

Legislating for a low carbon transition in Europe: experiences in the UK, France and Spain

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Summary¹

The aim of this working paper is to provide an updated analysis of the key features enshrined in climate laws that can be considered in the adoption of Spain's upcoming Climate Change and Energy Transition Law. To do so, the analysis mainly focuses on the lessons learnt from the UK Climate Change Act of 2008 as well as from the French Energy Transition Law adopted in 2015. These features include, among others: (1) an independent advisory body, with appropriate funding to provide policy-makers with the information they need to set and implement increasingly stringent mitigation targets and locally adequate adaptation goals; (2) the use of a ratchet mechanism (eg, carbon budgets) to be set well in advance in order to counteract the effect of political cycles; (3) a Net Zero target by 2050; (4) institutional allocation of responsibilities and timelines to meet them; (5) mandatory climate-related financial disclosures to help redirect financial flows towards investments compatible with the goals of the Paris Agreement; and (6) robust citizen-engagement mechanisms and Just Transition Strategies, as climate laws require cooperation at all levels of government and acceptance by all stakeholders.

This paper moves on to analysing the climate proposals presented in Spain by two parties, the conservative *Partido Popular* (PP) and the far-left *Unidas Podemos* (UP) as well as the proposal of the previous socialist government (led by the *Partido Socialista Obrero Español*, PSOE) in February 2019. Based on an analysis of both the proposed draft bills and the political party representatives' views on the climate law, the paper concludes that beyond the acrimonious political debate, a consensus on climate law could well be reached. This cross-party support could emerge even if disagreement is likely to persist on the precise instruments to achieve the decarbonisation goals, among others. On the demand side of Spain's 'climate law market', this paper summarises the main findings of the 2019 Elcano Royal Institute survey on citizens and climate change. The survey asked interviewees about their support for key elements that could be included in the climate law. The results of the survey indicate, as do other surveys, a high degree of concern about climate change, the widespread belief that Spain is not doing enough to address it and significant support for core elements of a robust climate law. Unsurprisingly, caution should be exercised when designing climate policy instruments, as a significant concern-intention gap is seen when asking respondents about their willingness to pay a higher road-tax to mitigate climate change. Fulfilling Spain's aspiration to lead the fight against climate change requires closing the gap between concern, intentions and actions. It also requires leadership, engagement, cross-party consensus and careful policy design to avoid a social backlash.

¹ The authors gratefully acknowledge the comments and suggestions of Gonzalo Escribano and David Howell. The usual disclaimer applies.

(1) Introduction: key drivers of the low carbon and climate resilient transition

The adoption of the Paris Agreement on climate change in December 2015 has marked a substantive shift in climate change governance (eg, Falkner, 2016; Fay *et al.*, 2015). The international community has agreed to keep the global temperature increase well below 2° Celsius and to pursue efforts to limit it even further to 1.5° above pre-industrial levels and set the goal for the global transition to net zero emissions in the second half of this century. It has also agreed to align financial flows with climate goals.

However, the emission reduction levels pledged by individual countries in their Nationally Determined Contributions (NDCs) remain well below the levels consistent with scenarios that would give us a likely chance of keeping the temperature increase below 2° (Rogelj *et al.*, 2016; Rockström *et al.*, 2016; and UNEP, 2016). At the same time, keeping global temperature increases below 1.5°C and avoiding reliance on future large-scale deployment of carbon dioxide removal can only be achieved if global CO₂ emissions start to decline well before 2030 (IPCC, 2018).

Successful implementation of the Paris Agreement requires that the targets pledged internationally via the NDCs are fully integrated into domestic legislative and policy frameworks. It also requires a major political transformation as regards how countries approach climate action and define their ambition. In this context, domestic framework climate change legislation comes to the forefront as key means to consolidate political support for the climate agenda, to provide the framework for implementation of the NDCs and for assessing progress, as well as to enable ratchet of ambition going forward. While some progress has been made in those areas over the past several years, much work needs to be done. Many countries are looking to develop and adopt new laws, strengthen their existing laws and policies, and align them with the Paris Agreement.

Over the past two decades there has been a sustained growth in the number of climate-change laws and executive acts around the world. According to the Climate Change Laws of the World database (GRI, 2019), as at 30 November 2019 there were over 1,800 national laws and executive acts addressing aspects directly related to climate change (eg, climate strategy and targets, adaptation, mitigation, low carbon energy, agriculture and other sectors). This is an over twentyfold growth over the past 20 years,² with a remarkable increase in developing countries in recent years (Nachmany *et al.*, 2017). Overall, as at November 2019, 42% of entries in Climate Change Laws of the World were legislation, and the remaining 58% executive policies. In 2017 over 70% of global greenhouse gas (GHG) emissions and 76% of the population were covered either by nationally binding climate legislation or by executive climate strategies with a clearly designated coordinating body, while climate legislation alone covered 44% of emissions and 36% of the population. That year 76% of countries had a national emissions target of some sort compared with only 23% in 2012 (Lacobuta *et al.*, 2018).

² Based on data in the GRI, 2018; data retrieved 30/IX/2018.

