



GLOBE
INTERNATIONAL



Grantham Research Institute on
Climate Change and
the Environment

The GLOBE Climate Legislation Study

FOURTH EDITION

A Review of Climate Change Legislation in 66 Countries

INTRODUCTION AND SUMMARY



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Terms and abbreviations

ADAPTATION - Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects

ANNEX 1 COUNTRIES – Group of OECD countries and Economies in transition listed in Annex I to the UN Framework Convention on Climate Change

NON-ANNEX 1 COUNTRIES - Countries that have ratified or acceded to the United Nations Framework Convention on Climate Change that are not included in Annex I of the Convention, mostly developing countries

ANNEX 2 COUNTRIES – Countries of Annex I that have special obligation to provide financial resources and facilitate technology transfer to developing countries. This group includes 24 OECD countries and the European Union

CDM- Clean Development Mechanism of the Kyoto Protocol

COP – Conference of the parties to the UN Framework Convention on Climate Change

ETS – Emissions Trading System

EU ETS – European Union Emissions Trading Scheme

GEF - Global Environment Facility

LULUCF - Land Use, Land-Use Change, and Forestry

MOP – Meeting of the Parties to the Kyoto Protocol

MRV - Measurement, Reporting and Verification

PES - Payments for Ecosystem Services

MITIGATION - Initiatives to reduce emissions of greenhouse gases

NAMAs - Nationally Appropriate Mitigation Actions

REDD+ - Mitigation measures related to “Reducing Emissions from Deforestation and Forest Degradation (REDD)” that also includes conservation, sustainable management of forests and enhancement of forest carbon stocks, thus REDD+

UNDP - United Nations Development Programme

UNEP - United Nations Environment Programme

UNFCCC - United Nations Framework Convention on Climate Change

UN-REDD - United Nations collaborative initiative on Reducing Emissions from Deforestation and forest Degradation (REDD) in developing countries

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Foreword by the President of GLOBE International



Welcome to the 4th edition of the GLOBE Climate Legislation Study, a collaboration between Globe International and the London School of Economics. Since the first edition was published in 2010, covering 16 countries, the Study has established itself as the world's most authoritative and comprehensive audit of climate change-related legislation.

At the launch of the 3rd edition in London in January 2013 Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC), challenged us to “double the coverage” of countries reviewed. I am delighted to say that we have met this challenge. The 4th edition has been expanded from 33 to 66 countries (including the European Union as a single entity), which are together responsible for approximately 88% of global emissions of greenhouse gases.

With its broader coverage and deeper analysis, the 4th edition shows more clearly than ever before the extent and breadth of the legislative activity on climate change. It's happening across the globe: in Africa, the Americas, Asia and Europe and in both large and small economies from China to Micronesia.

The study shows that 61 out of 66 countries have passed laws to promote domestic, clean sources of energy and 54 have legislated to increase energy efficiency. The former reduces reliance on imported fossil fuels, thereby mitigating exposure to volatile fossil fuel prices and increasing energy security. The latter reduces costs and increases competitiveness. All of these actions, whilst being driven by national interest, have a positive benefit for the world's climate. And it's no surprise, either, that 52 of the 66 countries covered by the study have developed legislation or policies to improve their resilience to the impacts of climate change, many of which we are already experiencing.

As illustrated by the comparative graphics, legislation is progressing at a rapid rate, reflecting the fact that addressing climate change is being seen as firmly in the national interest. National achievements are often also supported and, in some cases surpassed, by the legislation produced by States and Provinces. Canada and the US are cases in point. At the same time we must recognise that progress can sometimes be undone. The new attitude of Australia in particular could lead to a reversal of the important legislative steps taken to enable it to play its part in the global battle against climate change.

We should be clear that the legislative response thus far is not yet sufficient to limit emissions at a level that would cause only a 2 degree Celsius rise in global average temperature, the agreed goal of the international community. However, it is also clear that the cumulative effect of the advances in national legislation outlined by the study is the creation of a strong foundation on which a post-2020 global deal can be built. Domestic legislation is establishing the institutional frameworks and policies to measure, report, verify, and manage emissions. The ambition of these policies and laws can be increased as countries experience the co-benefits of tackling climate change and discover that the costs are manageable. This legislation is a fundamental pre-requisite to an effective international deal.

As the formal UN negotiations move towards Paris in 2015, the scheduled conclusion of negotiations on a post-2020 framework, it is increasingly clear that an effective and ambitious deal is dependent on the national legislation passed in advance.

That is why the GLOBE Climate Legislation Initiative (GCLI) is so important. Launched in January 2013, the GCLI is bringing together legislators in over 60 countries to share experience, discuss common challenges and develop legislation. Building on the success of GLOBE Mexico in developing and securing the political support for the General Law on Climate Change in 2012, GLOBE members in 2013 have been instrumental in the passage of climate change legislation in Micronesia, an influential member of the Alliance of Small Island States, a comprehensive climate change law has been tabled by GLOBE Costa Rica, which is expected to pass in early 2014, and GLOBE members are developing legislation in China, Colombia, Nigeria and Peru, amongst others.

Of course, the role of legislators does not end when legislation is passed. Equally if not more important than legislators' role in developing and passing legislation is oversight of governments, not least in approving national budgets. It is one thing to pass legislation and another to implement it. That is why the GCLI includes a major strand of work on oversight, identifying and promoting good practice and equipping legislators to be as effective as possible in holding their governments to account. GLOBE International will be working continuously with its network of legislators across the world to advance the legislative response to climate change. Success in Paris in 2015 depends on it.

A handwritten signature in blue ink, appearing to read 'Deben', is positioned above the name of the signatory.

**The Rt Hon. John Gummer, Lord Deben
President, The Global Legislators' Organisation (GLOBE International)**

Foreword by the Executive Secretary of the UN Framework Convention on Climate Change (UNFCCC)



Climate change is the greatest challenge of our time. Evidence clearly shows that human actions have a direct and dramatic effect on the climate system. Recent reports from the Intergovernmental Panel on Climate Change, UN Environment Programme, International Energy Agency and World Economic Forum constitute a clarion call to curb greenhouse gas emissions and adapt to climate change.

These reports also point to one emerging truth. We can act to avoid the worst effects of climate change, but time is running out. Capturing our opportunity to stabilise the climate system, achieve the internationally agreed goal of limiting warming to less than 2 degrees Celsius and safeguard development for future generations requires immediate action by leaders in every country and every sector. Given the complexity of climate science and vastly different geopolitics around the world, no one suite of climate policies is right for everyone. Therefore, instruments that promote sharing experiences, discussing challenges and developing appropriate legislation are exceedingly valuable. GLOBE International provides just such an instrument.

In 2014, Parties to the UNFCCC are conducting the domestic conversations necessary to determine their contributions to the new, universal climate agreement slated for 2015. The GLOBE Climate Legislation Study gives policymakers clear options by showcasing national climate policies, regional progress and the effects of legislation. Last year, I challenged GLOBE to double the number of countries in the study and they rose to the challenge. This year, I challenge legislators to take advantage of the information in this study, create strong national policy that moves us to a low-carbon world and bring strong contributions to the international process. In doing so, legislators can rise to meet our greatest challenge, climate change.

A handwritten signature in black ink, which appears to be 'C. Figueres'.

Christiana Figueres, Executive Secretary, United Nations Framework Convention on Climate Change

1 Introduction

The GLOBE Climate Legislation Study seeks to provide an authoritative and comprehensive annual audit of climate change-related laws in the 66 country chapters.

The origin of the study was the 2009 agreement on a set of Legislative Principles on Climate Change, co-authored by Chinese Congressman Wang Guangtao and then US Congressman Ed Markey and endorsed by 120 legislators from 16 countries. These principles were designed to guide legislators as they advanced climate change legislation, on the understanding that moving together in a nationally-appropriate and consistent fashion would help to maximise the benefits of moving towards a low carbon economy and minimise the competitive distortions.

To facilitate the implementation of the Legislative Principles on Climate Change, it was important to develop an understanding of existing climate change-related legislation to learn lessons and benefit from the experience of others in drafting, building support for, passing and implementing these laws. In 2010 GLOBE and the Grantham Research Institute at the London School of Economics partnered to produce the 1st edition of The GLOBE Climate Legislation Study (Townshend et al 2010), examining climate-related legislation in 16 of the major economies. The 2nd edition of The GLOBE Climate Legislation Study, published in December 2011, was expanded to include Australia, and covered progress in 2011. Subsequently, in response to a challenge “to double the coverage” by Christiana Figueres, Executive Secretary of the UNFCCC, the coverage was increased to 33 countries in the 3rd edition, launched in January 2013, and further expanded to 66 countries in this 4th edition. This latest edition includes 18 of the top 20 emitters of greenhouse gases (GHGs) and 39 of the top 50, representing approximately 88% of (anthropogenic) global emissions.

