GW solar plan is at the core of MNRE, the success is high. So, targets, investments, and ownership seem to be critical factors for the success of climate policies/plans.

Source:

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VII. CONCLUSION

From the review of various environmental legislations and authorities, it is clear that the Constitutional authority to enact a framework legislation on climate clearly exists. There is a strong existing precedent of using international agreements to enact domestic environmental legislation, which makes enactment of a national framework legislation straightforward under Article 253 of the Constitution. Alternatively, a national framework legislation is possible under the residuary powers reserved for the Centre under Article 248.

We also have precedent for domestic laws targeted at global (rather than purely domestic) environmental issues, such as the Ozone Depleting substance (Regulation and Control) Rules, 2000.

All existing laws delineate responsibility between Central and State Governments. Generally, the Central Government is entrusted with building capacity, setting national targets and standards, coordination of states, technical studies, and providing oversight, while State Governments are entrusted with planning, execution, enforcement, and coordination of resources on the ground.

There is a wealth of existing Indian legislation which is climate-relevant. On paper, these have created bodies and rules which are sufficiently broad to include climate policy in their scope. For example:

- Section 2 of the EP Act (1986) defines a pollutant as such “any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to environment”. The same Act empowers the Central Government to “take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution” including “planning and execution of a nation-wide programme for the prevention, control and abatement of environmental pollution”. Section 2 is, therefore, broad enough to include climate pollutants within its scope.
- The Electricity Act includes environmental protection as an objective, and requires the Government to regularly publish a National Electricity Plan (which could easily become a basis for ambitious carbon emissions reduction from the electricity sector). The Central and State Electricity Regulatory Commissions constituted under the Act have a clear mandate (and have issued regulations) to support renewable energy (including must-run status), Renewable Energy certificates, and Renewable Purchase Obligations (RPOs).
- The beginnings of a national carbon market exist in the Perform Achieve and Trade scheme for energy efficiency, and the tradable Renewable Energy Certificates.
- The strong comprehensive institutional framework set-up by the Disaster Management Act is capable of addressing climate change, with some revisions. These include, making its climate mandate more explicit and better consideration of slow onset events such as coastal erosion. With these changes, the disaster management framework can be entrusted the responsibility for the National Adaptation and Resilience Plan.
- Coal and mining laws in the country have some scope for climate orientation, including the institution of a green cess on coal, provisions of coal mine closure, considerations of a just transition, the Sustainable Development Framework for mining, and the consideration of inter-generational equity in the National Mineral Policy (2019).

There is a strong precedent of using international agreements to enact domestic environmental legislation under Article 253 of the Constitution to address local and global pollutants.

While India has existing 'climate-related laws' broadly defined, none of them have ambitious climate change action as a goal. Climate change is 'incidental and peripheral' in these legislations.

- Forest laws already have an implicit carbon tax in the form of compensatory afforestation, and in principle a fund to enhance carbon sink.

However, while all these legislations are climate-relevant, climate change cannot be comprehensively addressed under the existing laws. This is because climate change is not explicitly within the scope of these laws. Significant amendments would be required to make these laws climate-compliant.

For example, the Electricity Act has the elements of becoming more renewable friendly. Similarly, the MMDR Act can be better utilised to drive low-emissions mining. The guidelines or rules under the forest laws can be amended to prioritise growth of carbon stock and sinks. The guidelines on EIA can be expanded to include assessment of climate impacts (or a Climate Impact Assessment).

However, none of these Acts currently has the framework to mainstream climate change at the institutional level. Each of these legislations takes a different approach to the sharing of powers and duties between Central, State and local governments. This has resulted in the same body – such as a pollution control board – having different mandates, with a lack of certainty as to which of these mandates is relevant to a given issue. There is a similar lack of clarity on whether forest governance is now vested primarily in *Gram Sabhas* or state forest bureaucracy.

This is a particularly difficult challenge in the context of climate change, which is equally a problem of air pollution, water management, environmental governance, and forest preservation, with local, national and global aspects. In the absence of a clarification regarding the role of different levels of the Government, climate policy risks getting caught up in disputes over decision making territory.

Overall, while India has existing 'climate-related laws' broadly defined, none of them have ambitious climate change action as a goal. Climate change is 'incidental and peripheral' in these legislations.

4

EXPERT VIEWS ON THE NEED FOR AND DESIGN OF A FRAMEWORK CLIMATE LEGISLATION

- Pushing climate ambition through litigation
- Modifying existing laws to address the climate crisis
- Do we need a new climate law?
- Key elements of a framework climate legislation

CHAPTER 4:

EXPERT VIEWS ON THE NEED FOR AND DESIGN OF A FRAMEWORK CLIMATE LEGISLATION

Experts were lukewarm on the prospect of litigation (in the absence of legislation) being the primary driver of climate ambition in India.

WHILE THE literature review has illustrated the models available for India to develop a strong body of climate law, it is still an open question of whether a framework climate legislation would be suitable to the Indian context (or alternatively, how to design one that would be suitable). To get the legal and environmental experts' views on this issue, we created a survey to elicit their opinions on existing environmental law, on India's need for a climate legislation, and the desired design elements for such a legislation. We followed the Chatham House Rule during the survey. A total of ten experts were approached, of which six participated in the survey.

I. PUSHING CLIMATE AMBITION THROUGH LITIGATION

Mirroring the first chapter of this report (on litigation), we elicited expert views on whether current general principles of Indian constitutional, administrative and environmental law, as applied by Indian courts, can address the climate challenge. This was intended to get a sense of whether ambitious climate policy is possible through litigation, which has happened to some extent in jurisdictions such as the Netherlands and Pakistan. The principles suggested in the questionnaire were the Right to Life in Article 21 of the Constitution, administrative norms around environmental impact assessment, and environmental principles such as the public trust doctrine, the polluter-pays-principle, or the principle of sustainable development.

A common theme among responses is that there is very little preventing these principles from being re-purposed by Indian courts in the context of climate change. Experts pointed to existing decisions of the NGT and other courts which refer to climate change as a kind of environmental issue (which we reviewed in Chapter 1). They also referred to the activist reputation of the Indian judiciary on environmental issues.

One expert considered that climate litigation in India has been emerging even without a law – it is “not as structured or detailed or nuanced as you would want it to be, but there has been activity and discussion around it even without a legislation.” The principles referred to above are “never completely sufficient, but there have been some developments based on them.”

However, experts were lukewarm on the prospect of litigation (in the absence of legislation) being the primary driver of climate ambition in India. One expert

opined that “courts are very good at pronouncing a right (such as a right to be protected from climate change), but the execution of them is still an issue.” While there is no inherent problem with these legal principles, “when it comes to climate change, the people are at the mercy of the state to act in accordance with these principles. This needs to change.” Another concurred that while the legal framework does provide hooks to take into account climate considerations, there is “certainly scope for more defined legal spaces that acknowledge climate change as a major concern for India.”

This was bolstered by the view that litigation on climate priorities, even the kind currently seen in Indian courts, “is more useful when there is legislation in play, and there is a concrete way to hold authorities to account, exercise their statutory duty and ask for a specific relief.” Otherwise, it is felt that the directions asked of the court are very wide-ranging and vaguely worded, worsened by the courts not necessarily having the expertise to design specific relief.

Few experts felt strongly that some of the principles referred to above are too limited to apply to climate change. They particularly criticized the ‘polluter pays’ principle because it presumes that “restitution is possible in the case of climate emergency. Payment for environmental harm will encourage a business-as-usual approach to natural resource exploitation, and is not useful here.” They were also critical of the principle of sustainable development because it “does not take into consideration the disproportionate distribution of impacts, vulnerability, costs, and benefits” and is indifferent to intra- and inter-generational inequities.