The first comprehensive climate legislation to introduce legally binding targets on GHG emissions was the UK's Climate Change Act of 2008.³ France's Energy Transition Law of 2015⁴ was the first domestic law to mandate climate-related risk disclosure for asset managers. Mexico's General Law on Climate Change of 2012 was amended in 2018 to bring it into consistency with the Paris Agreement and the NDCs, while Sweden's Climate Change Act of 2017 includes one of the most ambitious targets integrated into a law: to reach net zero emissions by 2045. Some other examples of framework climate change laws include the climate change acts of Finland (2015), Norway (2017), Kenya (2016) and Ireland (2015). Most recently, in November 2019 New Zealand adopted a Climate Change Response (Zero Carbon) Bill (2019), which among other things established a target of climate neutrality by 2050 for all GHGs except biogenic methane. At the time of writing several countries are in the process of developing framework climate and energy transition laws, including Spain, South Africa and Chile, to name a few. This article considers experiences and recent developments on climate and energy transition legislation in the UK, France and Spain with the aim of providing insights for other countries.

(2) The UK's Climate Change Act of 2008

(2.1) Context

Having passed the Climate Change Act (CCA) in 2008, the UK became the first country to legislate national emission reduction targets and to date remains a country with one of the most comprehensive national climate laws globally. The adoption of the Act was enabled by strong political commitment to a climate change agenda at the time, among others through the UK putting climate change on the agenda of the G8 Summit that it hosted in Gleneagles in 2005 and the publication of an influential report *The Economics of Climate Change: The Stern Review* (Stern, 2007), commissioned by the Government. A strong cross-party consensus on the importance of acting on climate change resulted in only three Members of Parliament voting against the Climate Change Bill at the second and third readings (Fankhauser *et al.*, 2018).

Ten years on, the Act's framework contains the key building blocks that are required to implement the Paris Agreement, including the long-term emission goal, provisions for ratcheting ambition over time, mechanisms for developing and assessing adaptation and mitigation policies and actions, and mandatory progress monitoring. The Act has 'survived' four changes in government and has played an important role in maintaining political commitment to climate policy through political and economic shocks that affected the UK over the past 10 years (Fankhauser *et al.*, 2018). It was further amended in 2019 to make the long-term emission reduction goal consistent with the Paris agreement, namely, to reach net zero by 2050 ('The Climate Change Act 2008 (2050 Target Amendment) Order 2019').

³ 'The Climate Change Act 2008 c 27', 2008.

⁴ 'LOI n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte, Journal Officiel du 18 août 2015'.

(2.2) Institutional framework: key mandates and accountabilities

While the key governmental institutions responsible for dealing with climate change had been established prior to the adoption of the Act, the CCA defines the overall duties and powers of the government as regards climate change policy, it establishes an independent advisory body, the Committee on Climate Change (CCC), and clarifies the mandates of the key players. Coordination for the Act's implementation and overall climate change policy is the responsibility of the Secretary of State, who is mandated by the Act to present proposals for carbon budgets and on the policies to achieve them, having consulted with the relevant national authorities and subnational governments.

The creation of a CCC has been the Act's key innovative feature, which has later been applied by other countries. The CCC is an independent, non-governmental public body comprising eight technical experts that has its own budget and secretariat, with an average annual budget of £3.7 million. The committee's mandate covers both mitigation and adaptation (through its Adaptation Sub-Committee). Its Chair is appointed for a period of five years by the Prime Minister, while its members appointed by the Secretary of State based on their recognised technical expertise rather than on affiliation with or representation of stakeholder groups. In the 10 years since its inception, the CCC has gained a reputation as a credible provider of analyses that are being used by politicians, government experts, the private sector and journalists.

A recent study finds that evidence from the CCC is used beyond matters related to the CCA and featured prominently in the parliamentary debates on new legislation on energy, infrastructure, water and Brexit, among other things, across the British political spectrum (Averchenkova *et al.*, 2018). The committee has a clear mandate outlined in the Act to advise the government on future carbon budgets and to assess progress in meeting them. Importantly, the Act requires the government to respond to the CCC's recommendations, making it difficult to ignore its advice (Fankhauser *et al.*, 2018).

A key feature of the Act is *the mechanism for ensuring accountability* of the Government for its implementation. The Act requires the Secretary of State to develop policy proposals and plans to implement the carbon budget. The Secretary of State must also report to Parliament with an annual statement on greenhouse gas emissions. The CCC is mandated to prepare an annual report on the state of implementation of the carbon budgets and an assessment on whether the Government is on track to meet the budgets and on further progress needed. The Government is also mandated to report every five years on the risks to the UK of climate change, and to publish a programme setting out how these impacts will be addressed. Progress reports on adaptation are prepared by the CCC biannually and are also presented to Parliament. As noted above, the Secretary of State has a duty to present to Parliament a detailed response to the CCC's reports under clear timelines specified in the Act. This regular reporting keeps climate policy on the agenda, ensures transparency and accountability for progress (Fankhauser *et al.*, 2018; ClientEarth, 2016), and ensures a greater effectiveness of the independent body (Averchenkova, 2019).

(2.3) Targets and ratcheting ambitions

The Act in its original reading defined a *long-term economy-wide emission reduction target* for greenhouse gas emissions to reach a level ‘at least’ 80% below 1990 levels. This target was set based on the latest scientific information as presented in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, 2007) and on an assessment of the UK’s fair contribution to the international objective of keeping a 50% chance of limiting the increase in global mean temperatures below 2°C (CCC, 2008). The target was amended in 2019 in order to reach net zero emissions by 2050, based on the advice from the CCC.

