August 2021

# Navigating Net-Zero

## Global Lessons in Climate Law-making

ClientEarth

# ClientEarth

A future in which people and planet thrive together isn't just possible: it's essential. We use the power and rigour of the law to create it; informing, implementing and enforcing legislation, training legal and judicial professionals, and proposing policy. Our programmes of work span two broad categories: climate and pollution, and protection of nature. Our climate and pollution efforts defend our rights to a healthy existence. We force governments around the world to uphold their commitment to the Paris Agreement, decarbonise energy and tackle pollution hazardous to human and environmental health. Our nature protection work fights on behalf of vital ecosystems upon which we depend: forests, oceans and wildlife. We push for ambitious new legal protections and radical reforms to industry, and hold lawbreakers to account.

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# 1 Executive summary

As global climate action accelerates, more and more countries are considering passing national legislation giving effect to their international commitments under the Paris Agreement.

Such laws, known as 'framework climate laws' are potentially critical tools in the fight against climate change, operating as both incentives and accountability mechanisms to ensure that the transition to a low carbon economy is co-ordinated, well planned, and takes a long-term perspective.

This report considers six very different framework climate laws from across the globe. We collate the research of local legal experts from Mexico, France, Finland, the UK, Sweden and Victoria, Australia, to draw conclusions about principles for the design of effective framework climate laws. We have focussed on legislation that has been in place for over three years, given the long timeframes over which these laws are intended to operate.

This 'first generation' of framework climate laws must be applauded for pioneering this ambitious tool for reducing national emissions. The scale of the climate challenge must undoubtedly be met with an integrated, national apparatus and each framework climate law that we examined takes this important step. However, as can be expected of legislation that 'breaks new ground', most of the laws studied have faced some challenges in implementation, with some features functioning better than others. The United Kingdom (UK), which has achieved some of the greatest emissions reductions of all the states studied, has an effective system of interim target setting (known as budgets), overseen by an active, independent expert scientific advisory committee. Mexico overcame significant resistance from the fossil fuel industry to enact a climate framework law that facilitates greater coordination of climate-related information and empowers states and municipalities to actively participate in climate solutions at the local level. Sweden wisely aligns climate policy plans with local election cycles to avoid the risks arising from shifting political priorities. France adopts important planning tools to integrate climate change targets and stimulate technical innovation, whilst Victoria, Australia, effectively draws in high-level environmental principles and seeks to develop science-based reporting.

Challenges arise when legislatures do not set sufficiently 'hard' legally binding interim reduction targets, duties are split between various arms of government, or are imposed on the wrong arm of government, when implementation is delayed, when monitoring and review mechanisms are insufficient, and when loopholes provide too much flexibility.

Although it is difficult to draw clear causal conclusions between the enactment of a framework climate law and subsequent greenhouse gas emission reductions, there appears to be a small statistical correlation. We also found that the narrative and political power of framework climate laws can be useful to depoliticise a complex and often fraught issue.

**We recommend the following examples of good practice ought to be considered in the drafting of effective framework climate laws:**

- integration of environmental and other key legal and policy principles and priorities;
- clarification of duties on government/ministers to meet both interim and long-term targets;
- imposition of duties on the right decision-makers across government;
- avoidance of silos between government departments;
- ensuring duties are binding and enforceable;
- creation of an independent scientific adviser;
- keeping the law simple and clear; and
- integration of adaptation.

ClientEarth recognises the significant intellectual leadership from Jonathan Church (PhD Candidate at the University College London) and significant contribution from Ellie Gold to the drafting of this report, as well as each of the in-country researchers whose work informed our findings, including Andrés Avila of POLEA, Clare Mathieu, Tuula Honkonen of the University of Eastern Finland, Anita Foerster (Monash University), Anne Kallies (RMIT) and Alice Bleby (University of New South Wales).

# 2 Introduction

It has been over five years since the Paris Agreement was hailed as a momentous step forward for international climate change governance and diplomacy.

As of 2021, the Paris Agreement remains one of the most widely ratified conventions in the history of the United Nations (UN), with 97% of states[1] currently committed to its goals, including and importantly:

> "[h]olding… the increase in the global average temperature to well below 2 degrees above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees above pre-industrial levels"[2]

In order to achieve this, the Paris Agreement requires states to "purse domestic mitigation measures" and "undertake and communicate ambitious efforts", framed by principles of urgency, equity and effectiveness.[3] Article 4(4) provides that developed countries should undertake economy-wide absolute emission reduction targets, and for developing countries to move to the same over time.

While governments grapple with how best to respond to the crisis, climate change is already radically transforming the world as we know it. Regions across the globe have reported more frequent and ferocious climate-related events including droughts, storms, and forest fires. Losses from such climate-related weather events are estimated to have cost the global economy US$3.54 trillion between 1999 – 2018.[4] Climate change is also an aggravating factor in the accelerated transmission of infectious diseases (such as COVID-19), making future pandemics more likely.[5] The threat posed by climate change is well understood to be grave and urgent. When states ratified the Paris Agreement, they did so in recognition of this undeniable fact. Their response to this challenge (or lack thereof) will be hugely consequential for generations to come.

For an increasing number of governments, national framework climate laws are relied on as a key tool for achieving the Paris Agreement's temperature goals. Once enacted, such laws represent a significant political achievement and an important commitment to combat climate change. But the story doesn't stop there. Five years on from the initial promise of the Paris Agreement, this report evaluates the performance of and key learnings from a sample of the more established framework climate laws. The laws examined in this report offer examples of effective legislative design, and can operate as models for governments around the world considering enacting this kind of legislation. Also, understanding the weaknesses of these framework laws is imperative to inform, refine, and ultimately improve, the next generation of climate legislation.

# 3 Methodology

## 3.1 What does the report examine?

This report seeks to evaluate the effectiveness of a selection of framework climate change laws across six jurisdictions. As part of this analysis, we consider how these laws have performed and evolved since their enactment. Our objective is to describe and compare these frameworks in order to seek out common themes. These themes will identify lessons to be learned for the future design of effective new framework laws.

**The following national climate laws were examined:**

- Climate Change Act 2008 (UK)
- General Law on Climate Change 2012 (Mexico)
- Climate Change Act 2015 (Finland)
- Energy Transition for Green Growth Act 2015 (France)
- Climate Act 2018 (Sweden)

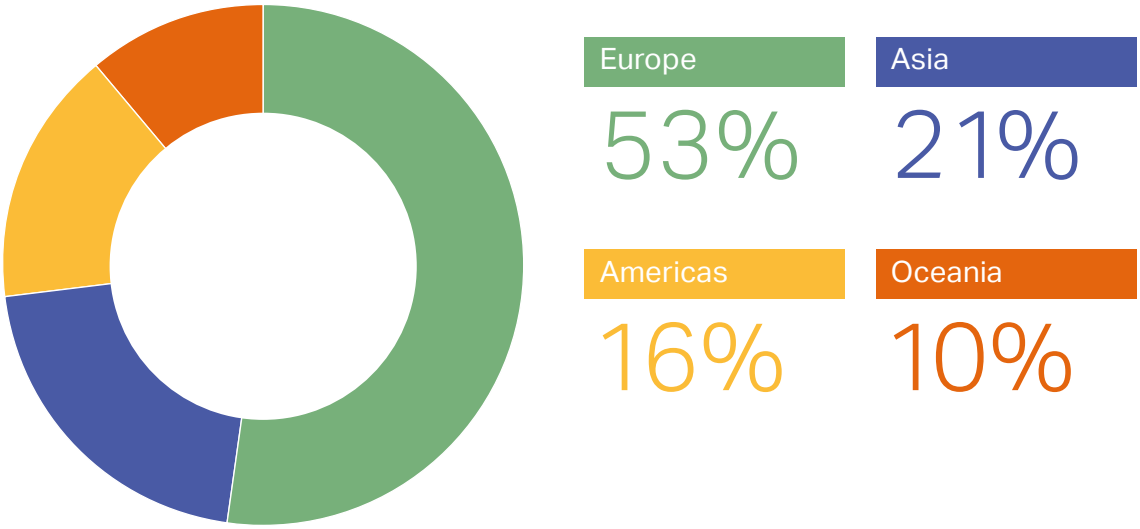
**We also considered the sub-national case of Victoria, Australia, to provide an example from a federal political system:**

- Climate Change Act 2017 (Victoria, Australia).

## 3.2 What is a framework climate law?

As of May 2021, there are approximately **2,242 climate change laws and policies** in operation across the globe.[6] A recent article in Nature Climate Change reports that "there is no country in the world that does not have at least one climate change law."[7]

**Graph 1: Distribution of climate laws and policies by continent**



Framework climate laws are more narrowly determined. For the purposes of this report, a framework climate law is defined as legislation which seeks to set up an overarching national framework for achieving a long-term, economy-wide greenhouse gas emissions ($MtCO_2e$) reduction target, that is, emissions reductions across multiple sectors and over a decades-long timeframe. Framework climate laws will include emissions targets and often require the development of policy/planning processes to achieve targets, include reporting and monitoring and establish, advance or entrench the role of independent expert bodies.

Under these parameters, we count just **20 framework climate laws globally**.[8]

The relative youth of most framework climate laws can limit the scope for fruitful analysis. This report purposefully selects framework climate laws that have had the benefit of time to operationalise. All the laws examined have therefore been in place for three years or more, and offer some important lessons about the design of framework laws globally.

## 3.3 Our approach

This report applies a largely qualitative approach to analysing the laws in question, although quantitative data is used to support some conclusions. Whilst the UK and Swedish jurisdictions were researched in-house, consultant academics from Mexico, Finland, France, and Australia were engaged to investigate the operation of the law in their respective jurisdictions. The consultants were asked to respond to a number of standard form questions about the operation of the laws in their jurisdiction, including the effectiveness of the law, its political and public reception, and national mitigation outcomes. Each consultant produced a country-specific report, informed by desk-based legal analysis, statistical research, and interviews with key stakeholders, including politicians, experts, and commentators. Interviews were also carried out by ClientEarth in respect of the UK and Swedish experience. The respective country-specific reports inform this report's analysis and are quoted throughout, with gratitude to our partners.

# 3.4 State profiles

UK
France
Mexico
Finland
Victoria, Australia
Sweden

# **UK**: The Climate Change Act (2008)

The UK Act aims to establish a long-term framework of carbon management to assist the transition to a low carbon economy. The UK Act requires the government to set legally binding emissions targets, called carbon budgets, every five years. Alongside this, the government must publish carbon plans for each carbon budget, which are reviewed by an independent body, also established by the UK Act. The government must respond to these reviews and receive parliamentary approval for the setting of new carbon budgets. Furthermore, the government must publish a report on the impact of climate change every five years, in which the pathway towards achieving carbon budgets is described.*


## Key Targets

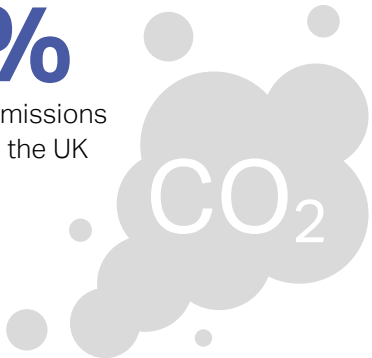
1. Reduction in $CO_2$ emissions of at least **68%** by 2030, against a 1990 baseline.*
2. In 2019, the second target was made more ambitious. The UK now commits in law to **net-zero** by 2050.

In 2020, the government pledged to achieve a **78%** reduction in emissions compared to 1990 levels by 2030.

**Source** s.1(a)

**78%**

cut in GHG emissions by actions in the UK by 2035*




## Bindingness of Targets

Legally binding long-term target.

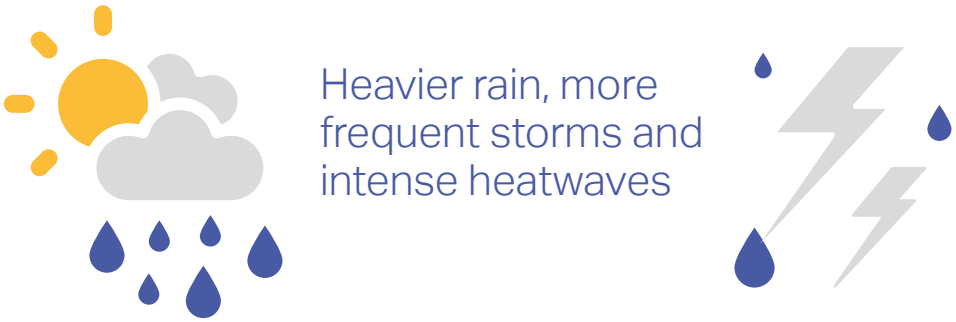
**Source** Report

*Amendment to report made on 11 Oct 2021

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 0.96% | 364.9mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **% Share of Global GDP 2019** |
| 5.45mt (tons/cap) | 3.17% |

## Key vulnerabilities

The key risks to the UK include more frequent and severe storms, heavier precipitation and changing rainfalls patterns, rising sea-levels and more regular and intense heatwaves.




## Sectors

The heaviest emitters in the UK are, in order, the **transport**, **energy**, and **business** (manufacturing and industry) sectors.

## Independent Consulting Body

The Committee on Climate Change (established by the UK Act)

## Supervisory Body/Department

Department for Business, Energy and Industrial Strategy and the Department of Environment, Food and Rural Affairs.

## Summary of mechanisms

It is the duty of the Secretary of State to set for each succeeding period of five years, an amount for the net UK carbon account, and to ensure that the net UK carbon account for a budgetary period does not exceed the carbon budget. The carbon budget system is set with a view to meeting the 2050 target and relevant targets enshrined in EU and international law.