II. MODIFYING EXISTING LAWS TO ADDRESS THE CLIMATE CRISIS

We asked experts whether existing environmental and natural resource legislation needs modification to address climate change. Regarding the Air Pollution Act, few experts felt that its requirement for an area to be notified as an air pollution area to trigger its provisions is a “fundamental problem which needs reform.”

The success of the Act depends on what is defined as effluent or a climate pollutant. One expert felt that while currently “we are simply issuing licenses; we need to start with tolerable levels of pollutants and then work backwards to set the number of licenses.” A sectoral approach to distribution of pollutant permits is needed.” This was echoed by another expert on the Environment Protection Act “the EP Act needs to be transformed from a standard-setting mode to an objective-oriented legislation focused on environmental quality, one of these objectives being limiting climate change.”

While not disagreeing that changes are required, a different expert noted that the wide powers given to the Central Government under the EP Act mean that changes can be made through notifications; amendment is not required.

It was felt that the Pollution Control Boards are understaffed and under capacity and need more guaranteed financing if they are to be given additional responsibilities in combating climate change. One expert offered that “we need to look at innovative enforcement - existing institutions such as panchayats or State Human Rights Commissions or disaster management committees should be considered as third-party assessors, and their functioning can be improved to perform this role.”

Pollution Control Boards are understaffed and under capacity and need more guaranteed financing if they are to be given additional responsibilities in combating climate change.

The Electricity Act (among others) does not address the increasing need for limits on production or consumption.

One expert referred to an affidavit filed a few years ago by the MoEF&CC, which placed on record that current capacity was sufficient to monitor each project for compliance with environmental regulations once every four and a half years. This is a “ridiculous situation [but] one which is down to political will and organisational leadership.”

Finally, some experts opined that the procedures for sample collection and standard of evidence to prove air pollution need to be modernized and that State Governments and pollution control boards need to be empowered to impose the more stringent penalties under the Environment Protection Act (rather than being limited to those under the Air Act).

On the MMDR Act, one expert felt that “sectoral caps on mining are required, without exceptions carved out for Schedule areas of the north-eastern states. A phase-out of coal power plants is in order, including those that import coal.” This was supported by another expert’s view that more sustainable district-level mining plans are needed, in accordance with guidelines set out in the Supreme Court’s *Deepak Kumar judgment*.¹³⁰

The underlying explanation for why such guidelines are not currently followed was offered by one expert’s question/observation on sand mining - “new guidelines for sand mining were published last year by the Ministry of Environment, but will it have ownership from the Ministry of Mines?” Similarly, the government “needs to stop facilitating approvals for coal mining (which is a big part of the COVID stimulus package); there is a big disconnect between the stated aim of reducing coal in the power mix and these kinds of policies.” This indicates a lack of coordination, with mixed incentives for different policymakers emanating from different legislations.

A similar lack of coordinated thinking was felt with respect to the Electricity Act, with one expert noting that the mechanism for renewable purchase obligations is largely on paper and not uniformly enforced. Worse, effective subsidies for coal-fired electricity continue which means that “while states which have capacity are moving toward renewables, that will be undermined if we keep incentivizing coal.”

A broader version of this view was offered by an expert who opined that “there is a lack of comprehensive energy and environmental policy.” They saw this as having negative implications even if the green energy transition succeeds - “for example, a long-term implication of solar power is the generation of a lot of e-waste, which needs integration of producer responsibility into solar policies. Such policy requires a law to mandate cross-institutional coordination.”

One expert felt that the Electricity Act (among others) does not “address the increasing need for limits on production or consumption.” They considered that “there is a massive inequity within the country between where power is generated and where it is consumed”, and that there is a “need to move away from the idea that it is okay to consume unlimited electricity as long as you can pay for it.”

Finally, expert views on forest laws as they currently exist were generally positive, with one expert stating that “the Forest Rights Act is the best legislation India has had so far [because] it completely overturns the centralized, bureaucratic mindset and the idea that exclusion is the way to protect natural habitat. It has been able to imagine consumption limits and norms around sustainable usage which are rarely found in other parts of the economy.” Another expert shared the view that forest laws are probably the most effective of existing legislations, adding that “it is often said that no forest clearance has ever been denied, but this is not quite true because courts have stepped in the way of executive decisions.”

In terms of improvements needed to forest laws, one expert considered that “the Forest Conservation Act has been dismantled because of the [more recent] Compensatory Afforestation Act, on the presumption that forest species are interchangeable (which is especially not true in terms of carbon sequestration).”

This was echoed by an expert who observed that the forest target in India’s NDC needs additional money and land and opined that the kinds of activities specified in the compensatory afforestation rules need to be linked to the NDC target. While the rules “do address forest regeneration, additional clarity is needed, because there is a big grey area around what additional cover is needed and what the starting point/date is.”

One expert noted that “the Forest Rights Advisory Committee and Expert Advisory Committee are currently without legal footing; they are currently ad hoc creations, so their analysis is disregarded. They should be given sufficient space to function as independent regulators.”

III. DO WE NEED A NEW CLIMATE LAW?

Regarding the need for a climate law (as opposed to policy), we asked experts how they would frame climate change in India as a legal problem. Experts were requested to select the one or two most applicable options from the list of options provided or offer an alternative framing.

The most selected option was that it is essentially an issue of ‘regulating climate pollutants’. ‘Climate-exacerbated disaster risk management’, and ‘protecting national resources’ were highlighted by two experts each, with one highlighting the Himalayas, mangroves and Western Ghats as critical fragile national resources. Two experts highlighted ‘equitable access to development’, but both considered that a law is not the best way to address this concern. ‘Ensuring long-term policy stability’ (in the sense that a law is binding on successive governments) received one vote.

One option that we offered – ‘strengthening national security’ – received no votes, which somewhat supports the idea that ‘securitization’ of issues like climate change is an approach that can backfire on policymakers.¹³¹ One expert offered a new framing – ‘ease of doing business’, on the twin basis that it is a current political priority and that the energy transition cannot occur without favourable policy for certain business sectors or technologies, particularly renewable energy.

Finally, we asked experts a yes-or-no question on the need for a framework climate legislation. There were some strong views on either side, with one expert against such a legislation because “we are an over-legislated state”. Few experts felt that while an overhaul of environmental and various sectoral legislation is needed, it is “better to learn from mistakes in implementing existing laws and amend them” rather than introducing a new framework.

Another expert opined that “we do not really need a climate-focused legislation in India, nor do we really need any major amendments to existing laws to prioritise climate mitigation.” Instead, they considered that climate change should be one of the many dimensions that should be factored into the implementation of any law/policy/programme (along with air pollution, energy access, employment, energy security, gender inequities, biodiversity etc.).

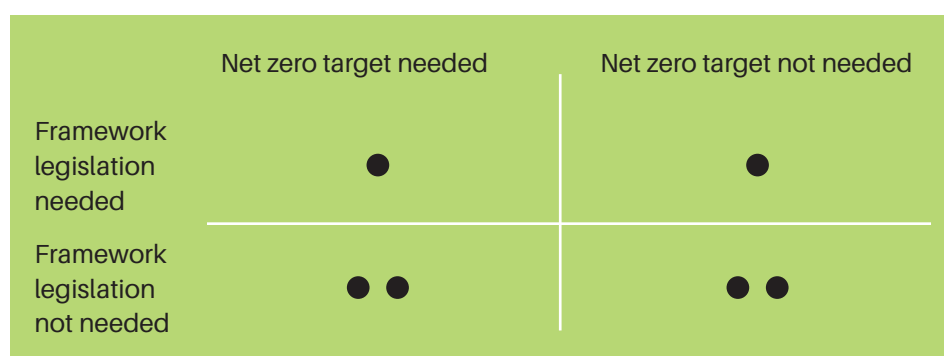
The opinion was divided on the need for a framework climate legislation.