Recognising the growing importance of adapting to climate change, GLOBE co-hosted a conference in July 2013 entitled “Adapting to Climate Change: Policy, Practice and Legislation”, bringing together legislators, policy makers and experts from more than 10 countries. The output was a set of “Adaptation Principles” designed to inform the development of adaptation-related legislation. These Adaptation Principles have already informed legislation in Micronesia and the adaptation elements of Costa Rica’s draft law while the Chinese government received the principles as an input to the drafting of their national climate change law.

The aims of the GLOBE Climate Legislation Studies are threefold. First, to support legislators advancing climate-related legislation by providing a detailed summary of existing legislation to identify best practice and help peer-to-peer learning. Second, to document the broad progress on climate change legislation at the domestic level in both industrialised and developing countries to provide

positive momentum to the international negotiations. And third, to highlight the fundamental role of legislators in any effective strategy to tackle climate change.

Parliaments considering climate-related legislation can benefit from the experience of others. For example, South Korea's emissions trading legislation and China's sub-national schemes draw on the experience, and lessons learned, from the EU's emissions trading system. Mexico's General Law on Climate Change draws on the experience of the UK's Climate Change Act, while Costa Rica's draft law builds on Mexico's legislation. Brazilian, Indonesian, Mexican and Congolese legislators have been sharing knowledge of forest-related legislation via the GLOBE Legislators' Forest Initiative to ensure maximum consistency and share experience. And in January 2012 the team drafting China's climate change law made a study visit to London and Brussels, hosted by GLOBE International, to learn from the experience of the UK and the EU to inform the development of their national law. GLOBE's engagement with China is ongoing as it develops its law, expected to pass in 2015.

The 4th edition is a major output of The GLOBE Climate Legislation Initiative (GCLI), a policy process to support the advance of climate change legislation in more than 40 countries. The GCLI is running alongside the international negotiations under the Durban Platform with the aim of helping to build the foundations and political conditions that enable an international agreement to be reached.

Legislative action at the national level is fundamental to achieving the ultimate goal of the UN Framework Convention on Climate Change – the stabilisation of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

2 Progress in 2013

This section summarises the major changes to the legislative picture in 2013, or more specifically between the cut-off date of the third study (October 2012) and the end of 2013. It includes laws, regulations, policies or decrees as per the definition of legislation used in this study (see Section 4). In addition we review major legislative or regulatory proposals that have a reasonable chance of entering into law or being approved by governments.

2.1 Overview

2013 was a period of transition in global climate diplomacy. The international negotiations are slowly gearing up towards the crucial 2015 Conference of the Parties/Meeting of the Parties in Paris. Among developed countries, US President Barack Obama raised the bar when he promised to “respond to the threat of climate change” in his inaugural State of the Union address after his re-election, and subsequently published a Climate Action Plan. With the worst of the economic crisis over, the European Union began to focus again on climate policy and its climate objectives beyond 2020. However, compared to a few years ago the political environment for carbon legislation in industrialised countries has become more difficult, nowhere more so than in Australia, where a new administration has vowed to repeal the key aspects of Australia’s flagship legislation – the Clean Energy Act. Japan also announced a downward revision of its climate targets to accommodate a much-reduced reliance on low-carbon nuclear energy after the tsunami that devastated the nuclear plant at Fukushima.

These developments accentuate a longer-term trend that has seen the momentum in climate change legislation shifting from industrialised countries to developing countries and emerging markets. This has gone hand in hand with a rise in legislation covering adaptation. The stock of climate laws in developing countries is still lower than in industrialised nations, but many have started to close the gap by passing sophisticated new legislation.

We identify significant positive changes in two regions in particular. In Sub-Saharan Africa national strategies and plans are being formed in almost all the study countries, as the basis for future legislation. In Latin America, plans are beginning to transform into concrete legislation, notably Bolivia’s Framework Law on Mother Earth and Integral Development to Live Well and Costa Rica’s anticipated Framework Law on Climate Change, building on the substantial progress in Mexico we reported in the 3rd edition.

Overall, we report substantive legislative progress in 8 of the 66 countries, which passed flagship legislation, and some positive advances in a further 19 countries. Detailed chapters on each country's climate change-related legislation can be found in Section 4 – Climate Legislation Country by Country.

2.2 Summary of Progress by Region

2.2.1 Summary of Progress in Africa and the Middle East

Sub Saharan Africa saw major developments in 2013, with progress made in almost all of the study countries, notably the approval of national plans and strategies on climate change. In **Ethiopia**, the Environmental Protection Agency was upgraded to the status of a ministry with the formation of the Ministry of Environment and Forest, and is better equipped to take the technical responsibility of building a climate-resilient green economy. **Gabon** passed Resolution No. 20/2013 on Sustainable Development in the Republic of Gabon.

Kenya adopted the 2013-2017 Climate Change Action Plan, with the objective of providing a platform for the implementation of the 2010 National Climate Change Response Strategy (NCCRS). In November 2012, **Mozambique** adopted the 2013-2025 National Strategy for Climate Change, with the aim of reducing vulnerability to climate change and improving living conditions. The strategy proposes climate change adaptation and disaster risk reduction measures and also addresses mitigation by targeting low carbon development.

Tanzania passed its National Strategy on REDD+ in March 2013. In late 2012, **Nigeria's** Legislative Council approved the adoption of a National Climate Change Policy and Response Strategy (NCCP-RS). NCCP-RS aims to provide Nigeria with a framework for responding to climate change-related challenges such as increased flooding and sea level rise. **Rwanda** approved its Second Economic Development and Poverty Reduction Strategy (2013-2018), which highlights pursuing a green economy approach to development, and integrating climate change and the environment as a 'cross-cutting issue'.

Limited progress has been observed in the Middle East and North Africa. Exceptions include **Jordan**, which passed its National Climate Change Policy in May. **Saudi Arabia** is preparing for climate legislation, having issued a white paper which contains a roadmap and description of policy tools for launching a large renewable energy programme. The **UAE** launched a mandatory Energy Efficiency Standardisation and Labelling Scheme.

2.2.2 Summary of Progress in the Americas and Caribbean

In the **USA**, dedicated climate change legislation remains politically challenging. However, the President announced a Climate Action Plan, including a series of

executive actions designed to accomplish the United States' GHG emission reduction targets and prepare for the impacts of climate change. The Plan sets a timetable for the Environmental Protection Agency to complete work on regulations governing existing and future fossil fuel power plants. Additionally, an executive order was issued by the President, entitled Preparing the United States for the Impacts of Climate Change, which promotes information-sharing and climate risk-informed decision-making at all levels of government. In late 2013, the Senate began floor consideration of bipartisan energy efficiency legislation, the Energy Savings and Industrial Competitiveness Act, which will see further debate in 2014.

Mexico, following up on its 2012 General Law on Climate Change, announced the creation of the Climate Change National System and the Inter-secretarial Committee on Climate Change. It also adopted the National Climate Change Strategy. This strategy sets out the main focal areas regarding cross-sectoral climate policy, adaptation to climate change and reduction of GHG emissions, and reinforces Mexico's GHG mitigation targets. **El Salvador** adopted the National Climate Change Strategy, aiming to enhance the financial and institutional resources to reduce economic and social impact of climate change. The Strategy focuses on three core areas: adaptation, mitigation and international co-operation.

In **Costa Rica**, a Framework Law on Climate Change was formally introduced to Congress in September 2013, and is expected to pass in 2014. The proposal includes the creation of the Climate Change National Committee and the Climate Change National Council, together responsible for the implementation of the National Adaptation and Mitigation Plans. The draft bill also calls for the adoption of a National Climate Change Plan and the further development of climate policies oriented towards research, crisis management, GHG reporting and monitoring as well as mitigation and adaptation. Further developments include a Ministerial Decree adopted in September 2013, which creates a voluntary carbon market.

In **Ecuador**, Decree 1815 established the Intersectoral National Strategy for Climate Change, part of a package of measures to encourage sustainable development in Ecuador. The National Plan for Good Living promotes adaptation to climate change, which sits alongside the National Environmental Policy. Other decrees passed in 2013 include the Ministerial Accord 33 on REDD+, the Ministerial Accord 095 (adoption of The National Climate Change Strategy), and Ministerial Accord 089, which establishes the National Authority for Implementation of the NAMA. In October 2012 **Bolivia** passed The Mother Earth Law and Integral Development to Live Well, Law No 300 of 2012. The law is a sweeping overhaul of the national management of natural resources, climate, and ecosystem.