Another innovative feature of the Act is the establishment of statutory five-year *carbon budgets* –a mechanism that sets rolling medium-term targets 12 years in advance, to achieve the long-term emission objectives in a cost-effective way–. That requirement for the budgets to be set in advance is key to afford sufficient lead time for the private sector to adapt and allows politicians to surpass short term electoral cycle calculations in their voting of CO₂ budgets. Up to now, five carbon budgets have been agreed to 2032, with the latest budget limiting annual emissions, on average, to 57% below the level in 1990. In fact, the system of carbon budgets provides for a ratchet mechanism to increase ambition from 2008 towards the 2050 target, the first of its kind to be implemented at the national level for greenhouse gas emissions.

(2.4) A flexible approach to policy making

The emission targets are set at the national level and the implementation mechanisms created by the Act focus on national government agencies (eg, BEIS and DEFRA) with an oversight by Parliament. However, the Act mandated the devolved administrations (Scotland, Wales and Northern Ireland) to create their own policies and implement national targets, but there are no provisions for councils, cities and English regions (Fankhauser *et al.*, 2018). Scotland and Wales have adopted their own climate change laws and policies, which draw upon and interact with the CCA. The Act specifies, however, that the Secretary of State must consider the views of other national authorities when amending the 2050 target or determining the levels of the carbon budgets.

Interestingly, the Act focuses on the processes to determine and deliver policies rather than prescribing a policy instrument upfront. Thus, it allows flexibility to the Government on the choice of policies to achieve the carbon budgets. This flexibility was a strategic decision taken at the outset and is built into the Act’s design. As discussed, the Government outlines the key policies in its report on the proposed actions to meet the carbon budget. The Act also mandates a five-year cycle of Climate Change Risk Assessments followed by the development of a National Adaptation Programme. In this flexible approach to policy prescription and the means to achieve the low carbon and climate resilient transition, the Act differs from France’s Energy transition law that set specific levels of carbon tax. The downside of this flexibility is the risk of underperformance on emission targets. This is a growing concern in the UK at the time of writing, as the UK was widely anticipated to struggle with the achievement of the emission targets set in the 4th and 5th carbon budgets based on the policies foreseen in the Government’s Clean Growth Strategy (Committee on Climate Change, 2019).

(2.5) Overall assessment

A recent study analysed the impact of the Act based on interviews with senior policy-makers, legislators, and private sector and civil society experts who have been involved in the design and implementation of the Act (Fankhauser *et al.*, 2018). It found that the Act, among other things, has been instrumental in maintaining political commitment to the UK's long-term ambition even though the commitment to specific climate policies has changed. It also notes that the Act has improved the quality of the political debate on climate change, creating clear timelines and procedures for target setting, parliamentary scrutiny and reporting, while the reports by the Committee on Climate Change established an agreed empirical evidence base. Over the past 10 years the UK power sector has been transformed with the share of low carbon sources in the electricity mix reaching over 53% in the second quarter of 2018, up from around 20% in 2008. The Act was reported to be a major driver of this transformation, helping the UK decouple emissions from GDP.⁵ The framework set by the Act and the UK's experience in developing and implementing the legislation became the basis for the UK's extensive international engagement. It served as an inspiration to other countries and helped the UK take a stronger leadership on climate change internationally (*ibid*).

However, while the Act provides certainty about carbon targets, it does not offer certainty about the underlying policies to achieve the targets and cannot therefore by itself fully make up for the lack of political commitment and stronger leadership (Fankhauser *et al.*, 2018). This is particularly important given that the Act allows the Government much flexibility to design the underlying policies. In this context the success of the Act depends on the political leadership on climate change and continued cross-party support. This might raise a question as to whether the Act is still fit for the purpose to ensure that the government delivers on the legal requirements or whether certain reforms may be necessary. The survey of experts showed that the overarching view was that the CCA's infrastructure provides the necessary transparency, scrutiny and accountability, including credible independent analysis and pressure from the CCC (*ibid*). The Act's infrastructure also creates a legal basis for judicial review, which could come into play if the government fails to achieve the targets set in the carbon budget in the future.

Going forward, the UK is facing the challenge of ensuring that the next phase of its implementation delivers the required emission reduction, as emissions from more difficult sectors such as heat, transport and agriculture need to be tackled. The main risk is maintaining political consensus as those more challenging sectors are addressed. It would also be important to strengthen the safeguards against backsliding by the Government, for instance through the introduction of statutory timeframes for the publication of plans to meet the next carbon budget (*ibid*). The hosting of the Conference

⁵ The Act regulates the UK's emissions based on the standard 'territorial' accounting approach applied internationally, which only focuses on the emissions produced within the domestic borders. Emissions can also be measured on a 'consumption' basis for which the allocation by country is based on where goods and services (which lead to emissions during their production) are eventually consumed (Committee on Climate Change, 2019). While the UK's domestic GHG emissions have been falling consistently, emissions associated with imported goods that are not covered by the Act have recorded a poorer performance. Consumption emissions rose by 16% in the decade leading up to 2007 and have since fallen by 21% (Committee on Climate Change, 2019). However, accounting for consumption emissions has more uncertainties, so this data should be taken with caution (*ibid*).

of the Parties to the United Nations Framework Convention on Climate Change (COP 26) in Glasgow in November 2020 and the UK Citizens' Climate Assembly, also in 2020, could provide the necessary impulse to the UK's climate policy.