The strongest responses were in favour of no new institutions, and some in favour of new policy coordination institutions.

The contrary view is that “existing laws do not give protection against climate change; it is a phenomenon that needs some kind of coordinated action which is difficult to achieve purely through amendment. The citizen’s interest is not centered in climate action right now; this needs to be changed through legislation.” In addition, one expert considered that “a separate climate law is a way to use the courts more meaningfully. Otherwise, such litigation will be based on India’s international obligations, action plans etc. These are policy commitments, which are not the strongest route to enforceable obligations.”

IV. KEY ELEMENTS OF A FRAMEWORK CLIMATE LEGISLATION

Figure 3: Range of expert views on need for a separate climate legislation and net zero target



Apart from the need for a climate legislation, we asked experts for their views on the design elements of such a legislation. Experts who did not consider that new legislation was needed offered suggestions on an appropriate design if new legislation was decided on as the way forward.

On whether this law should set defined targets, including but not limited to ‘net-zero by 2050’ (which is a popular feature in many emerging climate legislation), there was a mixed response. Few experts were in favour of setting such targets, one of them holding the view that despite the reality of its low per capita emissions, India should take on the mantle of climate leadership. Two experts did not feel a strong need for such targets, but opined that if such targets were set, enshrining them in law would be the best way to achieve them.

One expert was firmly against such targets, considering that India is not at the stage of verifying and authenticating national targets because data collection is at a very early stage. He felt that if targets are prescribed in such a situation, exceptions or workarounds, or loopholes are inevitable. Few experts were in favour of limiting target setting to NDCs under the Paris Agreement.

Another expert added that “accomplishing a net-zero target would require a lot of things to fall in place including appropriate institutional structures, sector-specific targets which add up to net-zero, creating trade-offs to off-set unavoidable GHG emissions etc.” and that India is not necessarily in a position to undertake all these calculations, leave alone make it part of a statutory mandate. Even if such a target was included in a national law, this expert did not consider that it would be necessarily enforceable in courts. This is because it may be couched in language

which is aspirational, or because courts may decide to stay out of what would be predominantly economic policy decisions best left to the government of the day.

On economy-wide versus sector-specific targets, again, there was a wide divergence in opinions. Two experts considered that sectoral targets are better because they are better to monitor, while economy-wide targets create overlap and lack ownership. One expert suggested designing the law to allow dynamic sectoral target-setting rather than fixing targets in the law itself. Two experts preferred economy-wide targets because they were easier to set, while sectoral targets require more capacity and expertise. One expert did not take a view either way.

On new institutions, experts were given a list of types of institutions to pick from, with a request to indicate the one or two kinds of institutions they felt were currently lacking. They were also given an option to suggest other kinds of institutions or that no new institutions were required.

The strongest responses were in favour of no new institutions, and some in favour of new policy coordination institutions. One expert clarified that while new policy coordination institutions could be useful, no new policy setting bodies are needed. One of the suggestions for a new policy coordination institution was for a National Climate Change Commission along the lines of the UK's, but with a broader range of powers, including regulatory and financial.

One expert who was agnostic on the idea of a climate law nevertheless saw value in a policy coordination institution. However, they emphasised that this should not be "one that meets every six months, it has to have staff and employees dedicated full time to this work. Otherwise there is no institutional memory, people are just pulled in ad hoc three weeks before the annual international climate conference."

One expert was open to the idea of a new independent climate finance institution, but specified this should be a market-based institution and that they are against the creation of any new climate funds.

The idea of new courts or tribunals was uniformly rejected, with two experts specifying that this option in particular should be avoided. One expert was in favour of new institutions for public consultation, citing the weakening of consultation norms in Environmental Impact Assessments and the paternalistic approach observed in the current practice of public consultation.

On whether the law should be a national or several sub-national laws, all the experts expressed the need for a national law, with one specifying that it was within the competence of Parliament under the residuary powers conferred upon it Article 248 of the Constitution. However, three of the experts emphasized that this national law should take a hybrid approach that allows for a strong role for both Central and State Governments. One expert who was skeptical about the prospects for a climate law in general considered that an omnibus climate law is likely to encroach on several subjects within the States' legislative competence. To make such a law work would need well thought-out delegation, or a request from several States to the Centre (which happened in the case of the 1974 Water Act).

One of the experts advocating a hybrid approach opined that it is impossible in India to have a purely centralized policy. They felt allowing purely localized policies generate outcomes that are too variable to address the challenge. Therefore, it is better to set a floor for climate ambition through central legislation, establish principles and finances through this central law, and then allow states to develop more policies attuned to their own demands. They also suggested having states compete to access central resources, based on increasing their level of ambition.

While the existing environment protection laws can be amended to limit climate pollutants, the powers and capacity of the regulators will have to be expanded.

A 'competitive federalism' in which central legislation sets a common minimum standard and provides flexibility to states to develop more ambitious state-specific strategies will fit well with constitutional provisions.

This vision of 'competitive federalism' was echoed by another expert who added that while they are not confident of states' capacity to implement something like this on their own, a central legislation that sets a common minimum standard and is flexible enough for states to come up with state-specific strategies going beyond the central level of ambition could work. They believed that a central legislation is necessary because India has got into the habit of having central environmental legislation; a purely state-driven approach would cut against the existing framework.

V. CONCLUSION

The key takeaways from expert views are:

- While general principles of law already applicable in Indian litigation have been adapted and can further be adapted to address climate change, a purely litigation-driven approach to climate ambition is not sufficient.
- Existing environment protection laws are capable of being utilized to limit climate pollutants. However, the powers and capacity of regulators need to be expanded (including through innovative use of authorities under other non-environment-specific laws), and a shift is needed away from issuing conditional licenses and toward establishing strategic limits on pollution.
- Existing legislations set up competing incentives, which result in contradictory government policy. Hence, despite the publication of guidelines for sustainable mining by the Ministry of Environment, it is uncertain whether they will be fully implemented by the Ministry of Mines. Despite the Electricity Act aiming to make the market more competitive and diversified by encouraging renewables, government policy continues to encourage coal. Better policy coordination is essential, which needs a new framework (but not new institutions, as we clarify below).
- There is disagreement over whether India needs a framework climate legislation. This is an expected disagreement because of the twin reality that India has many existing legislations that can incorporate climate priorities, but also that these legislations are not currently in practice being sufficiently utilized to address those priorities. If a new framework legislation is the way forward, it needs to be carefully tailored to address the problems associated with climate change policy, which are clearly outside the capacity of existing legislations to address. For example:
 - (i) While there is some movement in the NGT and Indian courts toward regulating climate pollutants (such as HFC-23) through the EP Act and Air Act; a new legislation is probably needed to clarify that carbon emissions are to be limited.
 - (ii) The principle of equitable consumption is not currently a focus of most laws (outside of forest laws). A new legislation would go further to mainstream this principle than waiting for interpretations of existing laws to catch up.
 - (iii) While ease of doing business is a general policy priority, sharpening it to focus on ease of doing green business and incorporating it as a legal requirement for all policy-making bodies in the country to consider would accelerate the required transition.