**Source** s.4, s.10

| Framework comparison | |
|---|---|
| Review of Mechanisms /Targets | ✓ |
| **Source** s.2, s.6 | |
| Monitoring Mechanisms | ✓ |
| **Source** s.36, s.57, s.59 | |
| Reporting Mechanisms | ✓ |
| **Source** s.14, s.16, s.18 - s.20 | |
| Integration with International Commitments | ✓ |
| **Source** s.2(2)(a)(i), s.8 | |
| Enforcement and Accountability | ✗ |
| **Source** s.19 | |
| Integration of the law across government decision-making | ✗ |
| Sector specific provisions | ✗ |
| **Source** Part 3 | |
| Adaptation: Specific Provisions | ✓ |
| **Source** s.58 | |
| Mitigation Specific Provisions | ✓ |
| **Source** s.1, s.4, s.10 | |
| Flexibilities | ✓ |
| **Source** Report | |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

# **France** The Energy Transition for Green Growth (Energy Transition Law) (2015)

France's Energy Transition Law provides a national framework covering a broad range of sectors to diversify the French energy sector and enhance climate actions. The Multi-annual Energy Programme and National Low-Carbon Strategy are required to detail and describe the Energy Transition Law's implementing policy. The framework law sets binding targets for the transport, housing, and renewable energy sectors, and increases the carbon tax on fossil fuels more than four times. It also sets a requirement for investors to disclose climate risk, declare the environmental impact of their portfolios, and describe how environmental factors are considered in decision-making. There are also several provisions promoting the saving of resources and waste reduction.


## Key Targets

1. Reduce GHG emissions by **40%** by 2030 and **75%** by 2050.
2. Reduce national energy consumption by **50**% by 2050.
3. Reduce the share of fossil fuels in energy production by **30%** compared to 2012.
4. Reduce reliance on nuclear energy by **50%** by 2030.
5. Ensure **32%** of the national energy mix is renewables.

**Source** Report and online research

**Ensure**

**32%**

of the national energy mix is renewable energy

## Bindingness of Targets

The French Act imposes a legal obligation on the government to diversify the energy sector, and commit to legally binding energy targets. Obligations are also imposed on municipalities and private businesses of a certain size. Moreover, investors are required to disclose the environmental impact of their portfolios, including the impact on climate change.

Local lawyers report that in practice, the French law is complex, unwieldy and inaccessible, translating to a de facto lack of binding quality.

**Source** Report

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 0.83% | 314.7mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **% Share of Global GDP 2019** |
| 4.81t (tons/cap) | 3.13% |

## Key vulnerabilities

France is exposed to hotter and more frequent heat waves, and is at greater risk of extreme storms and flooding. France's agriculture sector is under threat from uncertain weather paterns, declining quality of soil, and subsequent food supply issues.

France's agriculture sector is under threat from uncertain weather patterns

## Sectors

**Transportation**, followed by **residential** and **service** sectors. Compared to other European States, France has low energy sector emissions, thanks to a large level of nuclear power.

## Independent Consulting Body

French Expert Committee for the Energy Transition.

## Supervisory Body/Department

The Ministry for an Ecological and Solidary Transition.

## Summary of Mechanisms

The French Act aims to diversify the nation's energy mix and enhance its actions contributing to tackling climate change. It covers a large scope of economic activities and brings in binding energy targets for transport, housing and renewable energy. The French Act lays out many objectives, but lacks the support of relevant regulations and guidance to help business and government achieve these aims. Even so, the Act is implemented by more than 150 regulations, adding to its complexity.

The French Act also introduces a carbon budget system covering periods of five years, and the Clean Mobility Plan which significantly increases the carbon tax.

**Source** Report and online research

In 2019, France adopted the Law n° 2019-1147 on Energy and the Climate – a climate and energy framework law. This enshrines France's carbon neutrality 2050 target into law and identifies key metrics and deliverables for the energy sector.

| Framework comparison | |
|---|---|
| Review of Mechanisms /Targets | ✓ |
| **Source** Report | |
| Monitoring Mechanisms | ✓ |
| **Source** | |
| Reporting Mechanisms | ✓ |
| **Source** Report | |
| Integration with International Commitments | ✓ |
| **Source** Online research | |
| Enforcement and Accountability | ✗ |
| **Source** Report | |
| Integration of the law across government decision-making | ✗ |
| **Source** Report | |
| Sector specific provisions | ✓ |
| **Source** | |
| Adaptation: Specific Provisions | ✗ |
| **Source** | |
| Mitigation Specific Provisions | ✓ |
| **Source** Online research | |
| Flexibilities | ✗ |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

# **Mexico** The General Law on Climate Change (2012)

The General Law on Climate Change ('GLCC') aims to strengthen Mexico's commitment to address climate change. The GLCC's primary objective is "to promote the transition to a competitive, sustainable and low carbon emission economy" across all sectors and with focus on adaptation measures. Under the GLCC, an overarching National Climate Change Strategy ('NCCS') is required to guide climate policy. NCCS mandates the creation of a National Policy on Mitigation and a National Policy on Adaptation which are to be implemented, reported on and reviewed. The GLCC also establishes the Climate Change Fund to attract and direct finance towards adaptation or mitigation efforts and the Voluntary System on Emissions Trading to promote cost-effective, verifiable GHG reductions. In 2014, the GLCC was amended to introduce a tax on fossil fuels, and again in 2016 to frame a carbon market.

## Key Targets

1. By 2030, Mexico will reduce its total GHG emissions by **22%** and will reduce its Black Carbon emissions by **51%** compared with a 2000 baseline.
2. Reduce emissions by **30%** by the year 2020 with reference to the baseline, and a **50%** reduction in emissions by 2050, against a 2000 baseline.
3. Minimum **35%** of electricity from clean energy sources by 2024.
4. Mexico's peak of emmissions should come by 2026.

**Source** Transitory Articles 2, 9

**35%**

of the energy used by Mexico from clean energy sources by 2024

## Bindingness of Targets

The targets are qualified and contingent upon the proper support of the international community, and due to this, are not included in the body of the Mexican Law. The targets are not legally binding.

**Source** Transitory Article 2

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 1.28% | 485mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **% Share of Global GDP 2019** |
| 3.67t (tons/cap) | 1.47% |

## Key vulnerabilities

Climate-related hazards in the region include storms and flooding, which mostly occur during heavy rain seasons. Storm events are more commonly associated with hurricanes, bring high winds and cause extensive damage. Mexico's coastlines are vulnerable to tropical cyclones and hurricanes from both the Atlantic and the Pacific oceans from July through October.

## Sectors

**Transport** and **electricity generation** are the largest contributors of GHG emissions by sector in Mexico. Emissions from all sectors are steadily on the rise.

## Independent Consulting Body

1. Council on Climate Change: permanent consultative body tasked with fostering broad stakeholder participation and collaboration, including with the public, civil society, and academia.
2. The Evaluation Committee: supervises the progress and compliance of the National Policy on Climate Change, Special Climate Change Program, and emissions reduction targets.

## Supervisory Body/Department

The Inter-ministerial Commission on Climate Change is formally the supervisory body, with responsibility for the National Emissions Inventory falling to the National Institute of Ecology and Climate Change. Coordination of federal, state, and municipal government climate action is held by the newly formed National Climate Change System.

## Summary of Mechanisms

The Mexican Law requires a National Strategy on Climate Change which in turn requires the development of National Policies on Mitigation and Adaptation. The Transitory Articles of the Law outline specific adaptation and mitigation actions and goals to be prioritised in Mexico. The National Strategy on Climate Change includes:

- projections based on constitutional terms of federal and state administrations;
- medium and long-term projections with forecasts of 10, 20, and 40 years; and
- actions to combat the effects of climate change and to transition to a competitive, sustainable low carbon emissions economy. A Climate Change Fund and Emissions Inventory are also mandated by the law.

**Source** Article 59. ii, Article 60

In 2018, the GLCC was reformed to establish an emissions trading system to promote measurable, cost-effective GHG reductions, modify elements of the national Strategy on Climate Change, and commit to Mexico's NDCs agreed at COP's 21st session (reduction of emissions by 22% by 2030).

| Framework comparison | |
|---|---|
| Review of Mechanisms /Targets | ✓ |
| **Source** Article 61 | |
| Monitoring Mechanisms | ✓ |
| **Source** Article 98, 104, 11-15 | |
| Reporting Mechanisms | ✓ |
| **Source** Article 59. ii, 60, 22. xxii, 57vii, 87, ss111-116 | |
| Integration with International Commitments* | ✓ |
| **Source** Article 2, 32 | |
| Enforcement and Accountability | ✓ |
| **Source** Report | |
| Integration of the law across government decision-making | ✓ |
| **Source** Article 38 (2), chapter ii: Article 45, 47iii | |
| Sector specific provisions | ✗ |
| **Source** Article 31-33 | |
| Adaptation: Specific Provisions | ✓ |
| **Source** Transitory Article 3.1a-d | |
| Mitigation Specific Provisions | ✓ |
| **Source** Transitory Article 3.ii (a-e) | |
| Flexibilities | ✗ |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

*Amendment to report made on 11 Oct 2021

# **Finland** Climate Change Act (2015)

Finland's Climate Change Act ('CCA') aims to deliver a long-term, consistent, and cost-effective strategy to address climate change. The CCA provides for periodically updated medium and long-term plans, including the means to achieve the proposed emissions target, targets for emissions falling outside of the emissions trading scheme, and an adaptation plan requiring risk and vulnerability evaluation and review. The CCA also introduces a monitoring and planning system for state climate policy and establishes an expert body to guide such efforts.

## Key Targets

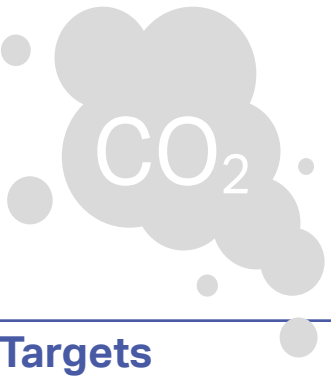
**1.** Reduce Finland's emissions by **80%** of the 1990 levels by 2050.

In 2021, the Finnish government will change the law to reflect a target of carbon neutrality, including updated corresponding 2030 and 2040 targets and a new target for strengthening carbon sinks.

**Source** s.6(3)

**80%**

Reduction of Finland's 1990 emissions levels by 2050




## Bindingness of Targets

A long-term, binding goal and requires the production of medium-term plans. However, corresponding targets are non-specific and not legally binding.

**Source** Report

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 0.11% | 43.41mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **% Share of Global GDP 2019** |
| 7.81t (tons/cap) | 0.31% |

## Key vulnerabilities

Finland is at risk of floods, heavy rains, drought and storms and winds, posing a particular threat to agriculture. Frost damage, reduced snow cover and darker winter seasons are also likely impacts of climate change as time goes on. The extraction of peat energy represents less than **5**% of Finland's output, but this dwarfs the % of other national peat burners.

Floods, heavy rains, drought and storms and winds, pose a particular threat to agriculture

## Sectors

The **energy** sector (particularly peat energy extraction and use, which accounts for around 10% of Finland's total emissions) is the largest source of emissions, followed by **agriculture** and **construction** .

## Independent Consulting Body

The Finnish Climate Change Panel (established by the CCA).

## Supervisory Body/Department

Ministry of the Environment, with responsibility for the Energy and Climate Policy Strategy falling to the Ministry of Economic Affairs and Employment with input from the Ministry of Agriculture and Forestry.

## Summary of Mechanisms

The Finnish Act requires the preparation of a:

- long-term climate change policy plan, approved every 10 years;
- medium-term climate change plan, approved once per electoral term; and
- a national adaptation plan outlining the "attempt to mitigate climate change and adapt to it in a cost-effective way", approved every 10 years.

**Source** s.6

Finland is in the process of reforming the CCA to include the recent pledge to achieve carbon neutrality by 2035. The CCA will also be amended to include emissions targets for 2030, 2040 and 2050, stronger targets for carbon sink preservation and land use management, and a refined pathway to net-zero.

| Framework comparison | |
|---|---|
| **Review of Mechanisms /Targets** | ✓ |
| **Source** ss.7 - 9 , s.11 | |
| **Monitoring Mechanisms** | ✓ |
| **Source** s.12 | |
| **Reporting Mechanisms** | ✓ |
| **Source** s.11, s.14 | |
| **Integration with International Commitments** | ✓ |
| **Source** s.6(3), s.6(5)(1), s.5(1), s.12(2) | |
| **Enforcement and Accountability** | ✗ |
| **Source** s.15(1) | |
| **Integration of the law across government decision-making** | ✓ |
| **Source** s.3 | |
| **Sector specific provisions** | ✗ |
| **Source** s.6(3), s.7(2)(1) | |
| **Adaptation: Specific Provisions** | ✓ |
| **Source** s.4, s.8 | |
| **Mitigation Specific Provisions** | ✓ |
| **Source** The Law | |
| **Flexibilities** | ✗ |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

## **Victoria, Australia** The Climate Change Act (2017)

The state of Victoria in Australia has put in place its own climate framework law, the Climate Change Act ('the Victorian Act') setting out a pathway to net-zero by 2050. The Victorian Act requires the setting of interim emissions reduction targets every five years, and the development of emissions reduction pledges that set out measures to achieve emissions reductions to meet interim targets. It also provides for regular progress reporting and evaluation. The Victorian Act also provides for climate change adaptation and requires the development of sector-based Adaptation Action Plans.

### Key Targets

**1.** Achieve **net-zero** by 2050.

The Victorian Act also requires that interim emissions targets are devised and put in place every five years to a specific timetable, commencing from the 2021 – 2025 time period through to 2050.

**Source** s.6(3)

### Bindingness of Targets

There is no legal responsibility to achieve the interim targets. Nor does the Act require the Minister to ensure that emissions reduction pledges are sufficient to achieve the interim targets, nor provide for compensating any gap.

**Source** Report

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 1.14% | 433.4mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **National % Share of Global GDP 2019** |
| 17.27t (tons/cap) | 1.59% |

## Key vulnerabilities

Climate change-related hazards specific to Victoria, Australia include an overall risk of extreme weather events, increased risk of bushfires and storm surges and droughts or flooding. Residents of Victoria also experience higher rates of heat-related ailments resulting from more frequent and more severe heatwaves.

Overall risk of extreme weather events, increased risk of bushfires and storm surges

## Sectors

Data for 2018 shows that the largest sources of emissions in Victoria were **electricity generation** (**45%** of total net emissions); **transport** (**23%**); **direct combustion of fuels** (**17%**); and **agriculture** (**15%**).

## Independent Consulting Body

The Independent Expert Panel on interim targets.