(3) France's Energy Transition for Green Growth Law

(3.1) Context

In 2015 France approved the Energy Transition for Green Growth Law (Energy Transition Law, ETL), following two years of public consultation and debate. President Hollande announced the drafting of the law during his 2012 presidential election campaign. Negotiations on the law took 150 hours of parliamentary debate with over 5,000 amendments submitted to the public hearings, of which 970 have been adopted (Euroactive, 2015; Collins, 2017). As a result, the law is very complex and ambitious in scope. It sets out to address energy transition and climate change covering several sectors of the economy (Dreyfus & Allemand, 2018).

Most of the implementing decrees that followed the law were adopted by November 2016. However, the challenge has been its slow implementation, in particular in terms of guidance and commitment from the top to the lower levels of government (Dreyfus & Allemand, 2018). According to recent analyses, France is not likely to meet its 2020 targets, while 2030 and 2050 targets are still achievable (*ibid*).

In June 2019 France approved a new law on Energy and the Climate (Law N 2019-1147),⁶ which builds on the Energy Transition Law and legislates the objective of carbon neutrality for 2050 and sets a number of quantified objectives for the energy sector.

(3.2) Institutional system: monitoring, accountability and stakeholder engagement

The Energy Transition Law strengthened existing institutions and created some new ones to support climate change policy and low carbon energy transitions. Similar to the UK's Act, it creates an *independent advisory body* –the Expert Committee for Energy Transition, composed of five independent energy and climate experts–. The Committee is responsible for monitoring and assessing the strategies and plans produced by the Government to implement the law and is consulted during the design of the carbon budget and the low-carbon strategy. However, no dedicated resources have been made available to fund the contribution of experts (Duwe *et al.*, 2017). Another weakness of the French system compared with the UK is that there is no statutory requirement for the Government to respond to the Committee's opinions, which are forwarded to the Parliament to be considered as part of the debate. This ambiguity in the mandate and the status of mere advice provided by the expert body diminishes its effectiveness (Rüdinger, 2017).

The monitoring and reporting system on greenhouse gas emissions in France is very complex and includes several mechanisms, which the law does not simplify (Rüdinger, 2018). The law mandates intermediary reporting every two years and a comprehensive evaluation report to be prepared by the Government at the end of each budget period to

⁶ 'LOI no 2019-1147 du 8 novembre 2019 relative à l'énergie et au climat', 2019.

determine whether adjustments are required. It also envisions administrative and financial sanctions when the compliance with its provisions is breached by the entities covered (eg, on energy efficiency standards). However, the accountability system created by the law has been criticised for not requiring parliamentary oversight for the low carbon strategy and multi-year energy plan, creating a risk for backsliding in the future. Also, monitoring and policy evaluation is carried out by the government itself, with a potential risk to independence and credibility (*ibid*).

The adoption of the law was preceded by a very extensive *stakeholder engagement and consultation process* building on the *Grenelle* process in 2007-10, which developed an innovative model of engaging with the five groups of stakeholders: the state, local authorities, companies, unions and environmental NGOs (Rüdinger, 2018). However, the government was criticised for not having a clear plan for how the stakeholders' input would then feed into the legislative process, which affects the overall credibility of the consultation. A special stakeholder commission was created to address this challenge (*ibid*).

(3.3) Targets and ratchet mechanism

France's Energy Transition Law (ETL) establishes a multitude of targets, including long-term greenhouse gas emission and energy usage targets to 2050. These targets are supplemented by a series of mid-term emission reduction targets to 2030, as well as detailed energy production and consumption targets for 2030 for the entire economy and key sectors, waste reduction and other targets. Like the UK's Climate Change Act, France's ETL adopts multi-annual progressively ambitious carbon budgets covering several five-year periods (three years for the first budget). The carbon budgets for 2015-18, 2019-23 and 2024-28 periods were published in 2015, while carbon budgets for future periods need to be set at least 10 years in advance.

The Energy Council assesses and issues an opinion on the levels of future carbon budgets and on the progress towards the implementation of the current one, as discussed above. However, the law does not specify whether the review and adjustment of targets should only be towards increasing ambition. This is not fully consistent with the requirements of the Paris Agreement, which requires ambitions to increase over time. Neither does the law define what circumstances can be considered a legitimate reason for triggering the review of target levels (unlike the UK's CCA, which lists the key factors that should be taken into account in these considerations).

(3.4) Policy processes, instruments and finance

The law mandates the government to develop a national low-carbon strategy every five years that should specify the level of carbon budgets, an indicative trajectory to achieve long-term targets and policy recommendations for all sectors. It also introduces a multi-year energy planning framework, which sets industry and region-specific objectives for energy supply and demand for two subsequent five-year periods. The law specifies policy interventions that aim to increase the share of renewables in the **energy mix** or that reduce **primary energy** consumption and define a trajectory for a carbon tax with a progressive increase from €14.50/tonne of CO₂ in 2015 to €56 in 2020 and €100 by 2030. Several provisions concern reductions in air pollution, for instance a clean transport

programme with incentives to purchase and use low-emission vehicles, waste reduction and decoupling economic growth from consumption of raw materials.