5

THE WAY AHEAD

- Addressing gaps in climate policy and legislative framework
- Designing a framework climate legislation for India

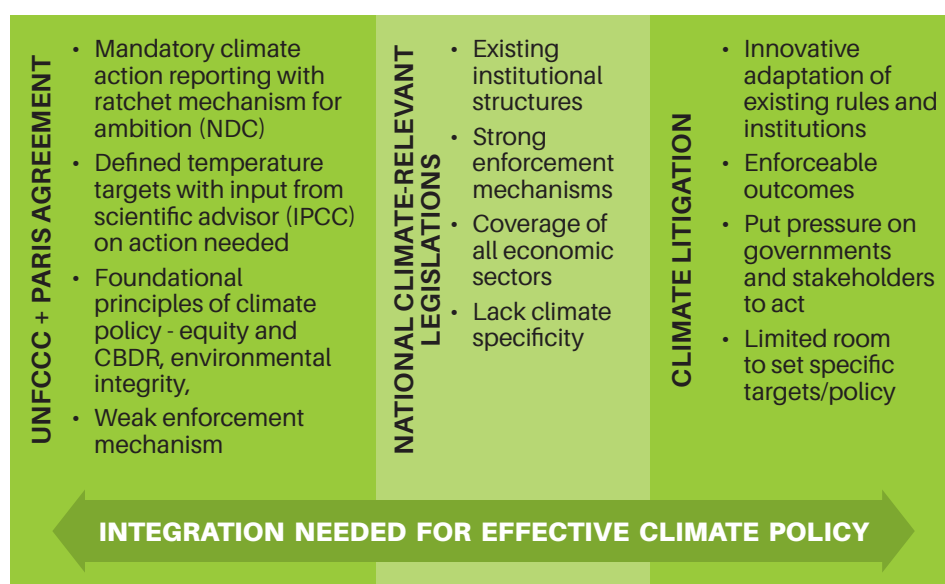
CHAPTER 5:

THE WAY AHEAD

A framework climate legislation is required to provide vision, coordination, target, and predictability to mainstream climate change mitigation and adaptation.

OUR ANALYSIS of climate change litigations and legislation from India and abroad clearly indicates significant gaps in India's climate change-related law and policies. The Paris Agreement lacks an enforcement mechanism as well as tools to enhance ambition. The national climate-relevant legislations lack climate specificity, and there are limitations to what litigations can achieve. In this scenario, a framework climate legislation can integrate all three and support an effective climate policy.

Figure 4: Strengths and weaknesses of International Agreements, National Legislation and Climate Litigation



While there is a difference of opinion among experts on the need for a new climate change legislation, we conclude that a framework climate legislation is required in India to provide a vision, coordination, target, and predictability to mainstream climate change mitigation and adaptation.

The term 'framework law' refers to a legislative technique used to address cross-sectoral issues. Framework legislation lays down general principles and obligations, and leaves it to implementing legislation and the competent authorities to determine specific measures to be taken so as to realize such obligations, possibly within a given time limit.¹³²

A framework law on climate change can set out obligations for state authorities and private actors, establish necessary institutional mechanisms and provide the legal basis for other additional measures to be taken by the state authorities.

The demand for a climate law is not new. Between 2012 and 2015, a climate change bill was circulated among stakeholders in India. Structured as a private member's bill (i.e., without the explicit backing of the government), it provided a useful starting point for Indian climate legislation (*See Annexure 1*).¹³³

Modelled on the UK Act, the bill proposed a system of carbon budgeting. It mandated the government to set a cumulative budget up to 2050, as well as for 'budgetary periods' commencing with the years 2015-2020. It required to

implement laws and policies to stay within this carbon budget, taking into account scientific advice and the country's economic, fiscal and social situation and international climate politics. The government is required to monitor progress on staying within these budgets and report annually to Parliament.

The Bill also proposed a National Committee on Climate Change (somewhat based on the UK's Climate Change Committee), comprising a mix of members with scientific, judicial, administrative, and civil society backgrounds. The Committee is to provide expert advice to the government (and any agency which requests it) on setting carbon budgets and modifying existing legislation to address climate priorities. The Committee is to prepare regular reports on progress, which it forwards to the government to lay before Parliament (with the government required to take prompt action on the Committee report).

The Bill establishes a Carbon Trading Authority, which is empowered to publish a Carbon Trading Scheme. Very few details are specified on the strategic purpose of the Scheme, other than it is intended to limit "activities that consist of emission of GHG or that cause or contribute, directly or indirectly, to such emissions" and encourage "activities that consist of, or that cause or contribute, directly or indirectly, to reductions in GHG emissions or the removal of GHG from the atmosphere".

While this private member bill is a good beginning, it doesn't address some of the critical gaps in India's climate legislation.

I. ADDRESSING GAPS IN CLIMATE POLICY AND LEGISLATIVE FRAMEWORK

A review of climate-related laws shows many gaps in the existing legislative and policy framework in India. In Table 1, we identify the critical gaps and give our recommendation for filling the gaps.

Table 4: Gaps in climate policy and laws in India

Desired/ Required Element	Existing legislation/policy	Our suggestion
Target setting	- Targets in India's NDC - Some targets under National Action Plan on Climate Change (and associated Missions) - Renewable energy targets in regulations issued under Electricity Act. - Energy Efficiency targets for major consumers set by BEE.	- A system of evolutionary target setting based on cooperative and competitive federalism under which states are empowered to set more ambitious targets than the national target. - National government sets an overall national long-term target and five-year targets, coordinate state capacity, and provide resources. - Make NDCs submitted under Paris Agreement legally enforceable within India. - State and local governments are empowered to set localised targets and enforce implementation at the ground level, with Central Government offering incentives for performance.

Desired/ Required Element	Existing legislation/policy	Our suggestion
Regular monitoring and reporting on progress	Biannual Update Reports submitted to UNFCCC.	- Regular report (biannual) to the parliament and the state legislature on risks, mitigation and adaptation. - In addition to government's primary responsibility to monitor and report, set-up an institutionalised publicprivate-research collaborative platform for climate data collection and sharing.
Mechanism to pool additional national and international financial resources	- Finance schemes of the Ministry of New and Renewable Energy - Compensatory Afforestation Fund - National Adaptation Fund for Climate Change - NABARD as focal point for national and international adaptation fund.	- Development of detailed climate finance framework by the Reserve Bank of India (RBI). - Multiple institution to handle climate finance - rural adaptation, climate/disaster-resilient infrastructure, energy and industry etc. - Criteria requiring a strong link between proposed project and national or sub-national targets. - Should be applicable to use funds such as CAMPA, NCEF etc. for climate change actions. - Should direct available international climate finance through national financial institutions.
Independent institution for scientific advice	None	- Committee is a needed idea, composition needs to be more weighted toward independent experts from research institutions, industry and civil society. - Administrative and judicial experts already have a defined role in policy-making, including them in this Committee dilutes its independence.
National adaptation and resilience framework	Part of Missions under National Action Plan for Climate Change.	- Entrust National and State Disaster Management Authorities to develop Climate Adaptation and Resilience policies. - Should include periodic publication of a National Climate Risk Assessment. - Should include quantified targets with clear deadlines for achievement and indicative estimates of required resources. - Empower DMAs to assign responsibilities to other authorities (gram sabhas, municipalities, District Agromet Unites, Water Management Authorities etc.) to develop adaptation and resilience plans.
Carbon trading	- PAT energy efficiency scheme - Tradable Renewable Energy Certificates - Apex Committee on Implementation of Paris Agreement instituted with responsibility to oversee carbon trading	- Framework legislation specifying core principles governing carbon market, directed at ensuring creation of high quality credits. - Non-market mechanism for sectors such as forestry and agriculture. - Strong rules preventing double counting. - Government to stabilise market (and improve international bargaining position for Indian credits) by buying credits and accumulating them in a National Carbon Credit Reserve.