## Supervisory Body/Department

Minister for Climate Change and the Department of Environment, Land, Water and Planning.

## Summary of Mechanisms

The Victorian Law requires:

- The setting of interim targets over five year periods;
- Mandatory preparation of a National Climate Strategy every five years, up to October 2045. In this strategy, a report on the current implementation and effectiveness of any preceding climate change strategy is mandated;
- Mandatory preparation of Adaptation Action Plans every five years, up to October 2046, for key systems that are either vulnerable to the impacts of climate change or essential to ensure Victoria is prepared; and
- Emission reductions pledges to be made by the Minister every five years up to August 2045, including whole-of-government, sector-specific, and local authority reduction pledges.

**Source** s.10, s.29, s.30(5)

At present, a national climate change bill has been proposed to the Australian parliament. Although the likelihood of its passing is low, questions arise about how this state policy would compliment/ contrast with competing (and possibly even weaker) national legislation.

| Framework comparison | |
|---|---|
| Review of Mechanisms /Targets | ✓ |
| **Source** Report | |
| Monitoring Mechanisms | ✗ |
| **Source** s.55 | |
| Reporting Mechanisms | ✓ |
| **Source** s.51, s.52, s.54, s.55 | |
| Integration with International Commitments | ✓ |
| **Source** s.28(b) | |
| Enforcement and Accountability | ✗ |
| **Source** s.6(8) | |
| Integration of the law across government decision-making | ✓ |
| **Source** s.17, ss.20 - 24, s.41 | |
| Sector specific provisions | ✓ |
| **Source** s.43 | |
| Adaptation: Specific Provisions | ✓ |
| **Source** s.29 | |
| Mitigation Specific Provisions | ✓ |
| **Source** s.30(1) - (4) | |
| Flexibilities | ✓ |
| **Source** Report | |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

# **Sweden** The Swedish Climate Act (2017)

Sweden's Climate Change Act ('Swedish Act') aligns national climate policy with climate targets and their implementation. The Swedish Act requires that the government includes a climate report in its annual Budget Bill, creates a climate policy action plan every four years and ensures that climate policy and budget policy are compatible and aligned. The Swedish Act also establishes the Climate Policy Council, an expert body tasked with reviewing national climate policy, including the submission of an annual assessment report on progress towards the law's targets.

## Key Targets

Compared to 1990 levels, the Swedish Act demands:

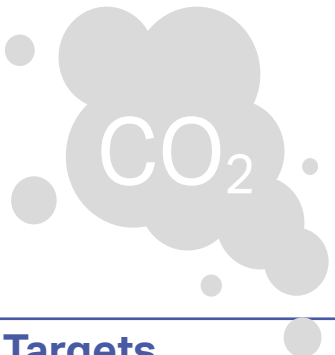
1. Reduction of emissions by **40%** by 2020
2. Reduction of emissions by **63%** levels by 2030
3. Achieve carbon neutrality by 2045

Sweden's net-zero target is 2045.

**Source** s.6(3)

**75%**

Reduction of 1990 emissions levels by 2040




## Bindingness of Targets

The long-term target has binding language ("shall") and can be deemed as such, but the medium-term 2030, 2040 targets are drafted more vaguely ("should") and are unlikely to bind.

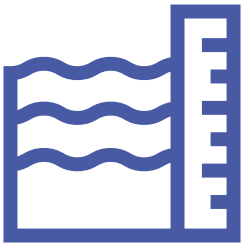
**Source** Report

| % Share of Global $CO_2$ Emissions 2019 | Total National $CO_2$ Emissions 2019 |
|---|---|
| 0.12% | 44.75mt (mtons) |
| **Total $CO_2$ Emissions per Capita 2019** | **% Share of Global GDP 2019** |
| 4.45t (tons/cap) | 0.61% |

## Key vulnerabilities

Sweden is at risk of storms, flooding, and forest fires. Many Swedish cities are built next to the coastline, meaning that sea-level rises are a key threat, particularly for Southern cities. Also, because of Sweden's location and nature of the ground, landslides can pose a problem.

Sea-level rises are a key threat to cities near the coastline



## Sectors

In Sweden, the **energy** sector is the largest emitter, followed by **transportation** and **manufacturing**." With original bold included.

## Independent Consulting Body

The Climate Policy Council (established by the Swedish Act).

## Supervisory Body/Department

Ministry of the Environment .

## Summary of Mechanisms

The government must submit an annual report to Parliament in its Budget Bill which describes

- emissions trends;
- the most important climate decisions made during the year and the possible effects on emissions trends; and
- an assessment of whether further measures are required, and if so, when and how any decisions are to be made.

Every fourth year and within a year following a general election, the government must submit a climate policy action plan. The plan must include:

- Sweden's commitments on climate change;
- historical and projected emissions data;
- outcome of current reduction measures and possible outcome of planned reduction measures;
- the extent to which current and planned measures will contribute towards the long-term target; and
- detail any further measures required.

**Source** s.10, s.29, s.30(5)

| Framework comparison | |
|---|---|
| Review of Mechanisms /Targets | ✓ |
| **Source** Swedish Government website | |
| Monitoring Mechanisms | ✓ |
| **Source** Report, s.4 – s.5 | |
| Reporting Mechanisms | ✓ |
| **Source** s.4 – s.5 | |
| Integration with International Commitments | ✓ |
| **Source** s.5(1), s.5(8) | |
| Enforcement and Accountability | ✗ |
| **Source** Report | |
| Integration of the law across government decision-making | ✗ |
| **Source** Report | |
| Sector specific provisions | ✗ |
| **Source** Report | |
| Adaptation: Specific Provisions | ✗ |
| **Source** | |
| Mitigation Specific Provisions | ✓ |
| **Source** s.2(3) | |
| Flexibilities | ✗ |
| **Source** Report | |

**Strong obligation or provision**

**Weak or tenuous provision (i.e. cursory reference to a principle or duty)**

## 3.5 Measuring impact: two approaches

A 2020 study published in Nature concludes that "passing a climate change law has a statistically significant negative effect on $CO_2$ emissions per GDP".[9] It analysed the *Climate Change Laws of the World* database[10] and found, on average, a 1.79% reduction in national emissions intensity ($MtCO_2e$/GDP) three years after passing a new climate law. That analysis, however, is based on a far wider set of climate change laws considered here: 1,092 laws were included in the study, some 60% of which are executive orders.

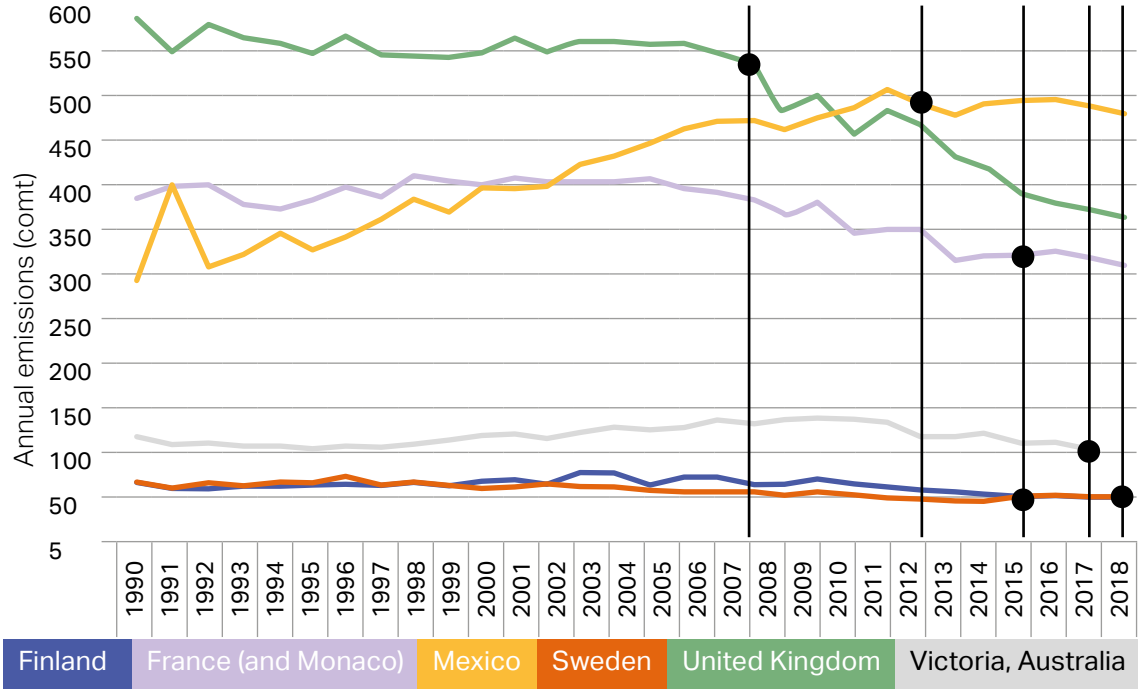
In contrast to the purely statistical analysis above, our study uses more qualitative research methods to understand a particular sub-set of the *Climate Laws of the World* Database, identifying what has actually worked to date, and what can be done better in future. In seeking to draw conclusions about 'what works' in framework climate laws, it is useful to distinguish between the two different levels at which they operate:

1. Firstly, they outline the mechanics needed to achieve emissions reductions: prescribing specific duties, describing governance mechanisms, and structuring the input of expert evidence.
2. Secondly, framework climate laws operate as a political and economic signal, most obviously via the effect of their most prominent features – their long-term emissions targets – and also through the influence and actions of independent advisory bodies that they may establish. This 'high-level contextual effect' is what gives framework climate laws much of their power – on politicians, the media, businesses and citizens. It also impacts how we evaluate a law's effectiveness.

### 3.5.1 Greenhouse gas reductions

The complexity of the issue makes the formulation of a metric to measure a law's effectiveness difficult. For example, in order to judge a framework climate law, one might compare how emissions reductions have progressed with and without a law in place.

**Graph 2:** Annual Emissions by Jurisdiction ($CO_2$mt)




Graph 2: Data for Finland, France, Mexico, Sweden and the UK sourced from the European Commission's Emissions Database for Global Atmospheric Research (EDGAR) – https://edgar.jrc.ec.europa.eu/overview.php?v=booklet2020&dst=$CO_2$emi

Data for Victoria, Australia sourced from Environment, Land, Water and Planning's Chart Data – data available to 2017 https://www.climatechange.vic.gov.au/__data/assets/excel_doc/0011/504002/Victorian-Greenhouse-Gas-Emissions-Report-2018a-Chart-data.xlsx

In fact, comparing periods with and without laws, even if all other factors could be stripped out, would be over-simplistic. Given that such laws are intended to generate new processes of policy planning, policy development and implementation over timeframes of five to ten years and more, a similar 'lag' would be expected before any fall in emissions. For this reason, we have only considered framework laws that have been in place for three or more years.

### 3.5.2 Narrative and political power

The effectiveness of a law is inextricable from its political, social and cultural context, making direct comparative exercises all the more challenging. It is not enough to simply measure and compare greenhouse gas reductions by country or time period; a further qualitative analysis must also take place. After all, the very existence of framework climate laws, and their overarching greenhouse gas (GHG) reduction ambitions claims its own significant, political and rhetorical power. By placing emissions targets on a statutory footing, framework climate laws confirm the legitimacy of climate action, set industry and public expectations, and can contribute to framing of the media discourse.

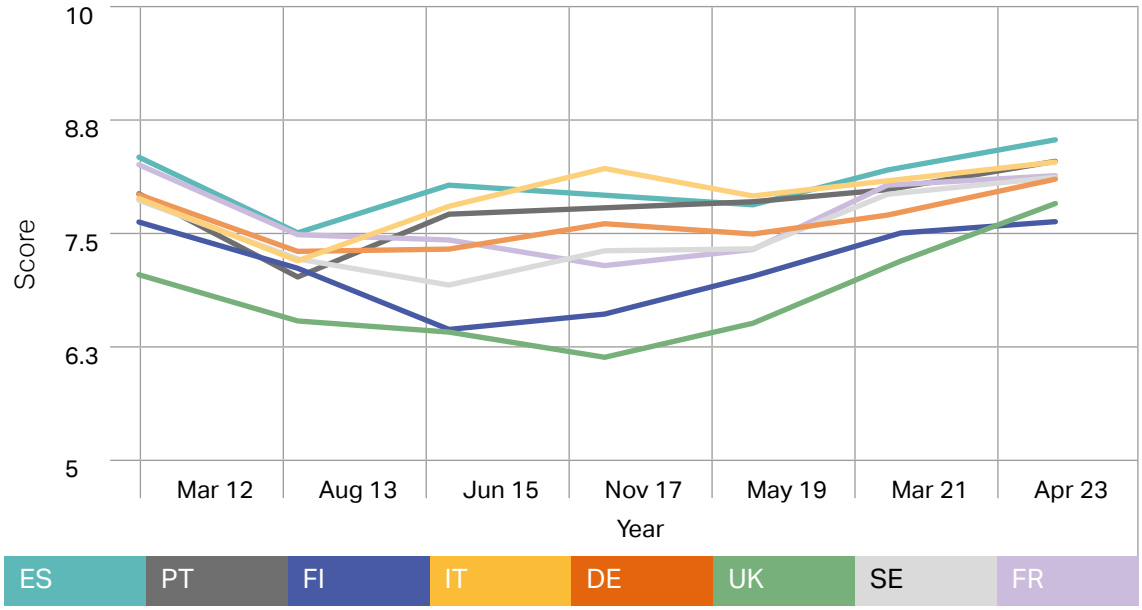
As a result, such laws can normalise climate mitigation and go some way to building political consensus around the need for action and fundamental scientific findings and reducing the risk of these issues becoming divisive. For example, despite the fact that Victoria's Climate Change Act is still yet to be fully implemented, there is nonetheless an observable "rhetorical and symbolic power in the Act and its long-term emissions reduction target, as a legislated commitment to climate change action".[11]

Symbolic power, whilst difficult to measure, can translate to 'real-world' impacts. Framework climate laws generate opportunities for stronger advocacy by providing both a solid foundation upon which to engage politicians and a yardstick for judging government's efforts. Long-term, high-level emissions targets make the 'direction of travel' clear, and that affects not only the public, the media, and politicians – but also the business community. Understanding the future of 'business as usual' allows the commercial sector to more accurately predict the shape of risks and opportunities, and respond accordingly with greater confidence. Ideally too, a framework climate law will cultivate political engagement amongst the general public. Whilst businesses, politicians and activists are already 'interested parties', the degree to which a framework climate law cuts through to the public consciousness may have important political effects. Ideally, the adoption of framework climate laws will set in train a virtuous cycle whereby their very existence anchors, centralises, and generates public and political support for the kind of policy actions that the laws themselves demand.