The Government is mandated to submit to Parliament a report on financing energy transition as a part of an annual draft budget submission. This includes an assessment of the financial needs to implement the law, public and private finance invested and a comparison of needs with available resources. The Law also creates and strengthens several existing financial instruments.

Through Article 173 of the ETL, France has become the first country in the world to introduce *mandatory climate change-related reporting* for asset owners and asset managers through its national legislation. This feature is widely regarded as the most powerful and innovative feature of France's legal framework. The law requires institutional investors to report on the impact of both physical risks and 'transition' risks caused by climate change on their activities and assets. While investors may choose which data to report, climate-related risk reporting is encouraged to include: the consequences of climate change and extreme weather events on the assets; changes in the availability and price of natural resources; and policy risks related to the implementation of national and international climate targets and measures of past, current or future emissions of greenhouse gases (both direct and indirect). This new focus meets the demand of investors to enhance financial risk assessment by taking better account of climate-related risks in order to allocate capital efficiently and avoid both stranded assets and litigation.

(3.5) Overall assessment

The adoption of the Energy Transition Law in France has been a major step towards institutionalising and putting into a legal framework a strategic long-term vision and the key policy planning instruments for decarbonisation of the economy and energy transformation. Having set the long-term target for 2050 and a system of carbon budgets, complemented by decarbonisation targets for several sectors, France has also become the first country to legislate requirements for climate-related risk disclosure for the investment community, which could have a transformational impact on the financial market. This firmly places France among the leading countries with strong national legal frameworks on climate change and low carbon energy transition.

However, several important gaps threaten the effectiveness of the law's implementation, some of which stem from its design while others relate to governance challenges in its execution. In the early years of the implementation of the law in 2015-17 France has already lagged behind in several of its targets. The overall complexity of the law and its excessively broad coverage present a significant coordination challenge.

Other gaps include the lack of clear financing mechanisms and relatively weak accountability mechanisms for the law's implementation. This concerns the relatively weak mandate given to the Expert Committee on Energy Transition. The lack of a requirement for the Government to respond to the Committee's recommendations and the failure to allocate dedicated funding for its work can diminish its effectiveness and weaken accountability in its implementation.

The inclusion of the 2050 climate neutrality target in the Energy and Climate Law in June 2019 was an important step in France, aligning its domestic framework with the objectives of the Paris agreement. Importantly, the law also amends the Energy Code, the Environment Code, the General code of local and regional authorities and other codes and laws to enable implementation of the strategic framework objectives. The law, which also enacted the closure of the last four French coal power plants, takes measures to improve energy efficiency in buildings and puts forward measures to regulate air and maritime international transport. It also amends several pieces of legislation to increase the emphasis on adaptation to climate change and resilience, alongside mitigation efforts.

(4) Learning from experiences with climate and energy transition laws

The adoption of climate change legislation starts with a careful process of building up political support. Developing a positive narrative around the benefits of the legislation, as well as creating positive political momentum are key for the success of the process and for avoiding polarisation across the political spectrum. Useful insights could be drawn from comparing the political drivers or origins between the climate change and energy transition legislation in France and the UK. In both cases the legislative processes have been generated through a personal commitment by the incoming Head of State or Prime Minister-to be in the wake of presidential or general elections. In the UK the Conservative Party was seeking to attract young voters and climate change was a promising issue, given its prominent position on the international agenda and the growing public concern about it (Fankhauser *et al.*, 2018). In France the adoption of the Energy Transition Law was preceded by a comprehensive stakeholder debate on energy transition, following an electoral promise by President François Hollande. The debate, however, was initially driven by the presidential commitment on the future of nuclear energy, rather than by the climate change agenda (Rüdinger, 2018).

Similarly, international factors played an important role in stimulating the approval of climate change legislation in the UK and France, which is consistent with the conclusions of a broader study by Fankhauser *et al.* (2015), which found that climate legislation is enabled by international developments, such as hosting international climate negotiations. In the UK it followed the country's position as the chair of G7 where climate change was prominent on the agenda, while France approved its law just before the landmark 2015 Paris summit on climate change.

(4.1) Scope, specificity and level of flexibility versus policy prescription

The scope of a legislative instrument and the level of specificity in prescribing particular policies or design features for policy instruments are two of the first critical decisions that need to be taken when developing a new law. The case of the UK demonstrates a flexible approach, where the government is given freedom to choose and design the best mix of policy instruments to apply in order to meet each carbon budget subject to a review by the Climate Change Committee (CCC) and parliamentary oversight. The advantage of this approach is greater political acceptability due to the possibility of adjusting the course based on changing economic conditions and lessons learnt. However, this model requires that clear institutional processes and statutory timelines are specified in the law

as regards how the government should respond to the mandate to develop the detailed policies. The lack of such statutory timeline for policy plans to be put in place has increased the risk of backsliding, as evidenced by the recent experience in the UK on the fifth carbon budget and by the current gap identified by the CCC between the policies in place and the target in the carbon budgets (Fankhauser *et al.*, 2018).