Desired/ Required Element	Existing legislation/policy	Our suggestion
Mainstream- ing climate policy	No clear mandate to mainstream	• Framework law should provide that all governmental rules/regulations and policies must consider climate risk, mitigation and adaptation as a core for policy and plan development and implementation. • Framework law should provide that all governmental rules/regulations and policies must promote 'ease of doing green business'. • Union Budget to mandatorily include climate budget tagging.
Sustainable, equitable consumption	• Forest Rights Act requires sustainable use of forest resources. • National Minerals Policy 2019 engages with inter-generational equity.	• Framework law should include sustainable consumption as a guiding principle of policy making.
Just Transition	Mineral Conservation and Development Rules (MCDR) 1988 (amended in 2011) prescribe detailed procedures and practices for addressing social impacts of mining, adoption of scientific means of mine reclamation and closure	• Framework law should include the need to develop a Just Transition plan for fossil-fuel dependent industries including coal mines, coal-based power plants and industries, Oil & gas industry etc.

As the table above illustrates, there is a strong foundation to build on. Still, several gaps remain before India can claim a comprehensive climate legislative framework. The section below contains key components to design a framework climate law in India.

II. DESIGNING A FRAMEWORK CLIMATE LEGISLATION FOR INDIA

The framework climate law in India should build on the existing sectoral legislations and institutional structure. The key components of the framework law may include the following:

A. Targets and Budget

1. The law should mandate a long-term target (2050 target) and five-year targets to meet the long-term target. The target setting should be an evolutionary process, starting with an emissions intensity target and moving to absolute emissions reduction targets. India's current NDC is an emission intensity target – to reduce the emissions intensity of its GDP by 33 to 35 percent by 2030 from the 2005 level.
2. The Central Government should fix a carbon budget for budgetary periods commencing from the budgetary period for the years from 2025-2030. The

All rules/
regulations
and policies
must consider
climate risk,
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adaptation as a
core element for
policy and plan
development,
investments,
and
implementation.

A periodic and independent risk assessment and adaptation plan is essential to foster knowledge generation and reduce risk and vulnerability.

carbon budget should be announced five years in advance. The carbon budget for each budgetary period shall be set with a view to achieving the long-term target.

3. The budget should be divided within sectors and accounted for at the state-level.
4. The target and budget should be made part of the NDCs and submitted under Paris Agreement. The NDCs shall be legally enforceable within India.
5. The targets can be met by using offsets and the carbon market.
6. The target setting shall be based on cooperative and competitive federalism in which the states are empowered to set more ambitious targets than the nationally-defined target and budget.
7. The national government's role shall be to set the long-term target and five-year targets, allocate the carbon budget to sectors and states, coordinate state capacity, and provide resources.
8. State and local governments are empowered to set localized targets and enforce implementation at the ground level, with the Central Government offering incentives for achieving the targets.

B. Mainstreaming climate change

1. The framework law should strengthen the existing policy and legislation to mainstream climate change mitigation and adaptation in policies, plans, and investments.
2. All Central Government rules/regulations and policies must consider climate risk, mitigation, and adaptation as a core element for policy and plan development, investments, and implementation.
3. The following laws should be strengthened to mainstream climate change:
 - (i) The Environment (Protection) Act, 1986;
 - (ii) The Air (Prevention and Control of Pollution) Act, 1981;
 - (iii) The Motor Vehicles Act, 1988;
 - (iv) The Indian Forests Act, 1927;
 - (v) The Forest (Conservation) Act, 1980;
 - (vi) The Compensatory Afforestation Fund Act, 2016;
 - (vii) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006;
 - (viii) The Electricity Act 2003;
 - (ix) The Energy Conservation Act, 2001;
 - (x) The Mines and Minerals (Development and Regulation) Act 1957;
 - (xi) Coal Mines (Conservation and Development) Act, 1974; and,
 - (xii) The Disaster Management Act, 2005.
4. Climate risk assessment shall be made an integral part of the Environment Impact Assessment Notification, 2006.
5. All governmental rules/regulations and policies must promote 'Ease of doing green business'.
6. All governmental rules/regulations and policies must give preference to investments and procurements that leads to the largest GHG emissions reductions over the whole lifetime of the capital good or procured item.
7. When planning, selecting, and making investments and procurements,

including in the publication of the Union Budget, the government shall examine how each of these operations can contribute to the achievement of the climate targets specified in this Act.

- Where there are two or more planning, selection, and implementation options for investments and procurements, preference shall be given, after balancing against other relevant criteria pertaining to the purpose of the investment, to the option or options with which the aim of reducing GHG emissions over the whole lifetime of the capital good or procured item can be achieved at the lowest cost. Additional investment or procurement expenditure shall not be disproportionate to the additional contribution to GHG reduction. In so far as provisions of procurement law are applicable, they shall be observed.
 - When cost-effectiveness criteria are applied, costs and savings over the entire lifetime of the investment or procurement in question shall be the basis of any comparison. Due consideration shall be given to the expected costs of climate action to the national economy.¹³⁴
8. Each government ministry and agency shall have a Climate Advisor to lead the preparation of such cost-effectiveness assessments and advise on mainstreaming climate priorities into policy and operations.
 9. The Union Budget and the States/UTs Budget shall mandatorily include climate-related budget under various departments/ministries.

C. Climate risk and vulnerability assessments and adaptation planning

1. A periodic and independent risk assessment and adaptation plan is essential to foster knowledge generation and reduce risk and vulnerability to climate change.
2. The Disaster Management Act, 2005 shall be suitably amended to empower the National and State Disaster Management Authorities to develop plans and programmes to build resilience for extreme weather events and slow onset events.
3. The state and district disaster management shall be empowered to coordinate the work of other authorities (gram sabhas, municipalities, District Agromet Unites, Water Management Authorities, etc.) to develop resilience plans.
4. Every department and ministry shall develop a framework to mainstream adaptation and develop and publish adaptation plans. The plans should include quantified targets, wherever applicable, with clear deadlines for achievement and indicative estimates of required resources.
5. The Central Government and the State Governments should publish five-year adaptation plans to galvanize action on adaptation.

D. Institutions for independent advice

1. The Central Government shall constitute a Committee to be known as the National Committee on Climate Change to advise the government on all matters related to Climate Change, including those referred to in or arising from the implementation of the framework Act.
2. The National Committee shall undertake the following activities:
 - (i) Advise the government on climate targets and carbon budget;

The Central Government should constitute a National Committee on Climate Change to advise the government.

The RBI should be empowered to develop a detailed climate finance framework. Under the climate finance framework, Climate Change Fund(s) should be established to attract and channel public, private, national, and international financial resources.