Could climate laws stimulate greater public engagement and cultivate a political environment that is receptive to genuinely effective climate-related policies? We examined whether public concern for climate change issues is higher in countries that have framework climate laws finding that concern for climate change is no higher (or lower) in countries with framework climate laws, compared to those without (**see Graph 3**).

Many factors are at play in this highly qualitative analysis, but this trend does demonstrate that in the broadest terms, framework climate laws may be failing to take advantage of an opportunity to deepen political engagement on the climate change issue. Public participation and vigilance is a key driver in any significant shift in society and climate laws could seek to increase public participation and engagement.

**Graph 3: How serious a problem is climate change perceived to be by the public?***




Graph 3: Data sourced from Consultant analysis.

*Respondents were asked to score how serious they perceived climate change to be on a scale of 1 – not serious at all to 10 – very serious. Data has been condensed for presentation purposes.

**Case study**

## Direct democracy in France

In 2019, France conducted an experiment in direct democracy by appointing 150 randomly selected members of the public to the Citizens' Climate Convention.

Participants at the convention were tasked with a clear mandate: to design French policies that would achieve a 40% reduction in national emissions by 2030. In June 2020, the participants revealed 149 policy proposals, including a ban on flights where the destination can otherwise be reached by train in under four-hours; restrictions on the advertising of highly polluting products; and introducing a crime of ecocide.

However, participants were disappointed when the draft climate bill, published in February 2021, failed to include 60% of their original recommendations and watered down many others. The Convention provided an advisory function and the government was not obliged to adopt any of the 149 suggestions. This was at least true for French President Emmanuel Macron (the chief architect behind the Convention), who in December 2020 revealingly exclaimed to a French media outlet:

> "you can't say that just because 150 citizens wrote something, it's the Bible or the Koran. "I'm really very angry at those activists who helped me at first but are now saying – you need to adopt it all."

Case study

## Consensus in Victoria, Australia

The Victorian Climate Change Law, although not fully operational, offers a lesson in consensus-building and political buy-in.

Whilst framework laws may consolidate consensus and attention amongst 'interested parties' (such as environmental groups or campaigners) there is no guarantee that climate laws will create political consensus. In Australia, where climate change is a particularly divisive issue, a lack of a 'starting consensus' across the political spectrum seems to have hampered the ability of the law to generate or embed widespread buy-in. As the consultants reported:

> "Climate change has long been a highly partisan political issue in Australia, with implications for the longevity and effectiveness of many climate change measures. At a federal level, this is well illustrated by the history of the [emissions trading scheme] (introduced in 2011 by a Labour government, repealed in 2014 by a Liberal/National government). In a Victorian context, it is exemplified by the history of the Climate Change Act… first introduced in 2010 by a Labour government, effectively gutted in 2012 by a Liberal/National government, reformed and strengthened in 2017 by a Labour government."

Further still,

> "there remains a real possibility that a change of government could lead to another dismantling of the Act … [I]n other countries you would have bipartisan support for the legislation … that's the real gap in Australia … in other countries where we've seen major swings politically maybe to the right, we haven't actually seen a lot of change in the legislation when it comes to climate change."

Political consensus from the very beginning (as in the case of the UK's Act) may be a critical safeguard for the survival of the law throughout subsequent, and perhaps less motivated, administrations.

Case study

## The ground-breaking UK Climate Change Act

The UK's Climate Change Act is widely recognised as the first framework climate law to take effect at the national level.

This significant political achievement drew attention in 2008 when the law was adopted, but our research showed that subsequent mentions of climate change in parliament and the media have remained fairly constant, with no clear uptick in public engagement around the reporting and monitoring cycles set by the Act.

Engaged commentators identify one of the UK Act's most important features as being the annual focus it brings to the UK's climate efforts: a 'metronome' of attention and accountability centred around the Climate Change Committee's annual report, published at the end of June each year. But we do not see this reflected in peaks of media or parliamentary attention in June or July – certainly not above the 'background' noise of other causes. More strikingly still, there is no apparent trace of the important five yearly moments when carbon budgets are set under the UK Act (July 2011; July 2016) and government plans are published to meet them (December 2011; October 2017).

This is not just an observation of this report, but also of policy-makers. When New Zealand's Parliamentary Commissioner for the Environment examined the UK Act to inform the development of the New Zealand law he noted:

> "The fact that the fourth and fifth budgets have been adopted and voted by Parliament can be regarded as evidence that the Act is working and the parliamentary consensus on which it relies is intact. But looked at from another point of view, the fact that there has never been a robustly divided debate on a proposed budget could be regarded as evidence of short-termism of a completely different variety: it may be too easy to agree to something whose consequences lie well beyond the life of the current parliament."

Without regular, substantive episodes of accountability finding their way into the public consciousness, there is the danger that efforts to reduce emissions remain abstract or distant from the population at large. The Institute for Government (IfG) notes that climate change "receives little attention in parliament" and parliamentary "committees have not made time to consider the Climate Change Committee's reports". In the same paper, the IfG recommends that "Parliament should form a cross-cutting or joint committee to scrutinise government progress on net-zero, which utilises the expertise of the Climate Change Committee and the National Audit Office to hold departments to account", see p81 of the IfG's *Net zero*: *How government can meet its climate change target*, September 2020.

In addition, the UK's National Audit Office has noted that the government has in the past overestimated the level of public buy-in into policies and that there is a lack of public understanding as to the changes that climate action will require in their own lives, see *Achieving Net Zero* by the National Audit Office, 4 December 2020.

## 3.6 Obscuring real progress

The high-level political effects of framework climate laws recall the highly symbolic Paris Agreement. The commitment to the temperature goals – like national emissions targets – embeds a clear 'direction of travel'. Unlike the Paris Agreement, however, national framework climate laws must also do much more. National frameworks need to deliver the real-world transition to meet these goals and cannot rely alone on the rhetorical power of such legislation. The framework law is an important signal of a promising trajectory, but it needs to be underpinned by other laws and regulations as well as incentives.

There is also the concern that the very presence of a framework climate law and an ambitious climate target can lead to the perception that 'enough is happening', which may lead to public disengagement with the politics of the low-carbon transition. The symbolism and high-level contextual effects can be alluring; national framework climate laws are too often just an environmental showcase.

Put bluntly, a law can itself become an alibi; a defence against a failure to meet targets. In the words of one French interviewee:

> "the texts and laws are … too often a reflection of an environmental showcase which is used to buy conscience and to seize the electorate".[12]

More easily neglected is the detail of these laws and how they function in practice. If we cannot rely on the political momentum supposedly generated by these laws and their respective 'moments', we must also scrutinise the effectiveness of their technical operation. That analysis is given particular attention in this report.

# 4 Our findings

## 4.1 Measuring success

All the framework laws that we examined prioritise mitigation, or the significant reduction of greenhouse gas emissions, in their design.

Specifically, these laws use economy-wide emissions reduction targets (often including interim targets or carbon budgets) as the organising mechanism to achieve and measure progress towards this goal. Framework climate laws therefore invite us to evaluate their success primarily by this metric.

## 4.2 Why meeting targets matters

Framework climate laws demand the achievement of emissions reduction targets by binding the government in law and/or by signalling a strong political commitment.

The enactment of framework climate legislation may be a welcome step forward, but such laws will fail if subsequent targets are left unmet. Setting sufficiently ambitious targets matters, but meeting those targets, particularly interim targets matters more.

The **importance of achieving emissions reduction targets** reflects the urgency of the threat presented by climate change.

Climate change is an urgent challenge and its trajectory (with or without sufficient human intervention) is measurable over time. Emissions reduction targets are informed by this urgency and exist to direct governance mechanisms towards their achievement. It is well-established that the global window for action (and margin for error) on climate change is rapidly closing. To constrain global warming to 1.5°C in line with the Paris Agreement, the necessary annual reduction in the coming decade is 7.6%.[13] Missing targets renders framework climate legislation ineffectual, and the science tells us that there is little room left for second chances.

Climate change is a cross-cutting, interconnected, and complex issue that presents humanity with intergenerational choices. Its impacts will have far-reaching, and in some cases, unmapped consequences. While governments should be making this a central focus of policy-making, they are now also faced with the devastating health and economic impacts of COVID-19 – this may tempt some governments to relax or neglect progress on emissions reductions. It may be seen as politically expedient for the moment at least[14] to defer action on climate change. Emissions reduction targets must therefore compel reluctant or distracted governments dealing with competing priorities to act, avoiding the broader political paralysis that can easily attach to an issue of this scale. However, economic recovery and dealing with climate change do not have to be mutually exclusive. Recent research for the UK Climate Change Committee by Cambridge Econometrics shows that meeting the 6th carbon budget on a pathway to a net-zero economy would raise GDP by 2-3% while creating jobs and increasing real disposable incomes.[15]

## 4.3 On target?

It is clear from our analysis that the presence of an emissions reduction target is not enough to secure its achievement.

Regrettably, most of the national level framework climate laws examined have not achieved their respective interim targets, with the exception of the UK.

| | Target | Reality |
|---|---|---|
|  UK | The UK deploys carbon budgets to manage emissions reductions.<br><br>Three carbon budgets representing a cumulative 7-8% reduction per period have or are soon to expire. The next period covers 2023 – 2027 and this **fourth carbon budget prescribes a further reduction of 23% of $CO_2$ equivalent**.<br><br>By the fifth budget, due in 2032, the UK must have limited its emissions by 57%. | The UK met its first two carbon budgets and is likely meet its third budget covering 2018 – 2022.<br><br>However, upon closer scrutiny, this success is less to do with the UK's Climate Change Act and more to do with the financial crash of 2009 which depressed economic output in the Act's early years. The fourth carbon budget of 2023 – 2027 will be instructive as it is the first budget that has had ample time to benefit from the Act's operation.<br><br>**The UK is unlikely to meet its fourth carbon budget as repeatedly predicted (and protested) by the Climate Change Committee**. |
|  France | France also uses carbon budgets to cap and control national emissions. Unlike the UK, France's carbon budgets include key sector-specific reduction targets.<br><br>The 2015 – 2018 budget has expired, and the second and third budgets cover 2019 – 2023 and 2024 – 2028 respectively.<br><br>Such targets work towards achieving the overarching reduction target of **40% by 2030.** | **France missed its first carbon budget capturing 2015 – 2018.**<br><br>In anticipation of another failure to meet the law's targets, the French government decided to relax its second budget. Whilst this may reflect a realistic appraisal of France's emissions outlook, merely lowering the bar without urgent additional action or investigation is clearly insufficient and contrary to the spirit of the law. |
|  Finland | The Finnish Act contains one, general long-term **emissions reduction target of 80% by 2050** compared to 1990 levels.<br><br>In 2021, this will be amended to reflect the Finnish government's updated commitment to **carbon neutrality by 2035**. | Since the law's enactment in 2015, no significant greenhouse gas reductions have been achieved. **Instead, emissions increased in 2016 and 2018**.<br><br>Whilst we would expect the impact on emissions to lag some years behind any action compelled by the law, our analysis finds that "the current rate of decline is not sufficient for reaching the target."<br><br>Our research concludes that "over the course of 2016–2018, [Finland] has **fallen increasingly behind the target path**." |

| | Target | Reality |
|---|---|---|
|  **Sweden** | The Swedish framework combines the binding target of **carbon neutrality by 2045** with non-binding milestone targets set at the start of each decade to guide and measure progress. | Like Finland, Sweden's law is relatively new and its impact on emissions is not yet entirely clear.<br><br>However, the rate of emissions reduction has slowed. 2017 was the third consecutive year in which emissions decreased by less than 1%. To meet the targets required by Swedish law, that annual reduction must rise to between 5 – 8%.<br><br>The Swedish Climate Policy Council highlighted the government's inaction in its 2020 report, finding that only 14 climate policy decisions were made over the course of 2019 and that "**the climate targets beyond 2020 will not be achieved considering the current conditions and existing policies.**" |
|  **Mexico** | Mexico has set an aspirational emissions reduction target of 30% by 2020 and 50% by 2050, conditional upon the support of the international community.<br><br>In 2018, the law was amended to include the unconditional commitment to a **22% emissions reduction by 2030**. | Although Mexico's emissions fell over 2020, it still missed its 2020 NDC target of 30% below business as usual.<br><br>Climate Action Tracker (CAT) predicts that once the Mexican economy recovers, emissions may ramp up to over 774 $mtCO_2$ by 2030, significantly higher than Mexico's most recent emissions peak in 2012, which totalled 496.3 $mtCO_2$. CAT concludes that "Mexico will need to implement additional policies to meet its NDC targets in 2030." |
|  **Victoria, Australia** | The Victorian Act deploys a long-term, binding emissions reduction target of **carbon neutrality by 2050**.<br><br>Non-binding, interim targets are set for every five year period to guide and measure progress towards that goal.<br><br>The first round of interim targets was set in 2021:<br><br>– 28-33% reduction on 2005 levels by 2025 and 45-50% by 2030 | Assessment of Victoria's Act is challenging because **the law is in the very early stages of implementation**.<br><br>Unsurprisingly, the impact on emissions has been minimal. The Victorian state has not yet outperformed other states on emissions reductions, despite the existence of a comprehensive framework climate law. Other states, such as South Australia, have achieved greater emissions reductions over recent years, even without the benefit of a comprehensive framework climate law. |

## 4.4 Key challenges

The enactment of a framework climate law demonstrates an encouraging political appetite to face the climate crisis head on, and in and of itself can have a positive effect by setting a clear pathway to decarbonisation. Nevertheless, scrutinising and evaluating the operation of existing framework climate laws will assist in identifying what works and what could work better.