Overall, a flexible approach in how to meet climate targets could be more suitable for jurisdictions with good technical capacity in the executive branch, with capacity to develop policies and strong government accountability. Coordination of implementation has not yet presented a big challenge in the UK, as the first 10 years of implementation focused on the power sector, which is addressed by the same ministry as climate change. Going forwards, closer coordination will be required with other government departments and the suitability of the flexible model will then be further tested.

France takes the prescriptive approach, where the Energy Transition Law itself determines not only the overall targets and policy instruments, but also sets the level of carbon price over time, indicates targets for various sectors, including energy, transport, etc. This choice of approach reflects France's historically more centralised governance tradition. While, arguably, this approach presents a greater certainty by including the key targets and policies in the law, its weakness lies in the difficulty and time it takes to negotiate the law and its potentially lesser ability for course correction if required in the future. If chosen, a prescriptive model for legislation should include a clear mechanism for adjustment and transparently outline the key factors or types of circumstances that could trigger a change and a process for agreeing on the change.

A related political choice at the outset concerns the level of complexity of a framework law or executive framework. In the quest for being comprehensive it is useful to consider the additional effort, and therefore potential delay, to agreeing on the law and also whether it is worth to try to cover too much. The latter is evident in the case of France, which faces a risk of overloading the legislation with excessive technical details that make the process of its adoption complex and lengthy (Rüdinger, 2018). Yet it is important to ensure that there are no major gaps in the coverage. One such gap has been, for example, the coverage of adaptation. In the UK provisions on risk assessment and adaption are part of the core legislation but have a weaker implementation record compared with mitigation (Fankhauser *et al.*, 2018). France's Energy Transition Law leaves adaptation outside its scope and the gaps are partially addressed through the new Energy and Climate Law of 2019. Overall, there has been little analysis to date on the experiences with legislating on adaptation.

(4.2) Institutional mandates, parliamentary oversight and accountability

Clarity of the institutional mandates and coverage of the main climate and energy transition governance functions through these mandates are the essential factors for the effectiveness of the legislative instruments (and similarly of the executive frameworks). Depending on national circumstances, the core features of the overall institutional framework might already be in place and determined by prior legislation or executive regulation, such as in the case of France and the UK. The framework climate change and energy transition laws in such countries focus on clarifying the mandates of existing

institutions and setting up new mandates that arise from the law, and on creating new institutions where there are gaps. The latter in particular relate to setting up new independent advisory and consultative bodies. In countries where there are gaps in the overall institutional framework to address climate or energy transition, the key features of such a framework could be included in the legislation.

A common challenge for all legislative and executive frameworks is enforcement and accountability for implementation, for which parliamentary oversight can be a key lever. The UK model maintains a close parliamentary oversight over the proposed policies to implement carbon budgets and the actual performance in implementation. Annual reporting by the government is a major accountability mechanism, with the main incentive for compliance being the threat of a judicial review. In France the lack of prominent parliamentary oversight has been noted as a weakness in its accountability mechanisms.

Another key feature of accountability mechanisms is independent assessment and consultation. However, the track record in performance varies. Previous studies argue that the factors that determine the relative success of the independent advisory bodies include: providing them with a clear mandate; a formal requirement for the government to respond to the body's input; allocated predictable funding; independence from the government (financial and administrative); and a degree of parliamentary oversight and level of technical expertise (Averchenkova, 2019).

The UK's example highlights the importance that independent bodies play in improving the quality of the political debate, in holding the government to account and in providing quality analysis and policy evaluation, which are critical for effective learning. The CCC has been shown to have made a material difference to climate policy in terms of objectives (the statutory carbon targets), process (impact on parliamentary debate) and substance (eg, influencing new laws on energy, infrastructure, housing and water) and to provide a technical justification to political arguments for greater accountability and to push for more ambitious action (Averchenkova *et al.*, 2018). In France, however, there is a concern that the government is 'being both judge and party in evaluation' (Rüdinger, 2018, p.8). The Expert Committee for Energy Transition was meant to fulfil similar functions to the UK's CCC. Yet the legislation does not create a strong enough mandate for the institution since there is no provision for how and when the government needs to respond to its reports and no financial resources are allocated for its operation (Rüdinger, 2018).

Another lever for ensuring accountability and buy-in into the law and the underlying policy frameworks is a transparent and inclusive mechanism for stakeholder consultation, including civil society, the private sector, and regional and city governments. Past experiences indicate that it is important to have very clear and specific objectives for the consultation process and to have a clear plan on how the outputs feed into the parliamentary phase, which has presented challenges in the case of France and particularly Germany, potentially risking to undermine the credibility of stakeholder consultation (Averchenkova, 2019).

(4.3) Provision for ratcheting ambition and adjusting long-term targets over time

Provisions for ratcheting ambition over time in line with the long-term goal towards net zero emissions is another element of a domestic framework law that becomes essential to ensure consistency with the Paris Agreement. The system of five-year carbon budgets pioneered in the UK's CCA and adopted later by France has proved to be an effective instrument that provides a flexible yet predictable means for policy and investment planning. Equally, it is important for climate legislation to have flexibility for the targets to be adjusted in the future, based on new scientific evidence and other changing circumstances. However, the mechanisms for adjusting the target should be clearly defined to indicate the circumstances that could trigger the adjustment to avoid potential backsliding. In the UK the CCA in its original reading adopted the language of 'at least an 80%' reduction in greenhouse gas emissions by 2050 and gave authority to the Secretary of State to adjust the level of the target following the due process of consultation and analysis. These provisions provide an opportunity to adjust the target without having to amend or reopen the law itself and clearly provide the possible direction of travel for adjustment-towards increased ambition.