- (ii) Publish an annual report on the status of implementation of the carbon budgets and an assessment on whether the country/states are on track to meet the budgets.
 - (iii) Publish periodic (every five years) National Climate Risk Assessment Report. The report must assess:
 - The risks to India's economy, society, environment, and ecology from the current and future effects of climate change;
 - Identify the most significant risks to India, based on the nature of the risks, their severity, and the need for coordinated steps to respond to those risks in the next 5-year period; and,
 - Quantify the investments needed to deepen the climate risk assessment system at ground level, including but not limited to investments in weather and climate modelling infrastructure and services.¹³⁵
 - (iv) Publish biannual report on the state of mainstreaming climate change at the Central and State Government(s) levels.
 - (v) Advise the Central Government on the manner in which the emission of GHG from different sectors such as industry, transport and power are to be tackled; and,
 - (vi) Advise the Central Government on the manner in which the implementation of the framework climate law can be strengthened.
3. The National Committee on Climate Change shall consist of:
- (i) A person appointed by the national authorities to chair the Committee ("the chair"), and not less than ten and not more than 20 other members appointed by the national authorities.
 - (ii) Members of the Committee shall not be current employees of the Central Government or have been directly employed by the Central/State Government at any time in the past ten years.
 - (iii) In appointing a member, the national authorities must have regard to the desirability of securing that the Committee (taken as a whole) has experience in or knowledge of the following:
 - Climate change policy at the national and international level, and in particular the social impacts of such policy;
 - Climate science, and other branches of environmental science;
 - Differences in circumstances between states and the capacity of national authorities to take action in relation to climate change;
 - Economic analysis and forecasting;
 - Emissions trading;
 - Energy production and supply;
 - Financial investment;
 - Technology development and diffusion.
4. The National Committee shall prepare in such form and at such time, as may be prescribed, an annual report giving a true and full account of its activities during the previous year and forward it to the Central Government, which shall cause the report to be laid before each House of Parliament within one month of its receipt.

E. Institutions for finance

1. The RBI shall be empowered to develop a detailed climate finance framework.
2. Under the climate finance framework, multiple Climate Change Fund(s)

should be established to attract and channelise public, private, national, and international financial resources to support the implementation of actions to combat climate change. This could include funds for rural adaptation (NABARD), climate/disaster-resilient infrastructure, energy (IREDA/SECI), industry etc.

3. Funds such as CAMPA, NCEF, etc. should be converged for climate change actions.
4. The funds should have criteria requiring a strong link between the proposed project and national or sub-national targets.

F. Carbon market

1. The Central Government shall establish a Carbon Trading Authority to implement a domestic Carbon Trading Scheme and linking domestic carbon trading with international trading.
2. The carbon trading scheme shall specify:
 - (i) The core principles governing carbon market, directed at ensuring the creation of high-quality credits;
 - (ii) The activities to which the scheme shall apply;
 - (iii) The manner in which carbon credits shall be distributed to the participants;
 - (iv) The rules governing the buying and selling of carbon credits;
 - (v) Issue of carbon certificates to companies and other participants;
 - (vi) The duration of the Carbon Trading Scheme;
 - (vii) Rules to prevent double-counting;
 - (viii) Issues relating to the definition of offenses and suggested penalties; and,
 - (ix) The implementation of the scheme at the State level.
3. The Central Government shall be empowered to stabilize the market (and improve the international bargaining position for Indian credits) by buying credits and accumulating them in a National Carbon Credit Reserve.
4. The energy certificate trading scheme and the Renewable Energy Certificate shall be amalgamated into the carbon trading scheme.

G. Engagement with stakeholders and subnational governments

1. The framework law should mandate engagement with states, municipalities, industry, and civil society in the development and implementation of the law.
2. The Prime Minister Council on Climate Change should be suitably modified into a National Coordination Commission on Climate Change. The mandate of the National Coordination Commission should be to coordinate the implementation of the framework law and its various components.
3. The National Coordination Commission shall be headed by the Prime Minister and have representation from key ministries, states, municipalities, industry, and civil society.
4. States should be empowered to set-up State Coordination Commission on Climate Change.

The existing energy efficiency and renewable energy trading schemes should be amalgamated into a single carbon trading scheme.

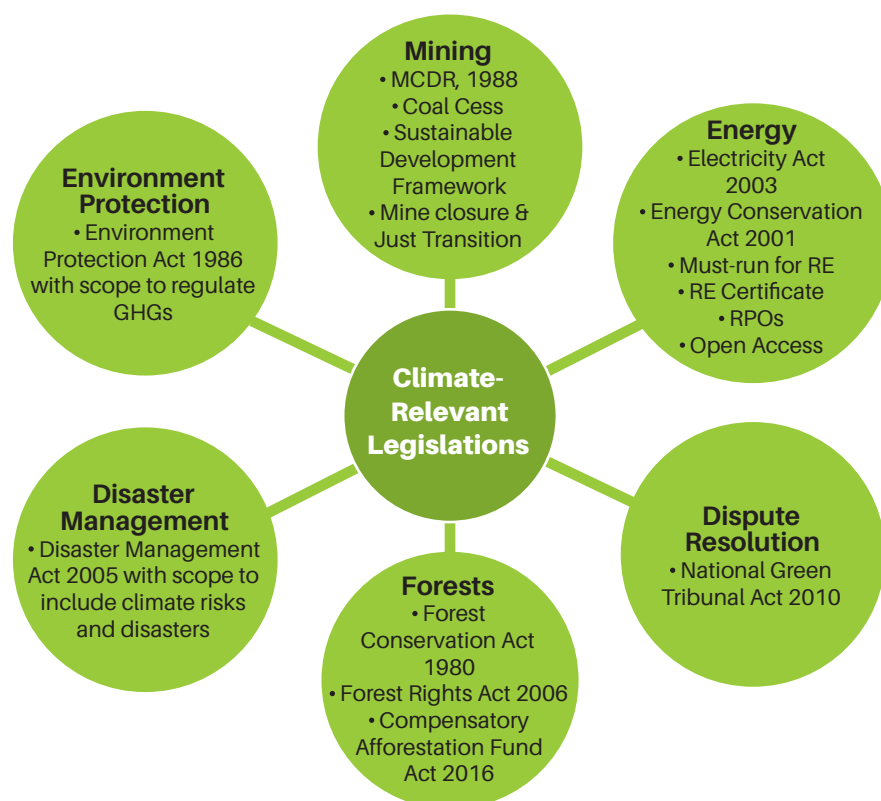
The legislative framework in India has the foundation to build a strong climate change law.

III. CONCLUSION

There exists significant scope to develop a framework climate legislation in India as can be inferred from directions and decisions of the judiciary, existing environmental laws and the power of various authorities, and looking at international cases.

1. The judiciary in India has moved the jurisprudence forward in favour of climate change:
 - By accepting HFC-23 as an environment pollutant under Section 2(b) of the Environmental Protection Act. This has paved the way for including other climate pollutants, including CO₂, as part of the EP Act.
 - By accepting that climate change is already covered in environmental impact assessments under the EP Act in *Ridhima Pandey v. Union of India*.

Figure 5: Existing Climate-Relevant Legislation in India



2. The legislative framework in India has the foundation to build a strong climate change law:
 - The Constitutional authority to enact framework legislation on climate exists in Article 253 and 248 of the Constitution.
 - The Ozone Depleting substance (Regulation and Control) Rules, 2000 sets the precedent for enacting domestic laws targeted at global environmental issues.
 - There are many existing Indian legislations that supports climate action and can form the foundation for a framework climate legislation.
 - (i) Section 2 of the Environment Protection Act 1986 defines a pollutant as “any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to the environment”. The same Act empowers the Central

Government to “take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution” including “planning and execution of a nation-wide programme for the prevention, control and abatement of environmental pollution”.

(ii) The Electricity Act includes environmental protection as an objective. It requires the government to regularly publish a National Electricity Plan, which could easily become a basis for ambitious carbon emissions reduction from the electricity sector.