At least two jurisdictions are presently taking action to enact their own framework climate laws,[16] and this number will certainly rise.[17] We now have a **narrow opportunity to assess the effectiveness of current laws** – a critical exercise for the development and improvement of future frameworks. This report identifies six broad areas where issues have arisen in existing legislative models: lack of binding interim targets, overcomplexity, delayed implementation, loopholes, and lack of accountability and enforcement.

### 4.4.1 Binding interim targets

While there is a significant high-level value in legislating 'legally-binding' long-term emissions targets – interim targets must have an equally binding status. Unfortunately, enforceable and binding interim targets are not common across the climate laws we examined. Elevating the status of a long-term target above those of the interim targets, when the former is reliant on the latter for its delivery, makes little sense. Framework climate laws which place their strongest duties so far into the future that they can have no appreciable traction now may understandably be looked on with some cynicism. As one interviewee for this report put it, "[i]t's really what we do in the next 10 or 15 years that matters. The [interim] targets are clearly the things that are going to have the most effect at shaping the trajectory."[18]

The interim targets in the UK can be seen as an example of good practice, with a duty imposed on the Secretary of State "to ensure that the net UK carbon account for a budgetary period does not exceed the carbon budget". [19]

**Spotlight on...**

| Finland | Victoria | Sweden |
|---|---|---|
| Setting aside the fact that Finland currently has two different carbon neutrality targets, any corresponding targets are described as being non-binding. When Finland failed to submit its mandated annual climate report for the first four years of the law's operation, the Chancellor of Justice intervened, issuing a decision on his own initiative. Avenues for meaningful enforcement in Finland appear in practice to be too ad-hoc and tardy to be effective . | In Victoria, the law makes it mandatory to set interim targets. However, it does not establish a legally binding duty to achieve the interim targets, and does not explicitly require that government's emissions reduction pledges are sufficient to meet the interim targets. One interviewee for this report observed that "in the earlier days it's harder to say definitively they're [if the government is] not going to make the 2050 target just because an interim target is not good enough". This is exactly why such targets must wield their own legitimacy. As the same interviewee affirms, "our view was always that there should be a duty to meet the interim targets." | With the exception of the binding 2045 net-zero target, the Swedish law uses weak language in respect of interim targets. Medium-term targets "should" be achieved, whilst emissions in Sweden "should" be 63% lower by 2030. Such merely suggestive language risks failing to compel the emissions reductions required to meet the binding 2045 target, as repeatedly highlighted by the Swedish Climate Policy Council. |

### 4.4.2 Overcomplexity

Framework climate laws are tasked with managing a highly complex and interconnected transition to a low-carbon economy. In the jurisdictions we analysed, with the possible exception of Sweden and the UK, this complexity is reflected in the laws themselves. In Mexico for example, "implementing the National Climate Change System has proved to be a huge challenge since it implies putting together representatives from 13 ministries, 32 states and representation of all municipal associations, making it very complicated."[20] In Finland, multiple similarly-named planning outputs operate in parallel, complicating the process for policy-makers and confusing the picture for the public. One interviewee explains that the "*energy and climate strategy*, drawn-up by each government [is] a policy document that needs to be co-ordinated with the *climate plans* prepared under the Climate Change Act. [However] the Act does not directly mention the energy and climate strategy, which causes a somewhat uncertain legal situation in the Finnish climate policy planning." The scale of the challenge posed by climate change means that effective framework climate laws are unlikely to be simple or lean instruments. However, the core requirements imposed by a framework climate law must be clear to avoid hindering effective implementation .

**Spotlight on...**

| Sweden | France |
|---|---|
| Compared to the UK's dense, 100-page instrument and France's complex statutory cross-references, Sweden's climate law is brief at a mere two pages. Yet the Swedish Act is more complicated than it appears, consisting of the Act and supplementary legal instruments and interim targets. | The French law has been described by one interviewee as "not clear; there are a lot of loopholes. It is a major orientation law; it lacks the binding dimension." The law's vast web of implementing provisions, many still outstanding, significantly confuses the enforcement picture, and risks undermining its effectiveness. |

Questions of enforcement demand a consideration of **where the responsibility for achieving emissions reduction targets is situated** within government. Our analysis suggests that existing formulations of accountability have the effect of isolating ambition within, typically, a poorly equipped government department, most commonly the Department for the Environment or its equivalent. Other departments such as Finance, Business, or Agriculture also have important levers at their disposal that remain underutilised or under examined.

The complexity of how responsibility is shared between government departments can also affect enforcement and accountability. Whether prescribed by the law or not, the drive to meet emissions reduction targets will inevitability involve a degree of action from all arms of government, and require deep integration. The question of **who holds ultimate responsibility** for achieving a framework law's targets is therefore critical.

The Mexican and French laws, for example, deploy a high level of policy prescription; formally and forensically dividing the emissions response between government departments and sectors. This 'effort-sharing' approach has proved unnecessarily complicated, stifling organic attempts at inter-departmental coordination. In Mexico, the proliferation of duty-bearers under the law has created basic logistical difficulties. Its National Climate Change System (SINACC), for example, has the primary objective of operating as the permanent mechanism of communication, collaboration and coordination for national climate policy. However, one consultant we spoke to observed that "because the SINACC is comprised of so many actors, it has been very difficult to have meetings and therefore trigger agreements."[21] In France, the complex and unclear distribution of duties and powers between the state and territorial authorities led one interviewee to conclude that "there is no pilot on the plane."[22]

In Victoria, the overarching duty to achieve the long-term target is shared by the Premier of Victoria and the Minister for the Environment. Both are also responsible for setting interim targets and ensuring interim targets increase in ambition over time. This approach is specifically designed to situate responsibility at the head of government and assist in achieving a 'whole of government' response. However, there are also many key responsibilities that rest with the Minister for the Environment alone, such as coordinating the emissions reduction pledging process. Some interviewees expressed concerns that situating responsibility with the Minister in this way was not the most effective way of driving a 'whole of government' reform.

In practice, it was observed that the environment department holds the requisite power to affect the sweeping, integrated policies required to meet their targets. In Victoria, interviewees found that reaching reductions "is actually a fundamental big change in economic systems, which an **environment department is ill-equipped to drive**".[23] We were told that:

> "There were concerns, particularly among civil society, that the Minister had not been successful in setting up and driving a strong process and that there was insufficient buy-in from other key Ministers … with the likelihood of poorly -developed and low-ambition pledges resulting. This was seen to be partly a reflection of the lack of power of the Minister for Climate Change within Cabinet."[24]

In Sweden, responsibility sits with the Ministry of the Environment. The Swedish Climate Policy Council has also expressed its concerns that climate policy cannot be adequately championed by the Ministry of the Environment – as opposed to 'key ministries'. It says:

> "The shortcomings of the climate policy action plan reflect weaknesses in the government's organisation, processes and leadership concerning climate policy. The Government Offices' normal procedures and current organisation appear to be insufficient to enable the government to live up to the Climate Act's ambition to integrate climate issues in all policy areas …. The current regime, in which responsibility for producing the action plan primarily lies with the Ministry of the Environment, gives key ministries and authorities a more reactive role, thus limiting the impact of the climate goals."[25]

The UK experience has shifted: initially, the Climate Change Act was the responsibility of a devoted Department for Energy and Climate Change, before being transferred in 2016, to the newly-formed Department for Business, Energy and Industrial Strategy. This may have been wise – particularly given how the initial years of the Act were dominated by progress in the energy sector. However, there is now a clear imperative to deliver progress more widely. Despite this clear statutory signal, tangible progress in sectors like transport, housing and agriculture has been needed throughout that period, but has not been delivered.

For these reasons, the Treasury (or its equivalent) is the most appropriate arm of government to have final responsibility for delivering the ultimate GHG reduction goals.

### 4.4.3 Delayed implementation

Broadly, the impact of framework climate laws is most clearly undermined by the considerable delays and time taken for some laws to become functional. The Victorian law in particular has been slow to operationalise, with the first round of interim targets only released in mid-2021 – over three years since the Act was introduced. Similarly, in France, the law demands a "multitude" of decrees and implementing provisions to be agreed. This is no small feat – many of the supporting instruments will need to answer to the framework law's "very vague affirmations"[26] – squandering more valuable time better spent elsewhere. Plainly, this lack of expediency directly contradicts the urgency demanded by the climate change challenge.

**Good practice**

The COVID-19 crisis has starkly reminded us that it is possible for governments to affect the sweeping changes demanded by circumstance and the law with sufficient urgency. Governments must apply this same degree of vigilance and action to the climate crisis. Even in ordinary times, the UK Act proves that rapid engagement is do-able. The UK set its first three carbon budgets in seven months, and published its first policy plan two months later. Getting up to speed is possible.

Delay has also beset the Finnish experience. Under Finland's framework law, the government is obliged to produce an annual climate change report, a long-term climate plan every decade, and medium-term plans that connect the two. These obligations form a crucial part of the framework set out in the Act, and yet, an 'annual' report was not produced for the first four years of the law's life. The long-term climate plan is also delayed. By requiring a long-term climate plan at least once every 10 years, Finland's first long-term plan could be published "as late as 2025" – 10 years after it was enacted. Complicating this further is the fact that medium-term climate plans must be based on the projections and goals of the long-term climate plan. Without a long-term climate plan in place, the medium-term plan has had to be largely based on the EU burden-sharing regulation,[27] and is only able to provide "an estimate of the future linear trajectory"[28] Although entirely avoidable, the disruptions to Finland's framework demonstrate the negative effects of delay.

### 4.4.4 Monitoring and review

A lack of urgency also broadly characterises the monitoring and revision of policies and plans required to meet emissions targets. There is a short window of time available to achieve real progress on mitigation, and the exact impacts of climate change can prove unpredictable. Despite this, our analysis finds that framework laws often fail to monitor progress towards targets with sufficient regularity and flexibility to respond to the challenge.

Most framework laws use periodic monitoring to track and evaluate progress on emissions. Whilst it makes sense to mandate the focusing of minds at specified milestones along the road to net-zero, the infrequency of periods for reviewing and amending policies and plans is problematic. We observed the dangers of this in ClientEarth's 2016 Mind the Gap report, which found that the UK's 2011 medium-term plan[29] became obsolete in the face of fast-changing circumstances. A similar story is observable in France, where in 2019, the French High Council for Climate reported that the current National Low-Carbon Strategy was "isolated" and "marginally operational" [30] – yet the strategy is still only reviewed once every five years. In Sweden, the Climate Policy Council lamented that "only six actions [medium-term plans], produced every four years – remain ahead of 2045."[31]

Plainly, six major decision points are not enough to direct a decades-long transition to a zero-carbon economy. Mexico's **ten year monitoring cycle** faces an even higher risk of dysfunction. Such large-scale transformations occur on long timeframes, but this doesn't mean that governments can neglect sustained, year-on-year climate action. Framework climate laws work best when they prescribe a combination of long-term reviews and short-term progress reporting. Without a long-term target, laws risk becoming directionless and may flounder. Without short-term progress reporting, it becomes much more difficult for policy-makers to quickly identify when emissions are off track and how to correct course. Requiring both outputs together means that decision-makers are able to make more informed policy choices; a now widely-endorsed approach:

> "When long-term targets and goals are not considered when setting short or medium-term targets, policymakers may prioritise mitigation measures with immediate and/or low-cost mitigation effects. However, these measures are not necessarily the same as those needed to enable key mitigation opportunities for the longer-term."[32]

> "Government should look to turn its overarching vision into a set of measurable targets. These act as a rallying point for the coalitions of support that sustain long-term focus. But government must account for the uncertainty inherent over long time periods by creating a timeline for targets to be revisited and new goals set."[33]

> "[Long-term planning] needs to be a living document, one that will evolve over time as priorities and parameters change. It should be able to align short-term and medium-term goals, as mostly reflected in NDCs with long-term targets. Fact-based monitoring will enable the detection of progress and indicate when and where course correction is necessary."[34]

The inflexibility (and sensitivity to delay) of periodic evaluation also applies to the revision of emissions targets. Identifying and implementing the least-cost pathway to carbon neutrality is a process in perpetual flux. It follows that emissions targets should be responsive to this variability in order to be effective. Instead, many framework laws fail to adequately revise emissions targets, resulting in incoherence and significant barriers to implementation. The Finnish experience is particularly illustrative of this problem – the Act's 2050 target now co-exists with a 2035 climate neutrality target, agreed in government negotiations in 2019. The existing medium-term plan from 2017 also remains unchanged, despite the need for this being recognised by the government itself.[35] In France, changes to overall ambition have been implemented entirely outside of the formal mechanism of review provided for by the framework. Instead, in 2019, the 2050 target was revised to commit to carbon neutrality, an update that has had no impact on the (now incompatible) 40% by 2030 target enshrined in the framework. Ultimately, any inconsistency in levelling-up ambition must be recognised, revised, and remedied.

**Good practice**

Despite valid criticisms surrounding the infrequency of medium-term plan generation, the Swedish Act does require that climate policy plans are produced in the year following ordinary elections to the Riksdag. This seeks to align climate action with the political cycle and to guard against the potential for plans to be abandoned or neglected by a new administration.

**Good practice**

The Victorian Act establishes a five yearly cycle for setting interim targets and reporting on their achievement (which is intended to align with the five yearly reporting cycle of the Paris Agreement). This is also supported by a requirement to report annually on GHG emissions (which in practice has been a little devalued to date given delays in data availability from the federal government) and a requirement to produce a climate science report every five years (prior to the development of the next round of emissions reduction pledges). This is all designed to support increasingly more ambitious and science-aligned emissions reduction commitments over time.

### 4.4.5 Loopholes

Flexibility is an important ingredient in any framework climate law. It acknowledges the external forces that can genuinely limit a domestic government's power to reduce emissions, such as global economic shocks, pandemics, or natural disasters. Flexibility mechanisms can provide a legitimate means of adjusting levels of mitigation in comparable circumstances. Where governments take all possible measures towards targets, flexibility can work to retain the political capital that would have been lost had the target been missed. Problems arise when **flexibility mechanisms open loopholes** in the law that undermine its key purpose: to reduce emissions at a pace sufficient to achieve overall carbon neutrality targets.