Figure 1 below outlines the key elements that should be considered in developing a climate change law based on the analysis of experiences of other countries.

Figure 1. Key elements to consider in the design of a climate law



Source: Averchenkova (2019), p. 77.

(5) Spain: the market for a Spanish Climate Change and Energy Transition Law

(5.1) Context

Within the EU, Spain is a climate hot spot (Guiot & Cramer, 2016) as well as the fifth-largest GHG emitter, contributing 8,98% to the EU-27's emissions in 2017 (Eurostat, 2019). According to Montoya, Manzano-Aguigliero & Aguilera (2014), Spain's renewable energy potential is significant. It has abundant renewable resources, in excess of its energy demand, making them Spain's key 'energy asset'. In terms of renewable technologies, Spain is the sixth largest producer of wind power globally, the fifth in terms of net wind installed capacity and the first in terms of the percentage of power produced from wind (IEA, 2019). As for solar photovoltaic (PV), Spain is the ninth largest producer globally and the sixth in terms of percentage of power produced by solar PV (*ibid*). Spain is also an energy dependent country, with 74% of its energy being imported. Moreover, Spain is the eighth largest importer of oil worldwide and the 10th largest gas importer (IEA, 2019).

Beyond Spain's contribution to international climate action through the EU's NDC, Spain's renewable energy sources (RES) and energy dependence signal its alignment of interests and values in supporting a low carbon transition and the supporting legislative framework that enables it. Spain's legislative and executive climate *acquis* for a low carbon transition includes nine climate laws, 29 climate policies –including the framework mitigation Strategy for Climate Change and Clean Energy and the Plan for Urgent Measures (2007), as well as the National Climate Change Adaptation Plan (2006), which was one of the first adaptation plans in the EU–. Spain also has 13 cases of climate litigation, with the majority of them involving the private sector acting against the national government on the number of allocated emission allowances (GRI, 2019). Spain does not, however, have a framework Climate Change and Energy Transition law and is yet to implement (as is the case with the rest of EU member states) its first Integrated National Energy and Climate Change Plan (INECP).

(5.2) Supply-side politics for a robust climate law

Supported by civil society,⁷ Spain's mixed Congress/Senate Commission on Climate Change recommended the adoption of a Climate Change Law in 2011. Four years later, at the COP21 in Paris, the former Prime Minister Mariano Rajoy first pledged that Spain would have such a law (Presidencia de Gobierno, 2015) if the conservative party (Partido Popular, PP) won the then upcoming elections. The government started working on the draft text of the Climate Change and Energy Transition Law (CC-ETL) in 2017, but the ousting of the conservative party in June 2018 thwarted its adoption. Nonetheless, a few days after the conservative government was out of office, the PP presented its proposal for the CC-ETL (BOCG, 2018). Later, Teresa Ribera, Minister for Ecological Transition under the socialist government from June 2018 onwards, commissioned a draft CC-ETL bill that was presented in February 2019 (Presidencia de Gobierno, 2019; MITECO,

⁷ Note that it was initially Friends of the Earth that demanded the adoption of a framework Climate Law in Spain. *Coalición Clima*, now known as *Alianza por el Clima* then formulated various proposals. See *Coalición por el Clima* (2011) and *Alianza por el Clima* (2017).

2019b). The far-left Unidas Podemos also submitted a proposal for a such a law in July 2019 (BOCG, 2019).

Other political parties, such as Ciudadanos (centre right) and VOX (far right) do not have detailed proposals for a climate law at the time of writing. While Ciudadanos included in its electoral programme for the general elections of 28 April 2019 its intention to promote a Climate Change Law (Ciudadanos, 2019), VOX did not mention climate change as such or the need for a law in its programme. VOX has publicly opposed climate action arguing that it amounts to 'climate totalitarianism', that the anthropogenic component of climate change is unclear and that 'obscure economic interests' drive proposals presented by the socialist party and Unidas Podemos (VOX, 2019a, 2019b). Its proposals do, however, include an Energy Plan to ensure Spain's energy independence (VOX, 2019b).

The above attests to both the interest in adopting a framework CC-ETL, given the three distinct legislative proposals, and the difficulty Spain has had in adopting it. A fragmented political landscape, with new parties and no clear majorities to form a stable government after the general elections that took place on 28 April 2019 and again on 10 November put on hold the adoption of a framework law. In this context the comparative analysis of political parties' support for key elements to be included and their concrete proposals for a climate change and energy transition law could help shed some light on Spain's potential energy transition scenarios and identify points of potential political convergence.

SEO/BirdLife, a Spanish environmental NGO, conducted a survey among political party representatives from Ciudadanos, PP, PSOE and Unidas Podemos in charge of energy and climate change, to understand their parties' support for several elements of a future framework CC-ETL (SEO/BirdLife, 2018). The key takeaways from the survey are that they agree on setting medium- (2030) and long-term (2050) emission reduction goals. The degree of ambition varies substantially, with Unidas Podemos being the most committed. While the parties in principle agree on having a ratchet-up mechanism, PP, Ciudadanos and PSOE only *partially agree* with the possibility of reviewing climate goals, carbon budgets or multi-annual plans after consulting with experts, provided a justification is given and only to raise ambition. The PSOE *partially agrees* on the need to adopt carbon budgets well in advance of their implementation (six to 10 years in advance) to both counteract the political economy of electoral cycles and to allow stakeholders to adapt and plan ahead for increasingly stringent budgets.