2.2.3 Summary of Progress in Europe

The **EU** reform of the Common Agricultural Policy, approved in 2013, has led to the integration of climate change mitigation and adaptation measures by introducing two rural development policy priorities for restoring, preserving and enhancing ecosystems, for resource efficiency and to address climate change. In June, the Council of the European Union adopted an EU strategy on adaptation to climate change. Finally, the Directive on Energy Efficiency has been revised to include the legal obligation to establish energy efficiency schemes or policy measures in all Member States.

Within the European Union, **Sweden** passed an act creating tax incentives for biofuels, while the **United Kingdom** passed the Energy Act, which implements a white paper on electricity market reform, and supports low-carbon electricity generation through contracts for differences.

In July 2013 **France** concluded its National Debate on Energy Transition, resulting in a series of policy recommendations. One recommendation reiterates the President's commitment to reduce the proportion of nuclear energy in the overall energy mix from the current 75% to 50% in 2025. Another recommendation demands a reduction in total energy consumption of 50% by 2050. The recommendations from the Energy Transition Debate have been submitted to the government and draft legislation is expected in 2014.

The **Czech Republic** passed an Act on Promoted Energy Sources, imposing a levy on renewables development while still meeting EU targets, with increased support for nuclear energy. **Poland** adopted the Polish National Strategy for Adaptation to climate Change (SPA 2020), the first strategic document directly focused on adaptation to climate change. Poland also adopted a Strategy for Economic Innovation and Effectiveness, which aims to make the country highly innovative by 2020. It is also in the process of adopting a Strategy for Energy Security and Environment, which sets targets to increase energy efficiency and the share of renewables.

Outside the EU, **Switzerland** revised its CO₂ Act. The revision sets an emission reduction target of 20% below 1990 levels by 2020, and sets interim goals and various measures for buildings, transportation and industry.

The State Environmental Agency of the **Ukraine** is currently working on a new draft law on a national ETS. In September 2013, the **Russian** President signed a decree adopting a target for GHG emissions, stating that by 2020 they must not exceed 75% of the total emissions of 1990.

2.2.4 Summary of Progress in Asia Pacific

China continues to work on its national climate change law, a draft of which is expected to be completed and consulted on in 2014. The National Development

and Reform Commission has also developed and published a National Plan for Addressing Climate Change (2013-2020) that outlines the framework for tackling climate change in China, including targets, tasks and safeguarding measures. Progress has also continued with sub-national legislation and pilot carbon trading systems in key Provinces and Municipalities.

In January 2013 **Mongolia** signed a bilateral document on a Joint Crediting Mechanism (JMC) agreement with the government of Japan to help offset its GHG emissions. The Forest Law amended in July 2013 now foresees the use of forests for GHG sequestration. The UN-REDD Programme is working with the government to integrate REDD+ into national strategies and legislation.

Following a change of government, **Japan** announced in late 2013 that instead of aiming for a 25% reduction in greenhouse gas emissions by 2020, it would increase its emissions by 3%, following the shutdown of many nuclear reactors after the tsunami that led to the shutdown of the Fukushima nuclear power plant. It is yet to be seen how this might be reflected in Japan's legislation.

Although **Kazakhstan** did not pass any new legislation in the past year, it began trading carbon in January 2013 for a pilot period of one year. Should the trading system be deemed successful, a second trading period will be enacted for the period to 2020.

The Federated States of Micronesia made significant progress on tackling climate change this year, passing two major pieces of legislation in late 2013. The first, the Nationwide Integrated Disaster Risk Management and Climate Change Policy, sets out in its guiding principles a 'multi-hazard' risk management approach that integrates disaster risk management, climate change adaptation and GHG emissions reduction. The second, The Climate Change Act, instructs government offices and departments to prepare plans and policies consistent with the Climate Change Policy and includes an obligation on the President to report to Congress on the progress of implementation.

Indonesia has been active on REDD+, with a decree establishing a Managing Agency for REDD+, which amongst other things will develop a national REDD+ strategy. A Presidential Instruction extends the forest moratorium, which is a core aspect of REDD+ implementation. In **Thailand**, the Office of Natural Resources and Environmental Policy Planning is working on the National Master Plan on Climate Change 2013-2050, outlining strategies and policy recommendations for climate change adaptation, mitigation, and capacity building for climate change.

Australia's climate change policy took a turn following the September 2013 general election. The new government announced it would repeal the carbon tax effective from 1 July 2014, and it introduced carbon tax repeal bills into parliament as its first item of legislative business. Full repeal of the Clean Energy

legislative package would also see the abolition of the Climate Change Authority and the Clean Energy Finance Corporation. The repeal of these laws, if supported in parliament, is expected to take place in 2014. In place of the Clean Energy Act, the new government plans to introduce a Direct Action Plan in July 2014, under which the government has committed to reduce GHG emissions by 5% from 2000 levels by 2020. In August 2013, the government of **New Zealand** announced an unconditional emissions reduction target of 5% to be achieved by 2020.






2.3 Flagship Legislation and Assessment of Progress in 2013

For 62 of the 66 country studies we have been able to identify a flagship law – a piece of legislation or regulation with equivalent status that serves as a comprehensive, unifying basis for climate change policy. Changes in flagship legislation are therefore particularly significant. They constitute a step change in a country’s approach to climate change.






In 2013 eight countries passed new flagship legislation. They are Bolivia, El Salvador, Guatemala, Kenya, Micronesia, Mozambique, Nigeria and Switzerland. In addition, we have changed the flagship law of El Salvador, from The National Environment Policy (2012) to The National Climate Change Strategy (2013), which is specifically focused on climate change.





Table 1 below provides a summary of “flagship legislation” in all 66 countries. The final column displays an assessment of legislative progress in 2013. The assessment takes into account laws passed since the cut-off date for the third edition of the study (October 2012). It also – through the use of coloured exclamation marks – includes an indication of major legislative proposals that, although not yet passed, have been formally introduced to the legislature for consideration.





Table 1: Flagship Legislation and Legislative Progress in 2013






Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Argentina	<i>Presidential Decree 140/2007 declaring "rational and efficient" energy use a national priority</i>	Includes far-reaching and ambitious goals to reduce energy consumption and promote the use of renewable energy in the public sector (including public transport and lighting), private industry and private residencies.	2007	
Australia	<i>Clean Energy Act 2011</i>	The purpose of the Clean Energy Act is to put Australia on a path to reduce its GHG emissions by 80% by 2050. The central element of the bill is pricing carbon, initially via a carbon tax and, subsequently, via an emissions trading scheme.	2011	 New government has published draft legislation to repeal aspects of the Clean Energy Act
Bangladesh	<i>The Climate Change Trust Fund Act</i>	Focused on funding adaptation-related activities over the period 2009–2011.	2009	
Bolivia	<i>Framework Law on Mother Earth Law and Integral Development to Live Well, Law No 300 of 2012</i>	The vision of the Law is to "establish the vision and fundamentals of integral development in harmony and balance with Mother Earth to Live Well, guaranteeing the continued capacity of Mother Earth to regenerate natural systems, recuperating and strengthening local and ancestral practices, within the framework of rights, obligations and responsibilities".	2012	 The Mother Earth Law and Integral Development to Live Well
Brazil	<i>National Policy on Climate Change (NPCC)</i>	The NPCC is based on Brazil's international commitment within the UNFCCC and incorporates all previous related government instruments (i.e. the National Plan on Climate Change, the National Fund on Climate Change and others).	2009	 Law No. 12805 Establishing the National Policy on Farming-Livestock-Forest Integration






¹ Taking into account laws passed between the close of the third edition of the study, in October 2012 and the end of 2013.






Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Canada	No flagship legislation			 Heavy-duty Vehicle and Engine Greenhouse Gas Emission Regulations P.C. 2013-160
Chile	<i>National Climate Change Action Plan 2008–2012</i>	Creates an Inter-ministerial Committee on Climate Change and two dialogue platforms, one for public-private partnerships and one for civil society. The Plan establishes a set of public policy guidelines for five years, after which it will be followed by long-term national and sectoral plans for adaptation and mitigation.	2008	
China	<i>12th Five-Year Plan</i>	The 12th Five-Year Plan includes targets to decrease the carbon intensity of GDP by 17% by 2015; to decrease the energy intensity of GDP by 16%; to increase the share of non-fossil fuel primary energy consumption to 11.4%; and to increase forest coverage by 21.6%.	2011	 National Adaptation Plan published
Colombia	<i>Law No. 1450 of 2011</i>	National Development Plan 2010–2014 addresses sustainability and risk reduction and foresees the implementation of a National Climate Change Policy.	2011	
Costa Rica	<i>2008 National Climate Change Strategy</i>	The primary objective of the NCCS is to convert the country into a “climate neutral” economy by 2021. Other objectives are to reduce the socio-economic and environmental impacts of climate change, and promote sustainable development and environmental protection through actions of mitigation and adaptation. The NCCS is divided into a national and an international agenda, detailing specific areas and actions to be taken within each domain.	2008	 2013 Biofuels Law; Ministerial Decree DAJ-62-2012-MINAE creating the Voluntary Carbon Market; New Framework Law on Climate Change in debate and expected to pass in 2014





Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Czech Republic	<i>National Programme to Abate Climate Change Impacts in the Czech Republic</i>	The National Programme to Abate Climate Change Impacts in the Czech Republic is the key document through which the ministries co-ordinate cross-cutting and sectoral policies at the national level that are necessary to comply with the European Climate Change Programme and other EU climate legislation. It thus forms the basis for further, sector-specific climate legislation.	2004	
Denmark	<i>Energy Agreement 2012-2020</i>	Comprehensive governmental agreement passed by the parliament (Folketing) that aims to reduce emissions via energy efficiency and increase the share of renewable energies as part of a green socio-economic transition. The overall objective is to make Denmark's energy supply 100% renewable by 2050.	2012	
Dominican Republic	<i>Law 1-12: National Development Strategy</i>	The strategy aims to integrate climate change learning in key sectors to promote human and institutional capacity to cope with climate change. The Law establishes a binding commitment to achieve a reduction in GHG emissions of 25% in the DR compared to 2010 levels.	2012	
Democratic Republic of Congo	<i>Law No. 11/009 on the Protection of the Environment</i>	The Law covers many areas from the management of air and water through to the introduction of genetically modified organisms. It sets out the fundamental principles concerning environmental protection. The law establishes the institutional framework and outlines the procedural and financial mechanisms of environmental protection for DRC. The Law sets out the rules for natural resources management and conservation.	2011	






Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Ecuador	<i>Executive Decree 1815 No. 636, catalysing the National Strategy on Climate Change</i>	The Decree defines adaptation and mitigation as government policy, under the oversight of the Ministry of the Environment, Secretary of Climate Change. The decree led the formulation of the National Strategy on Climate Change.	2009	 Ministerial Accord 095 Official Register No9 passed, adopting the National Climate Change Strategy; Ministerial Accord 33 on REDD+ passed
El Salvador	<i>The National Climate Change Strategy</i>	The Strategy aims to enhance financial and institutional resources to reduce the economic and social impact of climate change by addressing three core issues: tackling losses generated by climate change, adaptation measures and development of a mitigation programme associated with the national agenda for social and economic development, including the development of a low-carbon economy.	2013	 The National Climate Change Strategy
Ethiopia	<i>Climate-Resilient Green Economy Initiative</i>	The CRGE's vision is achieving middle-income status by 2025 in a climate-resilient green economy, outlining four pillars: Adoption of agricultural and land use efficiency measures; increased GHG sequestration in forestry; deployment of renewable and clean power generation; and use of advanced technologies in industry, transportation, and buildings.	2011	 Proclamation creating the Ministry of Environment and Forestry
European Union	<i>Climate and Energy Package</i>	The core of the package comprises four pieces of complementary legislation: Revision and strengthening of the EU Emissions Trading Scheme (ETS) Reducing GHG emissions fairly, taking into account the relative wealth of EU Member States A framework for the production and promotion of renewable energy A legal framework for the environmentally safe geological storage of CO ₂	2008	 An EU strategy on adaptation to climate change. Council of the European Union conclusions 11151/13; Decision No 529/2013/EU of the European Parliament on accounting rules on GHG emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities







Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
France	<i>Grenelle I and II</i>	Grenelle laws include comprehensive policies on emissions targets, renewable energy, energy efficiency and research and development.	2009 and 2010	
Gabon	<i>National Climate Change Action Plan- 'Plan Climat'</i>	The plan is designed to enable Gabon to be able to control its GHG emissions and reduce climate risks across the country; and to enable the reconciliation of environmental protection and sustainable economic development, in accordance with the Gabon Emergent strategy.	2012	 Resolution No. 20/2013 on Sustainable Development in the Republic of Gabon
Germany	<i>Integrated Climate and Energy Programme</i>	This programme aims to cut GHG emissions by 40% from 1990 levels by 2020. The package focuses strongly on the building sector. The government approved a new climate package of measures in June 2008 that focuses on the transportation and construction sectors.	2007 (updated 2008)	 Implementation of the Government Programme for Electric Mobility from 23 November 2012, No. 634/12
Ghana	<i>Renewable Energy Act, 2011 Act 832</i>	The Act's objective is to provide for the development, management and use of renewable energy sources for the production of heat and power in an efficient and environmentally sustainable manner.	2011	
Guatemala	<i>Framework law for the regulation of vulnerability reduction, mandatory adaptation to the effects of climate change and mitigation of GHGs</i>	The main aim of the law is to provide an immediate and co-ordinated response to climate change. The bill stresses the need to develop a national adaptation and mitigation plan.	2013	 Framework law to regulate vulnerability reduction and obligatory adaptation to the effects of climate change and the mitigation of GHG effects







Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Guyana	<i>Low Carbon Development Strategy</i>	The Low Carbon Development strategy seeks to transform Guyana's economy from one on a high energy intensity 'business as usual' path towards one focused on low carbon growth and reduced exploitation of forests with concomitant benefits for climate change mitigation.	2009	
India	<i>National Action Plan on Climate Change (NAPCC)</i>	India's NAPCC outlines existing and future policies and programmes directed at climate change mitigation and adaptation. The Plan sets out eight "national missions" running up to 2017.	2008	
Indonesia	<i>Presidential Decree (PerPres) No. 61 2011, National Action Plan to reduce GHG emissions (RAN-GRK)</i>	RAN-GRK is a national guideline for emission reduction covering 70 programmes, to be conducted together by the Central Government, Local Governments, private sectors/business actors and civil society. It sets out the different sectors in which Indonesia will make emissions reductions, namely Forestry and Peat land, Agriculture, Energy and Transportation, Industry and Waste Management.	2011	 Decree 62 of 2013 to establish a Managing Agency for REDD+; Presidential Instruction Inpres 6/2013 extending the forest moratorium, which is a core aspect of REDD+ implementation
Israel	<i>The National Greenhouse Gas Emissions Mitigation Plan</i>	The plan's main strategies relate to energy efficiency, green building, and transportation. A key element was a government-sponsored programme of subsidies administered jointly by the Ministry of Environmental Protection and the Investment Centre in the Ministry of Economy, aimed at encouraging investments in energy efficiency and GHG reduction projects and at advancing new Israeli technologies.	2010	
Italy	<i>Climate Change Action Plan (CCAP)</i>	Italy's CCAP is a comprehensive action plan to help Italy comply with GHG reduction targets under the Kyoto Protocol.	2007	





Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Jamaica	<i>Vision 2030 Jamaica</i>	Seeks to achieve developed country status for Jamaica by 2030. The Vision has four goals, 15 National Outcomes and 82 National Strategies, with sector strategies and actions. National outcome 14 under this goal is "Hazard Risk Reduction and adaptation to climate change".	2007	
Japan	<i>Law Concerning the Promotion of Measures to Cope with Global Warming</i>	This Law establishes the Council of Ministers for Global Environmental Conservation; develops the Kyoto Achievement Plan; and stipulates the establishment and implementation of countermeasures by local governments.	1998 (amended 2005)	
Jordan	<i>Renewable Energy & Energy Efficiency Law, No. 3 of 2010</i>	The renewable energy and energy efficiency law provides the legislative framework to encourage exploitation of enable energy sources, further supply-side energy efficiency and streamline private sector investment through incentives.	2010	 National Climate Change Policy 2013-2020
Kazakhstan	<i>The Concept of Transition of the Republic of Kazakhstan to Sustainable Development for the Period 2007-2024, Presidential Decree No 753 of 2006</i>	The Concept for Sustainable Development (Concept) is a comprehensive guide to planning national development over a period of nearly two decades. The Concept was developed within the framework of the World Summit on Sustainable Development (Johannesburg, 2002) by the Ministry of Environment with support from UNDP, UNEP-EU, as well as scientists and experts.	2006	
Kenya	<i>The 2013-2017 Climate Change Action Plan</i>	Provides a platform for the implementation of the 2010 National Climate Change Response Strategy, defining clear measures on adaptation and mitigation.	2013	 Climate Change Action Plan






Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Malaysia	<i>Renewable Energy Act 2011</i>	The Renewable Energy Act 2011 establishes a system of feed-in tariffs for renewables. The system sets fixed tariff rates for electricity generated from solar, biomass, biogas, and hydro energy. Depending on the type of resource used, these tariffs are guaranteed for a period of 16 to 21 years.	2011	
Maldives	<i>National Adaptation Programme of Action of 2006</i>	The Plan is divided into five policy components: (i) climate change-related hazards; (ii) adaption of systems vulnerable to climate change (ecosystems, biodiversity, non-renewable resources, land use, human social relations); (iii) sustainable development outcomes of adaption strategies; (iv) processes to compensate for lost, damaged or negatively altered systems (as listed above) as a result of climate change; and (v) barriers to implementation.	2006	
Mexico	<i>General Law on Climate Change</i>	Establishes the basis for the creation of institutions, legal frameworks and financing to move towards a low carbon economy. Puts into law the country's emissions reduction target of 30% below Business As Usual by 2020, subject to the availability of financial resources and technology transfer.	2012	 National Climate Change Strategy
Micronesia	<i>Federated States of Micronesia Climate Change Act</i>	The Act implements the recently adopted Nationwide Integrated Disaster Risk Management and Climate Change Policy. It instructs government offices and departments to prepare plans and policies consistent with the Climate Change Policy and includes an obligation on the President to report to Congress on the progress of implementation of the Climate Change Act.	2013	 Climate Change Policy and Climate Change Act




Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Mongolia	<i>National Action Programme on Climate Change (NAPCC)</i>	The NAPCC aims to create a sustainable environment for development by promoting capacities and measures on adaptation to climate change, halting imbalances in the country's ecosystems and protecting them. The implementation strategies in this NAPCC include institutional, legislative, financial, human, education and public awareness, and research programmes, as well as co-ordination with other national and sectoral development plans.	2011	
Morocco	<i>National Plan Against Global Warming</i>	The National Plan presents the mitigation and adaptation actions taken by the government to combat climate change. It consolidates within the Department for the Environment a number of initiatives related to climate change established by other ministries.	2009	
Mozambique	2013-2025 Climate Change Strategy	The objective is to reduce vulnerability to climate change and improve the living conditions of the Mozambican people. It proposes climate change adaptation and disaster risk reduction measures and also focuses on mitigation by targeting low carbon development.	2012	 Adoption of the 2013-2025 National Strategy for Climate Change
Nepal	<i>Climate Change Policy, 2011</i>	Sets out a vision to address the adverse impacts of climate change and take opportunities to improve livelihoods and encourage climate-friendly change.	2011	
Netherlands	<i>New Energy for Climate Policy: The Clean and Efficient Programme</i>	The Programme has three main objectives: setting and implementing firm targets for reducing GHG emissions, increasing the share of renewable energies and improving energy efficiency.	2007	

Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
New Zealand	<i>Climate Change Response Act 2002</i>	The Act established an institutional and legal framework for New Zealand to ratify and meet its obligations and the Kyoto Protocol and the United Nations Framework Convention on Climate Change.	2002	
Nigeria	<i>National Policy on Climate Change</i>	The objectives of the Plan are to foster low-carbon, high growth economic development path and build a climate-resilient society through the attainment of set targets.	2013	 National Policy on climate change
Norway	<i>Climate Settlement</i>	The Settlement reinforces the targets set out in the 2008 agreement on climate policy on transportation; construction; agriculture and carbon uptake by forests; and mainland industry and petroleum activities.	2012	
Pakistan	<i>National Climate Change Policy</i>	Identifies vulnerabilities to climate change, and spells out appropriate response measures, including disaster risk management.	2012	
Peru	<i>National Strategy on Climate Change</i>	The National Strategy for Climate Change has the general objective of reducing the adverse impacts of climate change by conducting research that identifies vulnerability and developing strategic action plans to mitigate climate change as well as adaptation techniques.	2003	
Philippines	<i>Climate Change Act of 2009 (Republic Act No. 9729) (and Implementing Rules and Regulations [IRR] of the "Climate Change Act of 2009"</i>	The Act establishes the Climate Change Commission as the sole policy-making body within government, and requires the Commission to draft a National Climate Change Framework, a detailed National Climate Change Action Plan and guidelines for local Climate Change Action Plans.	2009	






Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Poland	<i>Strategies for Greenhouse Gas Emission Reduction in Poland until 2020</i>	Outlines the actions to be taken in each sector of the economy to comply with international obligations including energy, industry, transportation, agriculture, forestry, waste, public utilities, services and households.	2003	
Russia	<i>Climate Doctrine of the Russian Federation</i>	The doctrine sets strategic guidelines for the development and implementation of future climate policy, covering issues related to climate change and its impacts.	2009	 Presidential decree from 30 September 2013 adopting a target for GHG emissions: by 2020 they cannot exceed 75% of the total emissions of 1990
Rwanda	<i>Green Growth and Climate Resilience – National Strategy on Climate Change and Low Carbon Development</i>	Includes a collection of 9 working papers covering all major sectors relating to mitigation and adaptation.	2011	 The Second Economic Development and Poverty Reduction Strategy (2013-2018)
Saudi Arabia	No flagship legislation			
Senegal	<i>Ministerial Decree 1220 establishing the National Climate Change Committee</i>	The Decree formalises the creation of the National Climate Change Committee (NCCC) with jurisdiction over all domains related to the activities related to the UNFCCC and its legal instruments.	2003	
South Africa	<i>National Climate Change Response Policy White Paper (NCCRP)</i>	The Policy is a comprehensive plan to address both mitigation and adaptation in the short, medium and long term (up to 2050). Strategies are specified for: Water; Agriculture and Commercial Forestry; Health; Biodiversity and Ecosystems; Human Settlements; and Disaster Risk Reduction and Management.	2011	

Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
South Korea	<i>Framework Act on Low Carbon Green Growth</i>	This law creates the legislative framework for mid- and long-term emissions reduction targets, cap-and-trade, carbon tax, carbon labelling, carbon disclosure and the expansion of new and renewable energy.	2009	
Sweden	<i>Integrated Climate and Energy Policy</i>	The Climate Policy Bill specifies targets for reducing GHG emissions and provides a joint action plan to achieve emission reductions. The Policy includes various taxation measures, including a carbon tax, and facilitates green investments in developing countries, climate policy and development co-operation and an increased focus on climate change adaptation.	2009	 Changes in the act concerning energy tax (part of climate and energy package within 2013 national budget bill)
Switzerland	<i>Revised CO₂ Act</i>	The revised act sets emission reduction targets of 20% below 1990 levels by 2020 and sets interim goals and measures for buildings, transportation and industry.	2013	 CO2 Act (fully revised version); CO2 emission regulations for new cars SR 541.711. Package including measures under "Energy Strategy 2050" in parliament.
Tanzania	<i>2012 National Climate Change Strategy</i>	The Strategy aims to enable Tanzania to effectively adapt to climate change and participate in global efforts to mitigate climate change, whilst also achieving sustainable development.	2012	 National Strategy on REDD+

Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
Thailand	<i>Strategic Plan on Climate Change (2008-2012)</i>	The Plan created a strategic framework for climate change policy-making, in regards to building capacity to adapt and reduce vulnerabilities to climate change impacts; promoting GHG mitigation activities based on sustainable development; supporting research and development to better understand climate change, its impacts and adaptation and mitigation options; raising awareness and promoting public participation; and supporting international co-operation to achieve the common goal of climate change mitigation and sustainable development.	2008	
Turkey	<i>Law No. 5346 on Utilization of Renewable Energy Sources for the Purposes of Generating Electrical Energy</i>	The law (known as the Renewable Energy Law) encourages the use of renewable energy. It encompasses the procedures and principles of the conservation of renewable energy resource areas, certification of the energy generated from these sources, and use of these sources.	2005, amended 2010	
United Arab Emirates	No flagship legislation			 UAE Energy Efficiency Standardisation and Labelling Scheme
Ukraine	<i>National Action Plan on Implementation of the Kyoto Protocol</i>	The National Action Plan primarily focuses on the development of a GHG emissions inventory, on an absorption inventory and preparation for use of financial mechanisms.	2005	
United Kingdom	<i>Climate Change Act</i>	The Act provides a long-term framework to improve carbon management, promote the transition to a low carbon economy, and encourage investment in low carbon goods. It includes specific emissions reduction targets (at least 80% reduction from 1990 levels by 2050) and creates 5-yearly carbon budgets.	2008	 Energy Act passed in December 2013

Country	Name of Law	Main Purpose	Date Passed	Progress in 2013 ¹
United States of America	<i>Clean Air Act</i>	Following the “endangerment finding”, the EPA is now required to regulate gases for their GHG potential under the Clean Air Act.	1963 (amended 1976 and 1990)	
Venezuela	No flagship legislation			
Vietnam	<i>The National Climate Change Strategy and the No: 2139/QĐ-TTg Decision on Approval of the National Climate Change Strategy</i>	The Strategy sets out a number of objectives: ensure food security, energy security, water security, poverty alleviation, gender equality, social security, public health; enhance living standards, conserve natural resources in the context of climate change.	2011	 Resolution 24/NQ-TW: Active response to climate change, improvement of natural resource management and environmental protection

Key

-  New legislation in 2013 advancing GHG mitigation and/or adaptation
-  No new legislation in 2013 advancing GHG mitigation and/or adaptation
-  Legislation advancing GHG mitigation and/or adaptation repealed in 2013
-  Positive legislative proposals introduced
-  Negative legislative proposals introduced

3 Climate Change Legislation at the End of 2013

This section reviews the state of climate change legislation at the end of 2013. It reviews the total stock of climate laws in the 66 study countries and identifies patterns, themes and trends.