(iii) The Central and State Electricity Regulatory Commissions constituted under the Act have a clear mandate (and have issued regulations) to support renewable energy, including must-run status, renewable energy certificates, and renewable purchase obligations.

(iv) The beginnings of a national carbon market exist in the Perform Achieve and Trade scheme for energy efficiency and the tradable renewable energy certificates.

(v) The Disaster Management Act can address climate change by making its climate mandate more explicit and better consideration of slow onset events.

(vi) There is already a carbon tax on coal. The Coal mining laws have a clear mandate around coal mine closure and some consideration of just transition concerns.

(vii) Forest laws already have an implicit carbon tax in the form of compensatory afforestation and – in principle, if the rules are framed appropriately – a fund to enhance carbon sink.

3. Building on the above, a framework law on climate change in India will go a long way in mainstreaming climate change mitigation and adaptation and meeting international commitments.

4. The role of a framework climate legislation in India is as follows:

- To establish foundational principles of climate policy which are not clearly present in current law - such as mid-century decarbonisation, equity in the form of just transition, ease of doing green business, and environmental integrity - which apply to all areas of government policy going forward.
- To establish institutions and rules for policy coordination, with adequate permanent capacity and resources, to avoid proliferation/duplication of decision-making bodies in the long-term.
- To establish permanent and adequately resourced institutions for independent scientific advice, with a defined role in climate policymaking.
- To entrust explicit climate mandates to existing institutions in critical underserved areas of climate policy, such as climate finance (the RBI) and climate resilience planning (disaster management authorities).
- To clarify the role of different levels of government, while empowering local governments to take on a greater role in climate mitigation and adaptation.

India is the 5th most vulnerable country to climate change impacts¹³⁶. It is in India's interest that GHG emissions are reduced significantly, and serious effort is made globally to meet the 1.5°C goals. For this, India will have to take a leadership role in international climate actions. A framework climate change law that puts in place a national system to address the climate crisis will go a long way in establishing India's credential as a climate leader.

One of the roles of a framework climate legislation is to establish foundational principles of climate policy that are not clearly present in current law.

Annexure 1:

The Climate Change Bill, 2015

AS INTRODUCED IN LOK SABHA

Bill No. 23 of 2015

THE CLIMATE CHANGE BILL, 2015

By

SHRI KALIKESH NARAYAN SINGH DEO, M.P.

A

BILL

to set a target for the reduction of targeted greenhouse gas emissions; to establish a National Committee on Climate Change; to provide for carbon budgeting and carbon trading schemes and to encourage other such activities to reduce greenhouse gas emissions and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Sixty-sixth Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. (1) This Act may be called the Climate Change Act, 2015.

(2) It extends to the whole of India.

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint:

Short title,
extent and
commencement.

Provided that different dates may be appointed for different provisions of this Act.

2. In this Act, unless the context otherwise requires,—

(a) “annual range for the net carbon account” means a cap on the net Carbon Account for that year set by the Central Government;

(b) “baseline” implies net emissions of carbon dioxide and other targeted greenhouse gases in India during a particular year against which the emission in other years is to be measured;

(c) “budgetary period” means a period of five years set by the Central Government for which a carbon budget applies;

(d) “carbon budget” means a cap set by the Central Government on the amount of net Carbon Account for a specific budgetary period;

(e) “carbon unit” means a unit specified by the Central Government for the purpose of measuring addition or reduction of any greenhouse gas in the atmosphere;

(f) “Energy Intensity Index of GDP” implies the quantity of energy used per unit of GDP;

(g) “National Committee” means the National Committee on Climate Change constituted under section 11;

(h) “net carbon account” means net emissions of targeted greenhouse gases for any particular budgetary period reduced by the amount of carbon units credited and increased by the amount of carbon units debited;

[Carbon Account = Net Emissions-carbon units credited + carbon units debited];

(i) “prescribed” means prescribed by rules made under this Act; and

(j) “targeted greenhouse gases” means carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, per fluorocarbons, sulphur hexafluoride and includes any other gas as the Central Government may specify.

CHAPTER II

CARBON TARGET SETTING

Central Government to ensure Carbon target and its amendment.

3. (1) The Central Government shall, within one year from the commencement of the Climate Change Act, 2015,—

(a) prescribe a target of Net Carbon Account for the year 2050 in accordance with international obligations, if any, agreed to by India;

(b) specify a baseline year for absolute reduction of carbon emission and the proportion of reduction of Carbon emission during each year following the baseline year; and

(c) create an Energy Intensity Index of GDP and set a target for the same.

(2) The Central Government may, by notification in the Official Gazette, change the targets laid down under sub-section (1) on the advice of the National Committee.

(3) Every notification issued under sub-section (2) shall be laid before each House of Parliament during the session immediately following the issue of notification.

CHAPTER III

CARBON BUDGETING

Carbon budgets and budgetary periods.

4. (1) It shall be the duty of the Central Government to prescribe Carbon budget for budgetary periods commencing from the budgetary period for the years from 2015-2020 and to ensure that the prescribed net carbon account for a budgetary period does not exceed cap fixed under the carbon budget for that budgetary period.

(2) The carbon budget for each budgetary period shall be set with a view to achieving the target of Net Carbon Account for the year 2050 to be prescribed by the Central Government under sub-section (1) of section 3.

(3) The Central Government may carry over targets of carbon budget set to a budgetary period to the next budgetary period in consultation with the National Committee and such other agencies as may be prescribed.

5. While taking a decision on setting the target of carbon budget under section 4, the Central Government shall take the following into account:—

(i) scientific knowledge and technology relevant to climate change;

(ii) impact of the decision on the economy and the competitiveness of various sectors of the economy;

(iii) impact of the decision on fiscal scenario, in particular, on taxation, public spending and public borrowing;

(iv) social situation;

(v) likely impact of the decision on energy supplies and the carbon and energy intensity of the economy;

(vi) climate change issues at regional and international level; and

(vii) such other matters as the Central Government may consider necessary.

Various aspects under carbon budgeting.

6. The Central Government shall, in consultation with the National Committee and such other agencies as it may deem necessary, implement such proposals and policies as are necessary for meeting carbon budgets.	Central Government to implement proposals and policies for meeting carbon budgets.
7. The Central Government shall lay, at such intervals as it may deem necessary, before each House of Parliament:— (i) a Report setting out an annual range for the Net Carbon Account for each year within a budgetary period, as soon as the carbon budget has been set for that particular budgetary period; and (ii) a Report setting out proposals and policies for meeting carbon budgets for the current and future periods.	Laying of Reports relating to Net Carbon Account and proposals and policies for meeting carbon budgets.
8. The Central Government shall lay before each House of Parliament an annual monitoring statement giving the following details:— (i) amounts of emissions and removals and net amounts of each of the greenhouse gases and the overall aggregate; the methods used to calculate these amounts; and a comparative statistics with respect to previous years; (ii) details of the carbon units credited or debited from India's Carbon Account; and (iii) Energy Intensity Index of GDP statistics of various sectors and States.	Laying of annual monitoring statement.
9. The Central Government shall make following provisions for the Net Carbon Account:— (i) the circumstances under which carbon units are to be credited or debited to the Net Carbon Account; and (ii) the manner in which such crediting or debiting is to be done.	Net Carbon Account.
10. The Central Government shall ensure that the carbon units credited to the Net Carbon Account for a period are not used to offset other emissions within or outside the country.	