#### (i) Target ranges

Target ranges may be useful at the international level where multiparty consensus is both a priority and a challenge.

### (ii) International credits

'International efforts' are sometimes used to compensate for when domestic action falls short of meeting targets. Typically, this involves the purchase of emissions credits or emissions reductions made abroad. There is a clear contradiction in this flexibility – if framework climate laws are intended to push domestic action on mitigation, the introduction of international credits undermines this aim and should be limited to very exceptional circumstances or avoided altogether.

## Crediting confusion – Sweden

**The Swedish law does limit the extent to which 'international efforts' can contribute to meeting its 2030 and 2040 targets, but not to a sufficiently clear degree.**

Confusing the picture further is the contradiction between the Swedish government's 2019 statement, where the "ambition is to achieve the [2020] goal **fully through national measures**" and the Swedish Climate Policy Council's later conclusion that "the [2020] target will be achieved, but not solely through domestic emission reductions… some **use of so-called flexible mechanisms will be needed**, by which Sweden invests in verified emission reduction projects in other countries."

Beyond this inconsistent messaging, Sweden's ability to use international credits is problematic whether this mechanism is actually used or not. The option of using international offsets is enough alone to undermine the integrity and purpose of framework climate laws. If the government feels it has perpetual recourse to this flexibility, the incentive to act sufficiently is weakened and it becomes more difficult to challenge inaction or inadequate progress.

### (iii) Banking and borrowing

'Banking and borrowing' is a flexibility often seen in financial budgets, and this is where it should stay. The overarching rationale simply does not translate to carbon budgets. Broadly, banking allows for the overachievement from one carbon budget (surplus reductions) to be transferred to an underperforming budget, allegedly "reward[ing] early action". Borrowing is intended to "smooth out unexpected events towards the end of a budget period, for example, a severe winter leading to higher energy demand and more emissions."[36] However, banking and borrowing complicates the budgeting process and risks losing momentum on emissions where there is no room for backsliding, whilst also bolstering political obfuscation.

## Banking on it – the UK

**The UK Act was the first to introduce banking and borrowing mechanisms to framework climate laws, and it has not been without problems. The banking mechanism in particular has proved controversial.**

The current Chief Executive of the Climate Change Committee has said that the UK law's banking mechanism "**must be one of the biggest risks to future progress on emissions reductions**." This is not an overstatement. Overachievement of the UK's first and second carbon budgets has been used to relax the current third carbon budget (2018 – 2022). Given that this overachievement was influenced primarily by the 2008-9 global recession, it is not clear why this justifies the UK diverging from the trajectory of emissions reductions required to stay on track to meeting the 2050 target and interim budgets.

Cynically too, the banking mechanism offers governments flexibility in their climate messaging. The availability of banking and borrowing means that governments can express confidence that carbon budgets will be met, even when projections demonstrate that progress is off track. This risks stifling accountability and side-steps any challenge under law.

Banking therefore risks undermining the key purpose of a framework law: to drive steady emissions reductions over the long term. Instead, where a subsequent budget is relaxed to allow for greater emissions, momentum is lost and the trajectory of mitigation is made yet steeper. It cannot be that the appropriate response to exceeding one carbon budget is to emit extra emissions in later budgets, yet banking allows and encourages this.

### 4.4.6 Lack of accountability and enforcement

Underperformance and delay are common issues plaguing all the framework laws examined, prompting the question: **what are the consequences for governments** when they fail to meet their obligations? When constructively drafted, sanctions can be an additional accountability tool. Yet their availability is absent from all but one of the framework laws considered in this report. In Mexico, where sanctions apply to certain reporting requirements,[37] their application is too limited to meaningfully compel a government to act. In short, there is currently little clear evidence across all six jurisdictions that negative repercussions arise when the requirements of framework laws are neglected.

A law's enforceability is judged most immediately by the strength and clarity of its provisions. The Swedish law's use of "shall" for its long-term targets and only "should" for its medium-term targets has been noted.

The Victorian Act, likewise, is lacking tightly-drafted and mandatory provisions: "There is no legal responsibility … to achieve the interim targets. Nor does the Act require the Minister to ensure that emissions reduction pledges are sufficient to achieve the interim targets, nor provide for compensating any gap. … Including statutory duties to achieve interim targets and ensure that the pledges are sufficient to achieve the targets would boost accountability considerably in this area. It would also potentially help open up a clear pathway for third party review of decisions under the Act."[38] Opportunities for using judicial review to enforce the Victorian Act's "target and pledge-related provisions" are limited by how they have been drafted.[39] This is so even though its 2010 predecessor was subject, in 2015, to an independent review, that recommended broadening legal standing for judicial review and providing for merits review of specific administrative decisions: neither recommendation has been acted upon.[40] "Given [that] the core emissions reduction responsibilities are essentially

non-justiciable, accountability ultimately relies on public and political pressure."[41] As we have seen, such pressure alone cannot necessarily be relied upon to yield sufficient progress.

Newer framework laws like New Zealand's 2019 Zero Carbon Law[42] and Ireland's proposed revision to its 2015 law[43] show little sign of moving in the right direction. Indeed, the enforceability of New Zealand's emissions targets are expressly limited in the law: "No remedy or relief is available for failure to meet the 2050 target or an emissions budget, and the 2050 target and emissions budgets are not enforceable in a court of law, except [that …] a court may make a declaration to that effect, together with an award of costs."[44] The duties in the draft Irish law are based on open-ended language (to "pursue" a transition rather than "achieve" one) and are placed on "the State", rather than any minister or the government as a whole.

In addition to sanctions, judicial review and intervention can be another effective driver of accountability. However, courts rely on clear and binding duties to act, and in most cases, will be reluctant to encroach on the policy discretion afforded to government without clear legislative direction. All the laws examined fail to include provisions that explicitly provide for judicial review, greatly reducing opportunities for accountability when governments fall short of their obligations.

That said, the UK Climate Change Act draws strength from emissions targets which on their face appear enforceable; duties are imposed on the Secretary of State "to ensure" that targets are met. The UK government's pre-legislative literature also explicitly leaves the door ajar for judicial scrutiny and intervention:

> "Our view is that the duties in the Bill – including the requirement to meet the targets and budgets – are stringent and legally enforceable. The statutory basis means that any failure to meet a target or budget carries the risk to government of judicial review, with sanctions at the discretion of the courts. No government will take this risk lightly."[45]

In a recent survey of parliamentarians, governments advisers, experts and stakeholders, "the limited enforcement mechanisms of the Act were its most-often cited weakness."[46] So, despite its hard legal language, it would seem to many that the UK Act could still go further."

# 5 Recommendations

## 5.1 General principles

Climate change is challenging to address because it is a multidimensional problem, requiring emissions reductions across all sectors of the economy. Framework climate laws will necessarily touch on such diverse areas of policy-making as transport, agriculture, energy, buildings, manufacturing and infrastructure. Action on mitigation and adaptation will require regulatory and legislative changes in a wide range of areas, but will also need to work with and complement other regulatory frameworks. Any climate solutions must integrate a range of other environmental, social, and economic considerations.

To reflect this, framework climate legislation should include provisions clarifying that government action on climate goals and targets must be taken consistently with existing social and environmental principles and national objectives, as is done in the Victorian legislation."[47] This will acknowledge the complexity of decisions that governments must make when pursuing emissions reductions, and ensure that policies and plans made under framework laws respect existing environmental, human rights and other legal frameworks so that policy choices ensure that climate action is a win-win that retains public support.

**The relevant principles that should be considered include the following:**

**1 Principle of integration**

The principle that environmental protection requirements should be integrated into all other areas of government policy-making to promote sustainable development.[48] It also implies that new climate policies ought to be implemented consistently with existing environmental laws, such as those protecting biodiversity. This could also be made explicit in legislative drafting: see Article 11 of the Treaty on the Functioning of the EU.[49]

**2 Principle of sustainable development**

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The balancing' in principle 2 to read "The protection of the environment for future generations should be at the heart of all climate policy making. Reference can also be made to the United Nations Sustainable Development Goals (SDGs).[50]

**3 Just transition**

The concept of a just transition was developed by the trade union movement to recognise the need to ensure that those whose livelihoods may be affected by the transition to a low carbon economy are protected and given sufficient support and time to adapt to those changes. The protection of the environment for future generations should be at the heart of all climate policy making. Reference can also be made to the United Nations Sustainable Development Goals (SDGs).

**4 Efficiency first**

In energy systems policy-making, the principle of efficiency first is gaining traction as an important element of policy-making. In the EU's Governance Regulation,[51] it is defined as:

> "Taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions"[52]

**5 Human rights law**

Recognition that climate policy ought to be implemented consistently with national human rights legislation or international human rights treaties to which the state has committed. An explicit recognition of human rights may be especially important where there are minority or indigenous populations that are vulnerable to climate change, but the intergenerational impacts of climate change are likely to be of universal concern.

**6 Prioritisation of nature-based solutions**

'Nature-based solutions' meet mitigation goals and adaptation needs in ways that work with nature to produce significant benefits for people, the climate and biodiversity. They include the protection, restoration or management of natural and semi-natural ecosystems, the sustainable management of productive land and seascapes, or the creation of novel ecosystems such as urban 'green infrastructure'. [53] For example, a nature-based adaptation solution for flood prone regions could involve the restoration of mangrove habitats.[54]

## 5.2 Impose clear duties on government to meet long-term and interim climate targets

The primary focus of framework climate laws in securing economy-wide emissions reductions should be influencing and constraining government policy and decision-making. Framework laws should set clear requirements for **long-term greenhouse gas (GHG) reduction targets, as well as reasonable interim targets**, to be set and, most importantly, met.

These targets must be set consistently with the 'best available science' and the state's international obligations under the Paris Agreement, including, most crucially, the principle of 'highest possible ambition'.[55] For most nations, including all OECD nations, this will mean a net-zero goal by 2050 at the latest.[56]

Keeping on track to a long-term goal decades in the future requires the existence of clear interim targets, that operate both in the short and medium-term. There is also a need for progress assessments to be undertaken at frequent intervals to maximise the potential for course correction. Therefore, governance processes for encouraging and monitoring the implementation of policies and plans are important, whether or not they are prescribed by the framework climate law itself or in secondary government

policies and procedures. It may be most efficient to undertake these reviews when annual national emissions data is collected and reported to the UNFCCC.

Framework laws should be clearly drafted to ensure that Ministers across government have clear duties to ensure that both long-term and interim term GHG reduction targets at met, with ultimate responsibility for achievement sitting as high as possible in government. Ideally, with the participation of Treasury as discussed further below. As noted above at **section 4.4.1** above, this has not been the case with the laws studied. What is required, and when, needs to be more tightly defined and accountability maintained within the national executive in order to keep emissions development on the desired path.

Efforts to improve external accountability mechanisms for policy progress – in the UK, Finland and France, for example – are certainly laudable but not always effective. In Finland, the Finnish Climate Change Panel called for changes to the government's annual report in 2019, recommending a move away from descriptive reports and towards a more critical assessment of the adequacy and challenges of Finnish climate policy. The Environment Committee also stated that the relevant reporting should be strengthened to explain how the realisation of climate measures corresponds with the more ambitious climate policy targets and what measures should be taken to get the emission development on the desired path.[57] The French experience reflects similar efforts to evolve tighter systems of governance capable of holding government more accountable for a lack of progress. The Climate Energy Act of 2019 created the High Council for Climate, replacing its less powerful predecessor, the Expert Committee on Energy Transition. This former Expert Committee delivered annual opinions "on compliance with the carbon budgets already set and on the implementation of the current low-carbon strategy."[58] But the new body has an "expanded mission", more resources, and is "improving governance and regular review of climate policy as well as providing [advice on] concrete and operational implementation in all sectors."[59] Its work is now more visible and has greater weight, with its evaluations and monitoring reports being presented to the standing committees of the National Assembly and the Senate responsible for energy and the environment.[60] Such improvements are welcome, but they may also reflect how the underlying legal frameworks in question have not been able to generate adequate progress in the first place.

At the same time, and though there may not be a bright dividing line between the two, these efforts at furthering external scrutiny should be distinguished from the development of new systems of administrative governance and new processes of internal government accountability that are aimed at facilitating the implementation of government commitments.

In the UK in the early 2010s, we saw how the government introduced a (short-lived) system of policy milestones that were updated and published every quarter. In its October 2017 Clean Growth Strategy, the government introduced a set of "actions and milestones" divided up by government department[61] to be followed. These actions and milestones were to be updated in the government's subsequent annual reports to the Climate Change Committee. However these updates were not required by the law. Reports like the Institute of Government's "*Net Zero: how government can meet its climate change target*"[62] are important contributions to the same end. The Climate Change Committee is also actively concerned with ensuring appropriate governance structures are in place in government, and provides guidance and recommendations to this end.

There will need to be internal government processes to ensure that the laws are met, but these should be guided by clear statutory emissions reduction duties that operate across government, with ultimate responsibility placed as near the top as possible.

## 5.3 Impose duties on decision-makers across government to act consistently with climate targets

Given the challenges described above at **sections 3.6.1** and **4**, in particular the lag time between policy implementation and emissions data showing the effect of those policies in the real world, legislation should **also impose duties on decision-makers throughout government to act and / or make relevant statutory or policy decisions consistently with the emissions targets and budgets established in national climate law**.

**Duties to act consistently with the target are just as important as the duty to meet the overall GHG emissions reduction target, because they can:**

**i.** ensure that the emissions implications of policies and decisions are calculated and taken into account as they are made, rather than after the fact when real world GHG emissions impacts are assessed;

**ii.** require regular re-assessment of the above, enabling policies to be monitored and adjusted over time; and

**iii.** encourage mainstreaming of climate concerns across government.

Further, these duties can be remedied and enforced in a way that a duty to meet emissions targets can never be. **Therefore, new framework climate laws should focus their attention on crafting effective duties to make relevant policy and day-to-day operational decisions consistently with overarching GHG reduction targets**. These duties should apply to decision-makers throughout different levels of government, but most critically, to heads of departments and ministers.[63] Finally, such duties should be aimed at driving the integration of climate reduction targets and policies in departments regulating (inter alia) land use planning, transport, agriculture and finance. Framework laws should require the development of over-arching national policy that is able to filter down whilst also allowing devolved decision making at the local level.