3.1 The Stock of Climate Change Laws

At the end of 2013 there were 487 climate change-related laws or policies of equivalent status in the 66 study countries. The 20 Annex 1 countries in the sample had passed 194 climate laws, compared with 293 laws in the 46 non-Annex 1 countries. 58% of the identified laws were legal acts passed by parliament, while 40% were executive orders or policies. (The remaining 2% had both executive and legislative features or could not be classified).

The motivations of acts, either legislative or executive, is one of several dimensions in which the legislative approaches of countries differ. Across the 66 countries, we observe a rich diversity of approaches in terms of legislative focus, ambition and institutional arrangements. Some laws address several different objectives (for example a single law covering carbon pricing, energy efficiency and renewable energy), while others focus narrowly on a particular sector. Some laws contain firm commitments of a statutory nature, while others are more aspirational.

The study makes no normative judgments about these choices or indeed the merit of individual pieces of legislation. Nor is there a “right number” of climate change laws. What must be noted, though, is that *the cumulative environmental ambition contained in the 487 laws is not yet sufficient to stabilise climate change at a level that is consistent with the agreed objectives of the UN Framework Convention on Climate Change.*

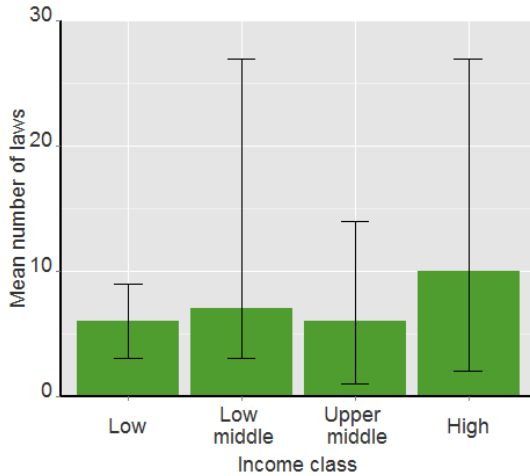
To reflect the diversity in approach the study adopts the same broad definition of climate change legislation used in previous studies and uses the same eight categories to classify the sectoral focus of legislation (see Section 3.3 for definitions). These categories are not exclusive, and many pieces of legislation cover several different categories.

As in the earlier editions, the study focuses on national-level legislation. In many countries, such as Brazil, Canada and the US, there is substantial additional action at the sub-national and supra-national levels. These are crucial activities, but not covered in detail here.

The 66 study countries include some of the world’s richest and poorest nations, and both big and small contributors to global greenhouse gas emissions. Figure

3.1 shows the number of climate change laws by income group. The figure suggests that high-income countries tend to have a higher legislative density, with on average 10 climate laws per country, compared with 6 laws on average in low-income countries. However there are variations. Even in the high-income bracket there are countries with little climate legislation, while some lower-middle income countries have in excess of 25 laws.

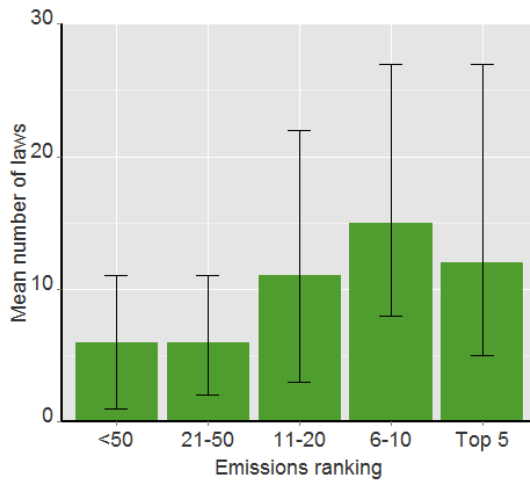
Figure 3.1. Average number of climate laws by income group



Note: Income classifications according to the World Bank, 2012. The bar shows the average number of laws in an income group. The black line indicates the range within an income group.

Figure 3.2 breaks down legislative activity by greenhouse gas emissions. Climate laws - covering mitigation or adaptation or both – tend to be concentrated in high-emitting countries, in particular the top 6-10 emitters, which on average have 15 climate laws each.

Figure 3.2. Average number of climate laws by GHG emissions



Note: Emissions classification is as in section 4. Emissions data are from the CAIT database of the World Resources Institute, 2010. The bar shows the average number of laws in a group; the black line indicates the range within a group.

There is considerable variation within groups, not least among the top five emitters. That group includes the entity with the highest number of climate laws in our sample (the European Union with 27 laws), but also countries with relatively few climate laws, such as China with five laws. Among the remaining top-5 emitters, the US and Japan have each passed eight climate laws and India 10.

The number of climate laws and policies is not a perfect indicator of a country's commitment to climate action and is only loosely correlated with climate change ambition: legislative approaches differ, as does the level of ambition in individual laws. In addition, there are issues of context and comparability: a given law or policy in one country does not necessarily have the same impact as it would in another. The impact of law and policy is moderated by the countries' institutional context. For instance a national development plan which is strictly adhered to is likely to be more significant than a law that lacks compliance and enforcement. Further, some countries have a culture of taking action through development of national policies, whilst others follow a strictly legislative approach.

3.2 The Dynamics of Climate Change Legislation

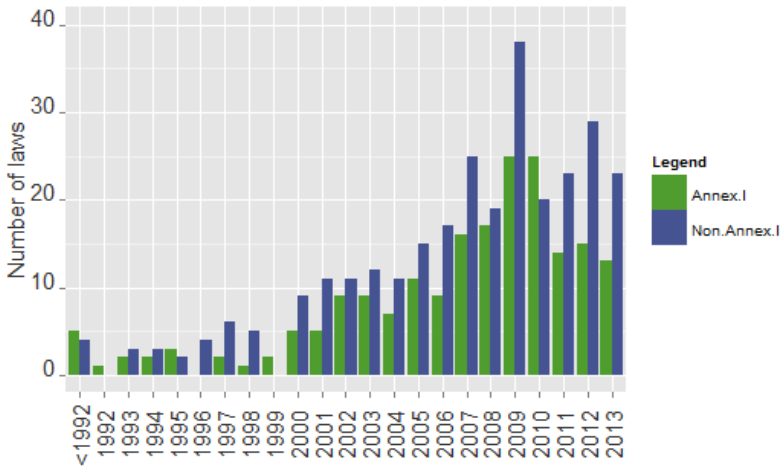
At least 30 climate change laws are passed in the 66 study countries in a typical year. Figure 3.3 shows the evolution of climate legislation over time, broken down into Annex 1 and Non-Annex 1 countries. The result of this sustained legislative activity is shown in Figures 3.4 and 3.5, which illustrate the growth in the stock of climate change legislation over time, and a comparison between climate legislation across the globe in 1997 and 2013, respectively. Over this period, the stock of climate laws has risen from less than 40 in 1997 to almost 500 now. At the same time, the legislative momentum is shifting from Annex 1 countries to non-Annex 1 countries.

Over the past decade, the typical Annex 1 country passed a climate change law every 18 months, except in the period 2008-10 when there was a notable acceleration. Many countries passed their flagship legislation during this time, probably in response to international and domestic pressure in the advent to COP15/CMP5 in Copenhagen, or to underpin the national pledges made under the Copenhagen Accord.

Legislation in Annex-1 countries since Copenhagen has aimed primarily at the implementation of earlier commitments. For example, in the UK the 2008 Climate Change Act, which set legally binding emissions targets, was followed by

the 2013 Energy Act, which pushes forward decarbonisation in the energy sector. There is still consolidation, experimentation with new policies, changes in ambition and in some cases reversal, but in general there is a strong stock of existing laws. The focus has shifted from creating a legislative basis to the practical challenges of implementation.