CHAPTER IV

NATIONAL COMMITTEE ON CLIMATE CHANGE

Constitution of a National Committee on Climate Change.	11. The Central Government shall, within three months of the coming into force of the Climate Change Act, 2015, constitute a Committee to be known as the National Committee on Climate Change for the purpose of advising the Government on all matters related to Climate Change including those referred to in or arising from the implementation of this Act.
Composition of the National Committee.	12. (1) The National Committee shall consist of:— (i) a Chairperson who shall be a person having special knowledge in the field of environment and climate change; (ii) one person representing the National Green Tribunal constituted under the National Green Tribunal Act, 2010 — Member; (iii) not less than two persons having judicial background to be nominated by the Central Government — Members; (iv) one person to be nominated by the Central Government representing the Union Ministry of Environment and Forests — Member; (v) one person to be nominated by the Central Government representing the Bureau of Energy Efficiency — Member; and

(vi) not less than two persons representing the non-Governmental Organizations working in the field of climate change, to be nominated by the Central Government in such manner as may be prescribed — Members.

(2) The Central Government may, if it considers necessary, appoint one or more persons having specialized knowledge and experience in the field of climate change as *ad hoc* members of the National Committee.

(3) The salary and allowances payable to, and other terms and conditions of service of the Chairperson and members of the National Committee shall be such as may be prescribed.

Advice to the
Government.

13. The National Committee shall advise the Central Government on the following matters: —

(i) modification to be made in the limit of carbon target/emission level specified in sub-section (1) of section 3;

(ii) integration, reconciliation and consolidation into the Climate Change Act, 2015 of such laws and policies as are related to protection of environment or climate change including the following, namely: —

(a) the Environment (Protection) Act, 1986;

(b) the Air (Prevention and Control of Pollution) Act, 1981;

(c) the Motor Vehicles Act, 1988;

(d) the Indian Forests Act, 1927;

(e) the Forest (Conservation) Act, 1980;

(f) the Energy Conservation Act, 2001; and

(g) the Climate Change Action Plan;

(iii) the manner in which the emission of green house gases from different sectors such as industry, transport and power are to be tackled; and

(iv) increased and sustainable use of renewable energy and energy efficiency.

14. The National Committee shall, on a request made to it by any agency, authority or institution, give its advice or provide information or analysis or any other details related to climate change or in connection with any functions mentioned under this Act to that agency, authority or institution.

Advice to
other
national
bodies.

15. (1) The National Committee shall prepare in such form and at such time, as may be prescribed, an annual report giving a true and full account of its activities during the previous year and forward it to the Central Government, which shall cause the report to be laid before each House of Parliament within one month of its receipt.

Annual
Report.

(2) Without prejudice to generality of the foregoing provision, the annual report referred to in sub-section (1) shall also contain: —

(i) progress that has been made towards meeting the carbon budgets;

(ii) manner in which the budget for a period was met;

(iii) the reasons due to which the budget for a period was not met;

(iv) further action that is needed to meet the budgets and targets; and

(v) whether budgets and targets for a period are likely to be met.

16. The Central Government shall, within three months of the receipt of the report from the National Committee, lay before each House of Parliament, an action taken report on the annual report submitted by the National Committee.

Action taken
reports.

CHAPTER V

CARBON TRADING SCHEME

17. (1) The Central Government shall, as soon as may be after the coming into force of this Act, establish a Carbon Trading Authority for the purpose of formulating the Carbon Trading Scheme.

Establishment of a Carbon Trading Authority.

(2) The Authority shall cease to exist after the Carbon Trading Scheme under section 18 is formulated and approved by the Central Government.

Explanation.—In this section, “Carbon Trading Scheme” means a scheme that operates by—

(a) limiting activities that consist of emission of greenhouse gas or that cause or contribute, directly or indirectly, to such emissions; or

(b) encouraging activities that consist of, or that cause or contribute, directly or indirectly, to reductions in greenhouse gas emissions or the removal of greenhouse gas from the atmosphere.

18. (1) The Carbon Trading Authority shall, within one year from the date of its establishment, formulate a scheme to be known as the Carbon Trading Scheme.

Carbon Trading Scheme.

(2) While formulating the Carbon Trading Scheme, the Authority may consult the National Committee or such other stakeholders as it may consider necessary.

(3) While formulating the Carbon Trading Scheme, the Carbon Trading Authority may take into account the following matters:—

(a) the application of the scheme on various sectors or institutions;

(b) the activities to which the scheme shall apply;

(c) the manner in which carbon credits shall be distributed to the participants;

(d) the rules governing the buying and selling of carbon credits;

(e) issue of carbon certificates to companies and other participants;

(f) the duration of the Carbon Trading Scheme;

(g) issues relating to definition of offences and suggested penalties; and

(h) the implementation of the scheme at the State level.

(4) Nothing contained in section 13 shall restrict the Carbon Trading Authority from taking into account the matters which it is required to take under this section.

CHAPTER VI

MISCELLANEOUS

Power to make rules.

19. (1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the purposes of this Act.

(2) Every rule made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both the Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

STATEMENT OF OBJECTS AND REASONS

India's rapid economic growth and its efforts for holistic development need should not be in conflict with an ecologically sustainable development. India is the fifth largest emitter of green house gases in the world quantity-wise, although, India's per capita emissions are still substantially below the world average per capita emissions. Hence, it is important for India to take a proactive step in order to mitigate the emissions and to improve energy efficiency.

India has been identified as a key player at the international climate change negotiations. Hence, taking higher caps on emissions domestically (though without any legally binding international agreement) would set India as an example for other countries, thereby, inducing the other countries to take similar steps for a better global environment.

Further, although there are multiple laws for mitigating emissions from various sectors, there is no comprehensive law which clearly defines the emission reduction targets, provides steps to be taken for reducing the emissions and sets a clear cut timeline. Even the National Action Plan on Climate Change does not suffice. Therefore, there is a need for establishment of a proper institutional framework for implementation and monitoring of various existing missions and to take up new challenges.

Climate change is not the concern of just the Ministry of Environment, Forests and Climate Change but of each and every Ministry. It is the duty of the Government to integrate and coordinate the efforts of the various Ministries and properly channelize them to attain the ultimate target of reducing Green House Gas emissions and to contribute India's part in fighting the global warming and other climate change phenomena. This Bill has been proposed to address the above mentioned issues.

NEW DELHI;

KALIKESH NARAYAN SINGH DEO

November 27, 2014.

FINANCIAL MEMORANDUM

Clause 11 of the Bill provides that the Central Government shall constitute a National Committee on Climate Change for the purpose of advising the Government on matters related to climate change. Clause 12 provides for appointment of Chairperson and members of the Committee and also salaries and allowances payable to them. Clause 17 provides for the establishment of a Carbon Trading Authority for the purpose of formulating the Carbon Trading Scheme. At this stage, it is not possible to give the exact amount to be incurred on this account. However, the expenditure, whether recurring or non-recurring, will be met out of the Consolidated Fund of India. It is expected that a recurring expenditure of about rupees one thousand crore will be involved annually.

A non-recurring expenditure of about rupees five hundred crore is also likely to be involved.

MEMORANDUM REGARDING DELEGATED LEGISLATION

Clause 19 of the Bill empowers the Central Government to make rules for carrying out the purposes of the Bill. As the rules will relate to matters of detail only, the delegation of legislative power is of a normal character.

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A

BILL

to set a target for the reduction of targeted greenhouse gas emissions; to establish a National Committee on Climate Change; to provide for carbon budgeting and carbon trading schemes and to encourage other such activities to reduce greenhouse gas emissions and for matters connected therewith or incidental thereto.

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(Shri Kalikesh Narayan Singh Deo, M.P.)

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