Examples of "mainstreaming" (integration across diverse government bodies) concerns like this across government include the Public Sector Equality Duty in the UK, which applies across all public authorities. It requires all decision-makers to consider the effects of their work on persons protected under the Equality Act 2010, being those groups who often suffer discrimination.[64] Public authorities must also publish details of how they have met the duty periodically. Similarly, some human rights legislation requires a statement of compatibility to be made by government when new legislation or regulation is passed,[65] to ensure that the human rights implications of the new law have been adequately considered and the State has discharged its human rights duties. These and other methods may be used to ensure that duties are imposed across a wide range of authorities or agencies, and that each of those has sufficient plans and procedures in place to ensure its activities are consistent with GHG reduction targets and that all of government is pulling in the same direction to achieve compliance.

There is the risk that such duties become mere tick-box exercises - this must be guarded against by developing robust systems of carbon accounting across government, which should be centralised into Treasury, ideally, as this department has the ability to synthesise multiple areas of state policymaking, and to allocate sufficient funding to actually implement those policies. We discuss the problem of "siloing" further in the following section.

## 5.4 Avoid silos

A theme commonly identified in the performance of framework climate laws is the unevenness of progress – [or ;] emissions reductions outside the energy sector have typically been very limited. Relatedly, having ministries or departments other than the environment ministry focus consistently on achieving emissions reductions is often a serious challenge.

Framework climate laws have sought in different ways to address this problem – that is, to integrate climate change considerations 'horizontally' through government – but none wholly successfully. One approach is to divide up overall mitigation goals and allocate "effort-sharing" to different ministries of government who in theory should be able to drive the requisite progress in those sectors. In one sense, this "siloing" of mitigation efforts is a softer version of the quite high degree of policy prescription set out in the French and Mexican laws. A high level of prescription restricts government flexibility to adapt to changing political and economic circumstances. It also introduces extra complexity that should be avoided.

There are serious practical obstacles too, not least that emissions cannot be cleanly divided between economic sectors or government departments. Emissions deriving from transport, for example, are as intertwined with the decarbonisation of the electricity grid as they are on the roll-out of EV charging infrastructure.

Sectoral carbon budgets were tried in the UK in 2010[66] but the practical effect was "to erect lots of new barriers to achieving the transformation change necessary[67] with departments struggling to work together effectively. Departments with responsibility for delivery were beholden to Treasury – yet Treasury faced none of the risks from a lack of delivery.

Ideally, ultimate responsibility for the delivery of the ultimate emissions reduction goals needs to be located within the Treasury (or equivalent department/bureau etc.) and with the relevant official responsibility for the nation's overall budget. Practically, ambition will inevitably be divided between government departments but the best approach is to ensure that the "buck stops" with those responsible for the nation's overall budget.

## 5.5 Ensure duties are binding and enforceable

Decision-makers should be legally bound to meet both the GHG reduction targets, and the decision-making duties set out above in order to ultimately meet the emissions targets that define adequate progress. Both public and political accountability mechanisms should be designed to ensure this is achieved.

In framework climate laws sanctions need to be carefully considered. They should be constructive, not punitive, and aimed at ensuring timely and effective course correction. But their genuine availability in some form is essential – partly as a signal of the strength and 'bindingness' of a framework climate law, and of how seriously the law needs to be taken, otherwise, framework climate laws will come to be considered 'paper tigers'.

As currently constituted, framework climate laws make great symbolic use of the power of the law to elevate government goals and aspirations beyond the merely political – and with good effect. But at the same time those same provisions are prone to melt away under the heat of enforcement. As such, they protect governments from the consequences of not performing in line with goals that on their face appear strong. This is not a recipe for long-term success.

**We therefore suggest that all effective framework laws need both:**

**i.** legally binding language to impose enforceable duties on government, using the language of obligation, such as "shall" and "must"; and

**ii.** provisions that provide for relevantly concerned members of the public to enforce the laws provisions through both merits and judicial (administrative) review.

Some governments will be reticent to allow for litigation to enforce certain duties that may be difficult to meet, however there is little justification for passing a law that cannot be enforced and the engagement of the public with these framework laws is crucial for both their effective operation and their utility as a mechanism to secure public participation in the state's climate policy. It is important to start with the principle that the public should be able to enforce compliance with these laws. Standing to bring such claims could be reasonably limited to certain kinds of litigants, such as environmental NGOs of long-standing stature in the relevant country, or classes of persons particularly affected by climate change, for example.

## 5.6 Create an independent adviser

4 of the 6 framework laws studied provided for the establishment of a formal, independent expert adviser or advisory body, to provide the government and relevant officials with independent advice on the science of both climate change mitigation and adaptation.

In Finland, the Climate Change Panel is an independent advisory body whose task is "to collect and itemise research data on the mitigation of climate change and adaptation to it for the planning and monitoring of climate change policy".[68] In practice, the Climate Change Panel does not make formal assessments of government climate policy. Instead, its role is more to provide a solid knowledge-base for policy-makers as opposed to systematically and scientifically assessing progress towards targets. In recognition of the value such independent experts can provide, there are calls for the Climate Change Panel to be more involved in policy-making. Suggestions include having the Climate Change Panel "provide an assessment of the government's final climate plans, in particular from the perspective of how

scientific recommendations on the drafts have been taken into account" and that "the government should be obliged to take the opinions of the Panel into account in the final version of each climate plan."[69] Neither recommendations have gained traction, and currently, the government is obliged to merely request (but not consider) a statement on draft plans from the Climate Change Panel.[70] In Victoria too, provision for the input of independent scientific expertise is also limited. Unlike the Finnish law, the Victorian Act does not establish an independent scientific body and the influence of independent experts is limited to the determination of interim targets. This means that "there is no provision for input to [emissions reduction] pledges, where independent expertise could provide additional capacity in identifying emissions reductions potential."[71] If independent panels can add value to the setting of interim goals (2021-25 and 2026-2030 in Victoria's case), they must also have an important insight into the setting of emissions pledges.

These advisers are important as climate change science is a huge field that is constantly being updated with new findings. Although the existence of the IPCC, an intergovernmental body that synthesises the field of climate change science periodically, aids in the interpretation of climate science for policymakers, there is still significant complexity that warrants providing policy-makers with simplified and country-specific recommendations based on the "best available science," as required by the UNFCCC and the Paris Agreement.[72] In Victoria, the advice of the expert body is not carried through to include guidance on policy development, or progress monitoring. Further, there is no prioritisation of best available science in the considerations that the panel must take into account in developing their recommended targets, nor prioritisation of the panel's advice in the considerations that the Premier and the Minister must take into account in setting the targets.

The International Union for the Conservation of Nature notes that independent scientific and technical advisory panels are valuable tools for delivering technical advice, particularly when addressing controversial conservation and development issues and are frequently used in the field of environmental regulation.[73]

Independent scientific advisers are also important for accountability and credibility of framework climate laws as they can assist to depoliticise the process of decision-making and ensure that policy is based on politically neutral evidence.[74] They should be established to ensure that their recommendations are unbiased advice that is free from influence from industry or other stakeholders, including national governments. They should act as a "critical friend" to government, improving accountability[75] by ensuring that officials and the public are clear about progress made towards GHG reduction goals and the potential pathways to get there, by providing progress reports and analysis of areas for improvement. Finally, the ability of such advisers to generate public trust cannot be overlooked. Independent advisers can facilitate public participation by being tasked with consulting the public about climate impacts, as well as adaptation and mitigation measures. Those interviewed in relation to France's framework law noted the absence of a scientific information body as a missed opportunity to educate the public and media, and guide policy-making.

The body should be composed of prominent experts who are recognised as authorities in their respective fields internationally, covering climate science, economics, behavioural sciences and relevant sectoral expertise. [76]

**We emphasise that the body should:**

- **i.** be established to be independent of government (both financially, administratively and in relation to appointments);
- **ii.** be empowered to advise based on the "best available science" and policy developments, including on matters related to the national emissions reduction targets, carbon budgets (interim targets), mitigation pathways and the assumptions and models underpinning them, and best practice mitigation and adaptation policy; and
- **iii.** be empowered to monitor and review the government's progress to achieving the overall GHG reduction goal and interim targets;
- **iv.** be empowered to conduct consultations with all stakeholders; and
- **v.** receive sufficient funding in order to carry out the above functions.[77]

## 5.7 Keep it simple

Precise, prescriptive and enforceable laws need not be complex or complicated. Indeed, there is value in constructing a legal framework that is lean – focused on the sustained generation of adequate policies – and clear, for the sake of public and political accountability.

As just discussed, expert bodies, civil society organisations, and indeed governments, can be expected to work to develop new processes and governance structures that better meet the demands of underlying climate laws. Those governance structures need not be specified within framework climate laws themselves. What is needed from each underlying framework climate law is clear demands which governance structures are able to respond to – not complexity, which through its various forms can hinder effective implementation.

The Mexican law, the GLCC, manages the interventions of five different national climate change bodies, and though these bodies have distinct functions, the resulting system is undeniably complex – and burdensome. For example, "implementing the National Climate Change System (SINACC) has proved to be a huge challenge since it implies putting together representatives from 13 ministries, 32 states and representation of all municipal associations, making it very complicated to implement."[78]

Similar arguments can be made concerning the planning outputs under framework climate laws. Connecting-up long- and short-term plans is a necessary challenge in such laws, but needing to manage and align parallel plans over overlapping periods can confuse matters.

In Finland there is an "energy and climate strategy, drawn-up by each government, [which is] a policy document that needs to be co-ordinated with the climate plans prepared under the Climate Change Act. [However] the Act does not directly mention the energy and climate strategy, which causes a somewhat uncertain legal situation in the Finnish climate policy planning.[79] Public accountability suffers too. In the media "The Climate Change Act has got mixed with the medium-term climate change policy plan and its contents".[80]

In France, there is a Multi-Annual Energy Programme (PPE) and a National Low-Carbon Strategy (SNBC) which "are set to complete the policies [described in the law] and to detail them."[81] The PPE "must be compatible with the carbon budgets and sectoral limits established by the SNBC"[82] "but still the relationship between the SNBC and PPE is not clear."[83] And both the SNBC and PPE also "have to conform to the national energy climate plan." This is a confusing picture, which hinders a clear assessment of overall policy progress.

## 5.8 Integrate adaptation

Of the national framework laws studied, only four also contained provisions relating to adaptation issues: Finland, Mexico, Victoria and the UK. This is a missed opportunity. We suggest that adaptation ought to form a part of framework climate laws to ensure that both emissions reduction and adaptation are considered together and that both issues are given sufficient priority.[84]

Adaptation planning and strategy is clearly different to mitigation policies, but these areas are strongly linked. When making decisions about land use, infrastructure, transport planning, city planning, energy systems, agricultural systems, it is crucial to ensure that all new infrastructure and systems are future proofed and well designed for the long-term. Adaptation planning needs to be front and centre, to protect both citizens and the economy from increasing natural disasters, sea level rise, and heat stress, as well as diminishing natural resources.

New Zealand's *Climate Change Response (Zero Carbon) Amendment Act 2019*[85] provides a model for integrating adaptation planning into framework climate laws. Part 1C of the Act requires the preparation of a national climate risk assessment every six years, to assess and identify the most significant risk to the economy, society, environment, and ecology from climate change. The relevant Minister must then prepare a national adaptation plan every two years, on which public consultation must be undertaken.[86] The UK's Climate Change Act 2008 provides for the Minister to instruct various government authorities to prepare adaptation risk assessments and adaptation strategies and to report on progress. To date authorities that have been required to produce reports under this power include financial regulators such as the Bank of England, airport, port and rail operators and electricity and water utilities.[88] The power has been described by the Climate Change Committee as a critical mechanism for gathering and presenting evidence to help understand climate change risks to the UK, and the effectiveness of actions that have been taken, or are planned, to manage these risks.

Mexico's high vulnerability to the adverse impacts of climate change has historically meant that adaptation measures have been prioritised over mitigation efforts. The prominence of adaptation in the country's General Law reflects this, particularly when compared with less precise references across the other laws studied for this report. Mexico's framework law requires the generation and bi-yearly review of a national adaptation policy. It prioritises the coordination of the national, state and local levels, and requires all such government bodies to include adaptation actions in their policies. The law also creates a program to specifically assess the climate risk of those municipalities most vulnerable to climate change impacts, and requires the federal government to work with the local-level to introduce urban planning programs that take climate change into consideration.

However, our consultant found that "in terms of implementation, mitigation has received more attention and resources."[89] At COP25, Mexico appeared to recognise this in its commitment to help lead the review of the Green Climate Fund and Global Environmental Facility's allocation of resources in order to direct more funding to adaptation efforts.[90] Despite this encouraging (albeit international-focused) signal, and after two years of government, Mexicans are still waiting for the new Special Climate Change Program to be released under the adaptation policy. As of June 2020, this has yet to be shared with civil society.[91]

In Finland, the law requires the production of a national adaptation plan to "be approved by the Government at least once every ten years" and at least once every electoral term.[92] Finland's adaptation plan is overseen by the Ministry of Forestry and Agriculture, and must also "include a risk and vulnerability review, as well as action

plans on adaptation specific to each administrative branch, if necessary."[93] The latest national adaptation plan was published in 2014, one year before the Climate Change Act came into force. In October 2020, the Finnish government published their mid-term evaluation of the adaptation plan's progress. It found that varying institutional capacities to carry out adaptation measures translates to an uneven appraisal of climate risk (and subsequent actions) across sectors, with some operating on an "exclusively reactive" basis.[94] Climate action at the national level has not necessarily trickled down to the subnational bodies that are crucial to implementing locally-effective adaptation measures. Regrettably, the Finnish government itself concludes that "the extent to which the Adaptation Plan has reached the regional and local level is limited."[95]

Other jurisdictions have chosen to capture climate change adaptation measures under laws outside of the climate framework. In Sweden, adaptation provisions are concentrated in the Swedish Planning and Building Act 2010 and the Ordinance on Agencies' Climate Change Adaptation 2018.[96] Whilst the former (and older) act entrenches an uneven sector-specific approach, the latter obliges numerous agencies to "within its area of responsibility and within the remit of its mandate, initiate, support and evaluate climate adaptation work." However, the "authority of [those] agencies varies from simply providing support to being prescriptive."[97] The degree to which this impedes progress on adaptation is uncertain given the relative youth of the ordinance, however this redistribution and integration of responsibility is nonetheless a step in the right direction.