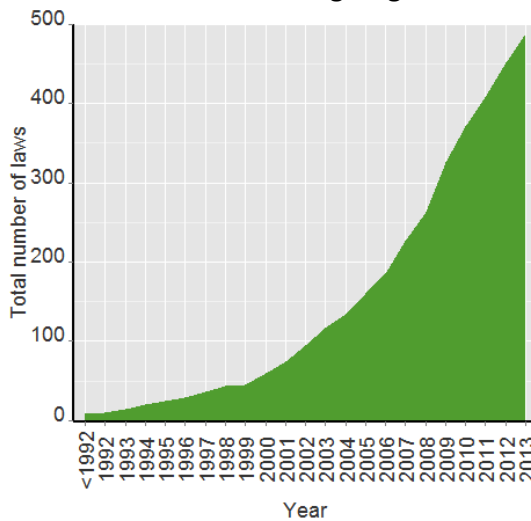
Figure 3.3. Climate change legislation over time



Note: Annex I and non-Annex I as defined in the UN Framework Convention on Climate Change.

There also remain a handful of countries that have not yet engaged with climate change, or do not see it as a legislative priority, but their number is shrinking.

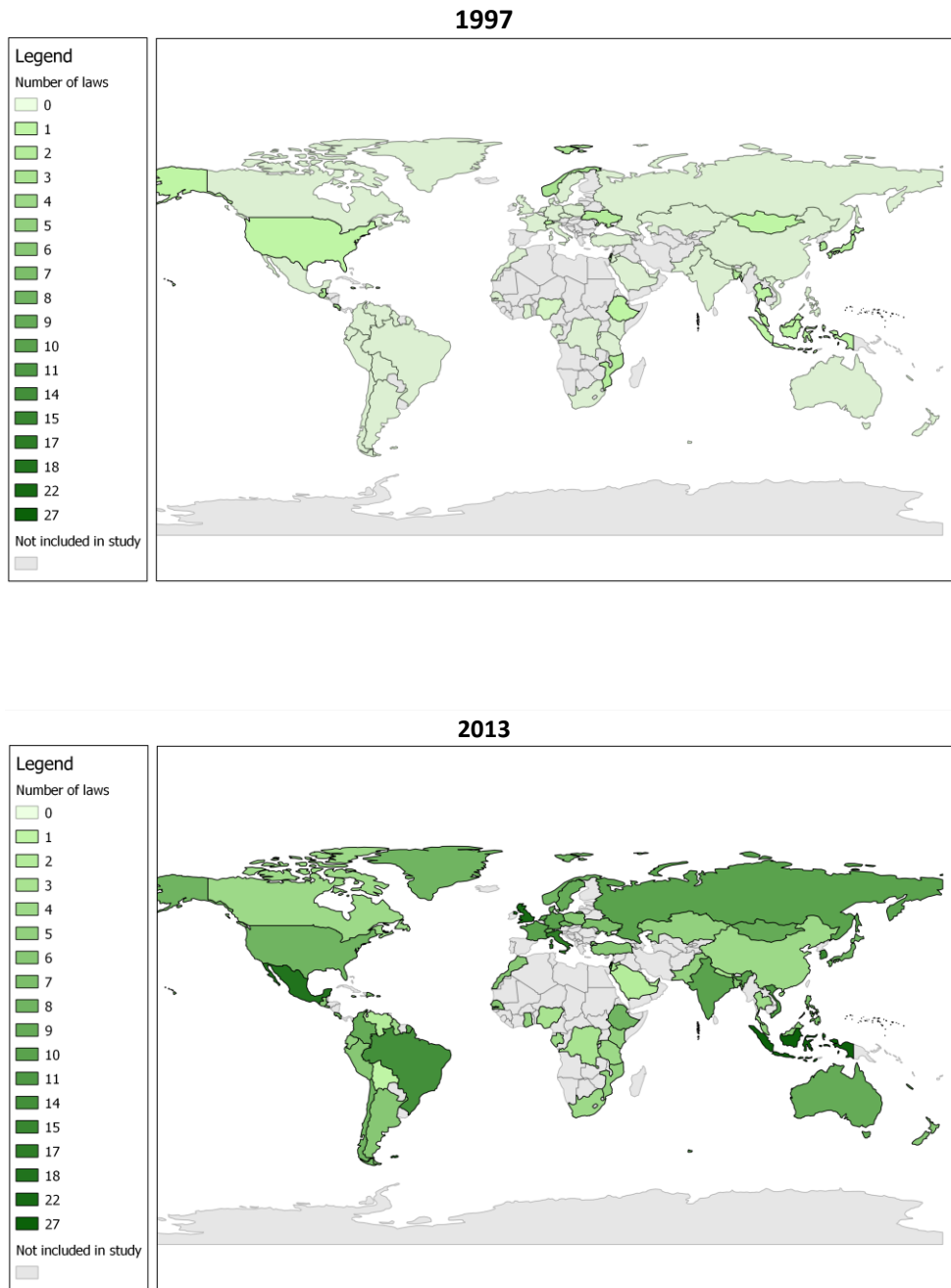
Figure 3.4 Stock of climate change legislation over time



Non-Annex 1 countries have engaged with climate change as a legislative issue more recently, and the pace of legislation is still increasing. In the period 2004-08 a non-Annex 1 country would typically pass a climate change law every 31 months. In the period 2009-13 this accelerated to a law every 20 months. This is close to the legislative pace in Annex 1, but the dynamics are different. Outside Annex 1 fundamental new laws are still being added to a relatively small stock, including the drafting of new flagship legislation, such as Mexico's General Law on Climate Change in 2012.

The legislative trends of the past few years are likely to continue. As we have seen in Chapter 2, several countries are in the process of preparing new flagship legislation. It is possible that a new peak of legislative activity may occur in the run up to, and shortly after, the 2015 negotiations when a new post-2020 deal is due to be agreed under the Durban Platform.

Figure 3.5. Climate change legislation in 1997 and 2013



3.3 The Sectors Covered in Climate Legislation

The body of climate legislation in the 66 study countries deals with the full range of institutional, policy and legislative issues associated with climate change, although a clear delineation of the related energy, transportation, land-use and resource management objectives is not always easy. Many climate change laws also address other issues such as air pollution, energy security, green growth or disaster risk management. In this study, we used the following broad categorization to classify legislation – carbon pricing, energy demand, energy supply, REDD+ and LULUCF, transportation, adaptation, research and development, and institutional or administrative arrangements. A breakdown of the categories covered by legislation in each of the 66 countries can be found in Table 2.

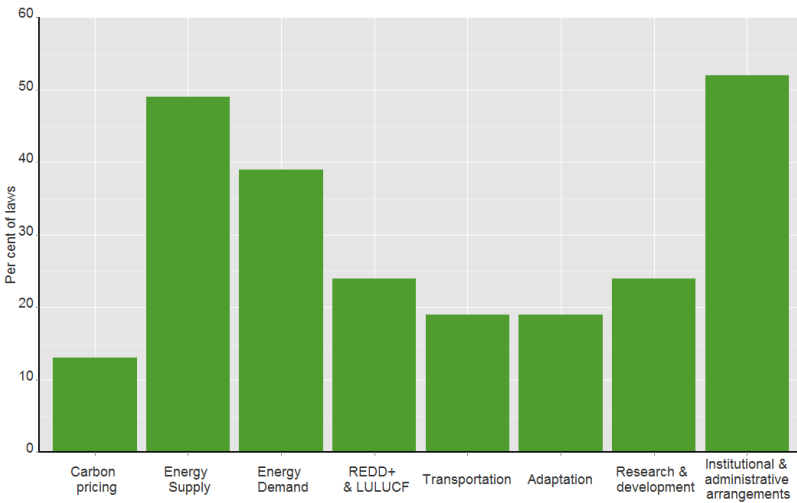
Most countries have enacted at least one law or executive policy to address each of these principal categories. There are only five countries without climate-relevant laws on energy supply, for example. Thirteen countries do not have any legal adaptation provisions, but many of them have policies of a less formal nature. Many countries have developed nationally appropriate institutional arrangements, which feature in over half of all laws, although the solutions put forward vary widely.

Figure 3.6 summarises the extent to which the categories are addressed in climate legislation. Energy supply (in particular renewable energy) and energy demand (in particular energy efficiency) are dominant issues, reflecting the fact that around two-thirds of global emissions are energy-related. Almost half of the laws identified in the study deal with energy supply issues, and nearly 40% are concerned at least in part with energy demand (mostly energy efficiency). In contrast, relatively few laws tackle the need to price carbon.

LULUCF, which includes agriculture, accounts for most non energy-related emissions. Laws addressing LULUCF feature particularly in those countries where it is the main source of emissions. Bangladesh, Brazil, Indonesia, Mexico, Nepal and Vietnam all have significant laws and regulations designed to reduce deforestation. About one quarter of all laws deal with land-use and forest-related emissions.