Overall, national adaptation policy should include both the integration or mainstreaming of adaptation across relevant government agencies or departments, but it should also include a high degree of public participation and decision-making. Under the Finnish law, "the public must be given an opportunity to review the draft [climate] plan and submit opinions on it in writing."[98] In terms of adaptation policy, the participation of Finland's Indigenous Sami community is critical as they are especially vulnerable to climate change impacts. However, the Finnish government has yet to establish a designated mechanism to ensure the Sami people's meaningful participation in such decisions, despite a broad recommendation to that effect from the Human Rights Committee.[99] Public participation helps to generate public buy-in for proposed adaptation measures, some of which may be expensive or inconvenient. Regional and local adaptation strategies should therefore be devolved as much as possible, as this may in turn necessitate an increased ability to raise taxes at the local level to invest in adaptation. The legislative framework must enable local communities to participate in the important adaptation planning decisions that affect them. After all, climate change will most significantly affect people's lives at the local level, and local communities need to be empowered to decide how to both prepare and adapt to the changing environment around them.[100]

# 6. Conclusion

## The problem of climate change and its impacts poses a clear and urgent challenge for governments worldwide.

The six jurisdictions we examined have all taken important steps to mitigate the crisis by being the first of a small number to implement national framework climate laws. This 'first generation' of climate laws raises the global benchmark for ambition on climate change at a time when the need for stronger action by governments is becoming increasingly urgent. In a practical sense, the laws we examined also provide other jurisdictions with a legislative model from which to work, assisting and inspiring the next generation of framework laws. The imperfections of the laws studied do not devalue these two crucial contributions to the wider ecosystem of climate governance – all six jurisdictions have set an example for the global community. We must now learn from where these laws have succeeded (and failed) in order to inform and strengthen the immense potential of similar laws around the world.

# 7. Endnotes

1 As defined by the UN; 191 out of 197 Parties have ratified the Paris Agreement as of April 2021. See: https://unfccc.int/process/the-paris-agreement/status-of-ratification.

2 The Paris Agreement 2015, Article 2(1)(a). See: https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

3 Ibid, Articles 3, 4(2) and Preamble, respectively.

4 GermanWatch, Global Climate Risk Index 2020, p4.

5 Keesing, F., Belden, L., Daszak, P. et al. Impacts of biodiversity on the emergence and transmission of infectious diseases. Nature 468, 647–652 (2010). https://doi.org/10.1038/nature09575.

6 London School of Economics, Grantham Institute, Climate Change Laws of the World https://climate-laws.org/.

7 Eskander, S.M.S.U., Fankhauser, S. Reduction in greenhouse gas emissions from national climate legislation, Nature Climate Change 10: 750-756 (2020) https://doi.org/10.1038/s41558-020-0831-z

8 Austria, Bulgaria, Denmark, Finland, Guatemala, Iceland, Ireland, Japan, Korea, Malta, Mexico, the Netherlands, New Zealand, Norway, Peru, the Philippines, Sweden, Taiwan, the UK, Victoria (Australia).

9 Eskander, S.M.S.U., Fankhauser, S. Reduction in greenhouse gas emissions from national climate legislation, Nature Climate Change 10: 750-756 (2020) https://doi.org/10.1038/s41558-020-0831-z

10 Published by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics, available here: https://climate-laws.org/.

11 Consultant report: Victoria's Climate Act, p28

12 Mr Fourqin, as quoted in our Consultant report: France's Energy Transition for Green Growth Act.

13 Carbon Brief, Analysis: Coronavirus set to cause largest ever annual fall in $CO_2$ emissions, 9 April 2020.

14 The UN Development Programme and Oxford University's recent global poll on the issue of climate change reveals that two-thirds of people across 56% of the global population think climate change is an international emergency, with 59% of those respondents agreeing that the "world should do everything necessary and urgently in response." Only 10% of respondents thought that "the world is doing enough on the issue", suggesting that apathy on emissions is increasingly a politically damaging policy. People's Vote on Climate: Results, January 2021, pp6-7.

15 https://www.theccc.org.uk/publication/economic-impact-of-the-sixth-carbon-budget-cambridge-econometrics/ Dec 2020.

16 Ireland recently enacted The Climate and Low Carbon Development (Amendment) Bill 2020, which amends the existing Climate Plan of 2015 and promises to commit to a climate neutral economy by 2050; Canada's Climate Change Accountability Act (Bill C-22) is also underway, promising a commitment to 80% emission reductions by 2050 (compared to 1990 levels) and a new obligation on the Environmental Commissioner to propose action and report on interim progress.

17 European Climate Foundation, Climate Laws: frameworks to help governments become climate neutral, 4 February 2020.

18 Consultant report: Victoria's Climate Act, p20.

19 Section 4(1).

20 Consultant report: Mexico's General Law on Climate Change.

21 Consultant report: Mexico's General Law on Climate Change, p22.

22 Consultant report: France's Energy Transition for Green Growth Act, p36.

23 Consultant report: Victoria's Climate Act, p14.

24 Ibid.

25 Report of the Swedish Climate Policy Council, March 2020 p9.

26 Consultant report: France's Energy Transition for Green Growth Act, p24.

27 The EU's burden-sharing legislation establishes binding annual greenhouse gas emission targets for Member States for the periods 2013–2020 and 2021–2030. These targets concern emissions from most sectors not included in the EU Emissions Trading System (EU ETS), such as transport, buildings, agriculture and waste. The national targets of Member States will collectively deliver a reduction of around 10% in total EU emissions from the sectors covered by 2020; and of 30% by 2030, compared with 2005 levels. See Regulation (EU) 2018/842.

28 Consultant report: Finland's Climate Change Act, p13, p50.

29 The UK Carbon Plan 2011; ClientEarth, Mind the Gap report October 2016.

30 High Council for Climate, Annual Report 2019: Acting in Line with Ambitions June 2019 (France).

31 Report of the Swedish Climate Policy Council, March 2020 p8.

32 OECD Climate Change Expert Group, Aligning short-term climate action with long-term climate goals: Opportunities and options for enhancing alignment between NDCs and long-term strategies, Paper No.2020(2), May 2020 p37.

33 Institute for Government, Making Policy Stick: Tackling long-term challenges, 2020 p63.

34 The Energy and Resources Institute, Expert Perspectives: The relevance of long-term planning to achieving climate goals. See: https://www.wri.org/climate/expert-perspective/relevance-long-term-planning-achieving-climate-goals.

35 Finnish Government website, "Finland has an excellent opportunity to rebuild itself in line with the principles of sustainable development", last accessed 25 February 2021.

36 Taking Forward the UK Climate Change Bill: the Government Response to Pre-Legislative Scrutiny and Public Consultation, October 2007 p109.

37 Articles 114–116, General Law on Climate Change 2012 (Mexico) pp63-64.

38 Consultant report: Victoria's Climate Act, p30.

39 Consultant report: Victoria's Climate Act, pB2-B3

40 Consultant report: Victoria's Climate Act, pB3.

41 Consultant report: Victoria's Climate Act, p17.

42 The Climate Change Response (Zero Carbon) Amendment Act 2019.

43 The Climate Action and Low Carbon Development Act 2015.

44 S.5ZM(1)

45 Department of Environment, Food and Rural Affairs, Taking forward the UK Climate Change Bill: The Government Response to Pre-Legislative Scrutiny and Public Consultation, October 2007 p23.

46 Alina Averchenkova, Sam Fankhauser & Jared J. Finnegan (2021) The impact of strategic climate legislation: evidence from expert interviews on the UK Climate Change Act, Climate Policy, 21:2, 251-263, See: 10.1080/14693062.2020.1819190.

47 The Victorian Act provides both policy objectives (s22) and guiding principles (s23-28) to guide all decision-making under the Act including key decisions such as interim target setting (s14(1)).

48 Nollkaemper, A, 'Three conceptions of the Integration Principles in International Environmental Law' (2002) https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.990.7089&rep=rep1&type=pdf.

49 Official Journal of the EU, Consolidated versions of the TEU and TFEU 202/01, Volume 59 7 June 2016. Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development.

50 https://sdgs.un.org/goals.

51 The EU Governance Regulation 2018/1999 on the Governance of the Energy Union aims to integrate existing reporting, monitoring and planning obligations in the energy and climate space to improve better regulation principles [and] Set out a robust political process between Member States and the Commission to achieve the EU Energy Union objectives, in particular its 2030 targets for energy and climate change.

52 Article 2(18) of Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council.

53 https://nbsguidelines.info/.

54 https://www.naturebasedsolutionsinitiative.org/news/mangroves-in-india-provided-cyclone-protection/.

55 Voigt, C., & Ferreira, F. (2016). 'Dynamic Differentiation': The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement. Transnational Environmental Law, 5(2), 285-303. doi:10.1017/S2047102516000212.

56 There are many independent scientific organisations that assess the sufficiency of a State's national GHG reduction target, including Climate Action Tracker. https://climateactiontracker.org/

57 Finnish Climate Change Panel, Climate Change Panel's expert statement on 2019 annual climate change report (K 17/2019)

58 Consultant report: France's Energy Transition for Green Growth Act, p13.

59 Ibid.

60 Ibid.

61 Annex 2

62 https://www.instituteforgovernment.org.uk/publications/net-zero

63 The Victorian Act includes two such provisions: (i) a general duty to take account of climate change in government decision-making, with policy objectives and guiding principles to inform this consideration (section 20); and (ii) a specific requirement to take account of climate change in prescribed decisions made under different Victorian legislation (section 17, Schedule 1) – this includes a requirement to consider the potential contribution to the states GHG emissions of the decision or action (s17(2).

64 https://www.gov.uk/government/publications/public-sector-equality-duty

65 E.g. section 19 of the Human Rights Act (UK)

66 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69256/pb13359-cc-taking-action-100325.pdf

67 (Shane Tomlinson)

68 Consultant report: Finland's Climate Change Act, p29.

69 The Centre for Climate Change, Energy and International Law, What does a strong climate law look like? Recommendations for the reform of the Finnish climate law, Policy Brief No.1 March 2020.

70 Climate Change Act, Finland s.10(1).

71 Consultant report: Victoria's Climate Act p29.

72 Article 4(1), The Paris Agreement 2015; Article 4(2)(c) UN Framework Convention on Climate Change 1992.

73 https://www.iucn.org/theme/business-and-biodiversity/our-work/business-approaches-and-tools/independent-scientific-and-technical-advisory-panels.

74 Brunner S, Flachsland C, Marschinski R (2012) Credible commitment in carbon policy. Climate Policy 12(2): 255–271.

75 https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/09/GRI_The-design-of-an-expert-advisory-mechanism-under-the-European-Climate-Law_What-are-the-options-1.pdf.

76 Ideally this should include economic expertise to advise on emissions reduction pathways, which are crucial to inform decision making about how a nation should achieve the low carbon transition.

77 In Mexico, recent government cut-backs in public spending have significantly reduced the capacity of the General Law's independent expert body, the National Institute of Climate Change.

78 Consultant report: Mexico's General Law on Climate Change, p17.

79 Consultant report: Finland's Climate Change Act , p11.

80 Consultant report: Finland's Climate Change Act, p20.

81 Consultant report: France's Energy Transition for Green Growth Act, pB2.

82 Ibid.

83 Ibid.

84 Note that adaptation was not within scope of the research conducted by national experts.

85 https://www.legislation.govt.nz/act/public/2019/0061/latest/LMS183848.html

86 Section 5ZS.

87 Section 62.

88 See, inter alia, the list at: https://www.gov.uk/government/publications/climate-change-adaptation-reporting-third-round/list-of-organisations-reporting-under-adaptation-reporting-power-third-round#public-bodies

89 Consultant report: Mexico's General Law on Climate Change.

90 Gobierno de México, "Posicionamiento official para la participación de la delegación mexicana en la 25º Conferencia de las Partes de la Convención Marco de las Naciones Unidas sobre el Cambio Climático, a celebrarse del 2-13 diciembre de 2019, en Madrid, España". México, 2019. Available at https://www.gob.mx/cms/uploads/attachment/file/513641/PosicionamientoInicialMexicoVF.pdf

91 Climate Transparency Report, Mexico: Comparing G20 Climate Action and Responses to the COVID-19 Crisis, 2020. See: https://www.climate-transparency.org/wp-content/uploads/2020/11/Mexico-CT-2020-WEB2.pdf

92 s.8(1); s.9(1) Climate Change Act (609/2015) (Finland).

93 s.8(2) Climate Change Act (609/2015) (Finland).

94 Implementation of Finland's National Climate Change Adaptation Plan 2022: A Mid-Term Evaluation, October 2020, p75.

95 Ibid, p76.

96 See Planning and Building Act (2011:900) and the accompanying Planning and Building Ordinance (2011:338); Ordinance on Climate Adaptation Work on the Part of Government (2018:1428) (Sweden).

97 The Swedish Portal for Climate Change Adaptation, Public Sector Responsibility: http://www.klimatanpassning.se/en/roles-and-responsibilities/public-sector-responsibility/nationally-1.165753. Sweden released its national adaptation plan in March 2018.

98 s.10(1) Climate Change Act (609/2015) (Finland).

99 UN Human Rights Committee, International Covenant on Civil and Political Rights, Concluding observations on the seventh periodic report on Finland, CCPR/C/FIN/CO7, 3 May 2021. Finland's yet-to-be-released Arctic Strategy is reported to introduce stronger protections for Sami people, including their crucial right to free, prior and informed consent.

100 CARE international has produced this checklist of Good Adaptation Practice, https://careclimatechange.org/wp-content/uploads/2019/06/Adaptation-Good-Practice-Checklist.pdf

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