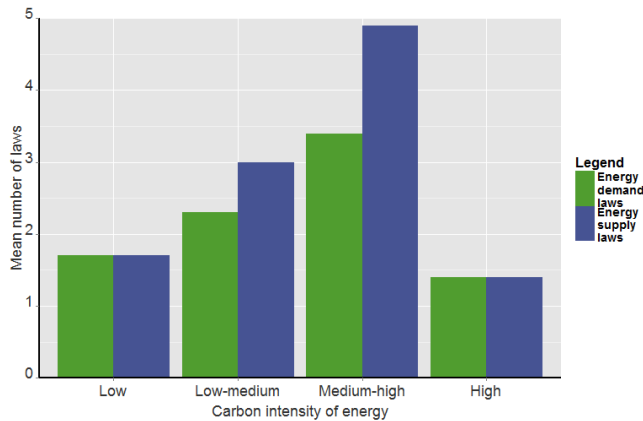
Adaptation and resilience to climate risk is only covered in about one fifth of all laws. However, it is the main focus in highly vulnerable countries such as Bangladesh, Jamaica, Kenya, Micronesia, Mozambique, Nepal and Philippines.

Figure 3.6. Percentage of laws covering each category



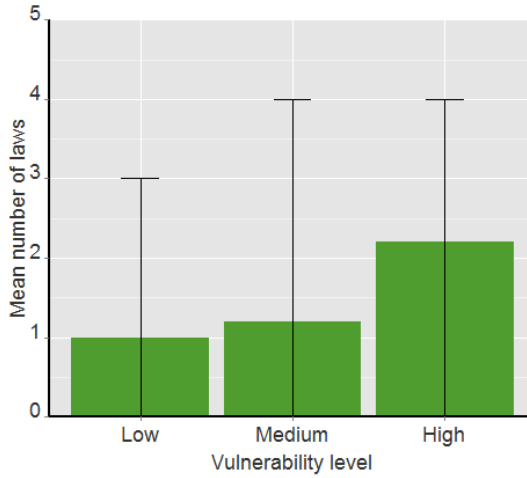
The observation that climate legislation is relatively well targeted and concentrated in the main areas of concern is reinforced in Figures 3.7 to 3.9. Figure 3.7 shows that legislation on energy supply and demand is particularly prevalent in countries with high energy-related emissions, although countries with a low carbon intensity of energy tend to have more laws than those with medium to high carbon intensities. Figure 3.8 suggests that countries especially vulnerable to climate change tend to have more adaptation laws on average, even if the absolute number is relatively low. Figure 3.9 shows how the number of forest laws is linked to a country’s forest cover.

Figure 3.7. Energy-related laws and the carbon intensity of energy



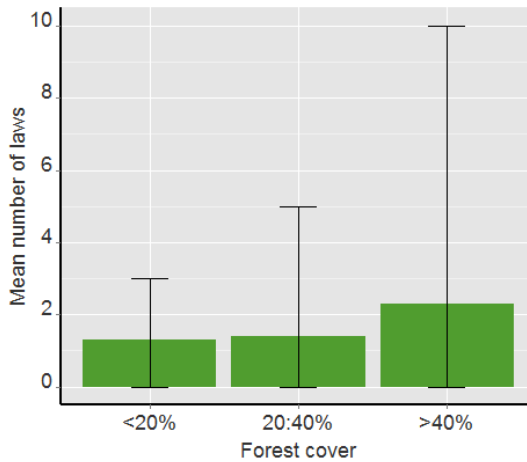
Note: Countries were grouped into four categories according to the carbon intensity of their energy sector, measured in kilogrammes of CO2 per kilogramme of oil equivalent energy use. In particular: Low: <1000 kgCO2/kgoe; Low-medium, 1000-1999 kgCO2/kgoe; Medium-high, 2000-2999 kgCO2/kgoe; High, >3000 kgCO2/kgoe. Data from World Bank Development Indicators.

Figure 3.8. More adaptation laws in highly vulnerable countries



Note: Countries were grouped into three vulnerability categories according to their score in the GAIN index of climate vulnerability. In particular: low = GAIN score of 1-50; medium =51-100, high =101-150. For details of the GAIN index see <http://index.gain.org/>.

Figure 3.9. More forest laws in countries with high forest cover



Note: Countries were grouped into three categories according to their area of forest cover, relative to total land mass. In particular: low = < 20% of land mass covered by forests; medium = 20 – 40% forest cover; high >40% forest cover. Data from the World Bank Development Indicators.

Table 2: Sectoral Coverage of Legislation

Country	No. of Laws	Pricing carbon	Energy Demand	Energy Supply	REDD+ and LULUCF	Transportation	Adaptation	Research and Development	Institutions/ Administrative Arrangements
Argentina	6	X	X	M		X		X	X
Australia	9	X	X	M	X	X			X
Bangladesh	5	X	X	X	X		X	X	M
Bolivia	3			X	M	X	X	X	X
Brazil	14		X	X	X		X	X	M
Canada	4	X	X	M		X			
Chile	9		X	M	X		X		X
China	5	X	M	X	X	X	M	M	M
Colombia	9		X	M	X	X	X	X	M
Costa Rica	7	X	X	M	X		X		X
Czech Republic	6	X	M	M		X			X
DRC	3			X	M		X		
Denmark	8	X	M	X	X	X	X	X	X
Dominican Rep	7			M	X		X		X
Ecuador	5				X		X		X
El Salvador	6		X	X	X		X	X	M
Ethiopia	9		X	X	X	X	X	X	M
EU	27	X	M	X	X	X	X	X	X
France	10	X	M	X	X	X	X	X	X

Country	No. of Laws	Pricing carbon	Energy Demand	Energy Supply	REDD+ and LULUCF	Transportation	Adaptation	Research and Development	Institutions/ Administrative Arrangements
Gabon	4				M		X		X
Germany	12	X	X	M		X	X	X	X
Ghana	5			M			X		X
Guatemala	6		X	X	X	X	X	X	M
Guyana	4		X	X	X		M	X	M
India	10	X	M	X	X	X	X	X	M
Indonesia	27		X	M	M		X	X	M
Israel	11		M	X		X		X	M
Italy	17	X	X	M	X	X			X
Jamaica	4		M	X	X		X	X	X
Japan	8	X	M	X		X		X	X
Jordan	3		M	M	X		X	X	X
Kazakhstan	5	X	X	M	X		X	X	X
Kenya	5		X	X	X		X		M
Malaysia	5		X	X	X				M
Maldives	1		M	M	M		M	M	M
Mexico	9	X	X	X	X	X	X	X	M
Micronesia	3		M	M	X		X	X	X
Mongolia	9		X	X	X		X	X	M
Morocco	6		M	M	X	X		X	M

Country	No. of Laws	Pricing carbon	Energy Demand	Energy Supply	REDD+ and LULUCF	Transportation	Adaptation	Research and Development	Institutions/ Administrative Arrangements
Mozambique	5			X	X		X	X	M
Nepal	3						M	M	M
Netherlands	7	X	X	M	X	X	X	X	X
New Zealand	6	M	X	X					M
Nigeria	3			M	X	X	X	X	X
Norway	8	X		X	X	X	X		M
Pakistan	7		X	X	X	X	X	X	M
Peru	6		X	M	X	X	X	M	X
Philippines	7		X	X	X	X	X	X	M
Poland	4		X	X	X	X	X	X	X
Russia	10	X	X	X	X				M
Rwanda	5	X	X	M	X	X	X	X	M
Saudi Arabia	3		X				X		M
Senegal	6			X	X	X	X		M
South Africa	4	X	M	X		X	X	X	X
South Korea	15	X	X	X	X	X	X	X	M
Sweden	7	M	X	X	X	X	X	M	X
Switzerland	8	X	M	X	M	X	X	X	X
Tanzania	5			X	X	X	X	X	M
Thailand	4		X	X			X	X	X

Country	No. of Laws	Pricing carbon	Energy Demand	Energy Supply	REDD+ and LULUCF	Transportation	Adaptation	Research and Development	Institutions/ Administrative Arrangements
Turkey	6		X	M	X	X	X	X	X
UAE	2		M	M				M	M
Ukraine	7	X	X	X		X	X	X	M
UK	22	X	M	X		X	X	X	X
US	8		X	M	X	X		X	X
Venezuela	2		M				M	M	M
Vietnam	10		X	X	X	X	X	X	M
Total	487	27/66	54/66	61/66	50/66	38/66	53/66	48/66	64/66

Key:

M = Main Focus – defined as the category or categories addressed by the greatest number of laws in a given country.

X = category covered by at least one law