There is also agreement among all parties regarding the need to develop a pathway to Net Zero, although the PP disagrees on setting sectoral targets to achieve carbon neutrality by mid-century. The four parties analysed agree to the establishment of an independent advisory body, to the development of mandates for key agencies and to setting statutory timelines detailing when information and responses are to be provided and when decisions are to be taken.

Despite cross-party agreement regarding the need for parliamentary oversight as regards climate action, the conservative PP *disagreed* on the government's obligation to respond to the recommendations of the independent advisory body, which is considered

a key element of accountability in other jurisdictions, as discussed earlier. The survey also highlights cross-party agreement on the role of devolved administrations (regional and local governments) and the need to articulate stakeholder engagement mechanisms, arguably to foster social acceptance of increasingly stringent climate policies (Roberts, 2011). Cross-party agreement also exists as regards the need for analysing risks and planning adaptation, monitoring and reviewing progress, and disclosing information regarding exposure to physical and transition risks by listed companies, investors, insurers and asset managers.

Divergence across political parties is greater when analysing support for specific instruments. The PP, for instance, partially agrees on gradually phasing out fossil fuel subsidies and disagrees on the use of earmarked taxation on CO₂ emissions for the industry and power sectors included in the European Emissions Trading System (EU-ETS) to foster decarbonisation and innovation. The PP disagrees on using green taxes and the proceeds of ETS to finance the Just Transition Fund. Both PSOE and PP only partially agree to a coal phase-out by 2025, and the PP is the only party that implicitly supports the extension of Spanish nuclear power plants' useful lives.⁸

Although there are differences across political parties consulted by SEO/BirdLife (2018) the above analysis indicates convergence across parties regarding a significant number of elements of Spain's future Climate Change and Energy Transition Law. If a framework climate law were to be approved based on the above responses, most of the key elements of a robust climate law (Averchenkova, 2019) could be included, although the level of detail and effectiveness cannot be judged solely by these responses.

While the above climate barometer is interesting in providing high-level information on cross-party consensus about key elements of the law, concrete proposals for a low carbon transition were not elicited in the survey. In order to understand the potential array of decarbonisation pathways that Spain could embark on, the legislative proposals by the conservative PP and the far-left Unidas Podemos, as well as the draft Climate Change and Energy Transition Law of the previous PSOE government, are summarised in Figure 2.

Note that while Figure 2 below is not intended to provide an all-encompassing analysis of the decarbonisation proposals by the parties that have presented draft climate legislation proposals –including draft bills for PP (BOCG, 2018), UP (BOCG, 2019) and PSOE (MITECO, 2019a) and INECP prepared by the socialist government in 2019 (MITECO, 2019b) in draft form and updated in 2020 (MITECO, 2020)– it does provide a brief overview of parties' climate and energy goals. Note that the goals in the draft Climate Change and Energy Transition bill presented by the socialist government in 2019 would become legally binding whereas the goals enshrined in the draft INECP (MITECO, 2019b) and the updated INECP (MITECO, 2020) would be achieved if the 'target scenario' used in the analysis were to materialise.

⁸ Note that the SEO/BirdLife barometer was not answered by the representatives of VOX. The far-right party has however publicly said it would support the extension of Spain's nuclear power plants' useful lives, even if no explicit support for the measure is included in its election programmes.

Figure 2. Key elements of potential decarbonisation pathways for Spain according to submitted proposals⁹ and draft bill¹⁰

	Unidas Podemos (UP)		Partido Socialista Obrero Español (PSOE)		Partido Popular (PP)	
	2030	2050	2030	2050	2030	2050
Economy-wide GHG emission reduction goals	35% (1990)	95% (1990)	>20% (1990)-draft bill 21% - draft INECP 23% (1990)-updated INECP	90% (1990)	26% for Non-ETS	≥80%
ETS reduction targets	N/A	N/A	60% (2005) – draft INECP, 61% - updated INECP	N/A	Aligned with EU goals	N/A
Non-ETS reduction targets	26% (2005)		38% (2005) – draft INECP 39% (2005)-updated INECP	N/A	26% (2005)	N/A
Renewables targets (energy; % of final energy consumption)	45%	100%	>35% - draft bill 42% - draft INECP, updated INECP	N/A	Determined by INECP and aligned with EU goals	N/A
Renewables targets (electricity; % of final energy consumption)	80%	100% (by 2045 or earlier)	>70% - draft bill 74% - draft INECP, updated INECP	100%	> than in 2020	> than in 2030
Electric mobility (% or number of EVs in new sales)	70% of new sales	100% of new sales (by 2040)	5 million electric vehicles- draft INECP and updated INECP	100% of new sales (by 2040)	N/A	N/A
Energy efficiency	≥ 40%	≥ 50%	35% - draft bill 39,6% - draft INECP 39,5% - updated INECP	N/A	Determined by INECP and aligned with EU goals	N/A

Source: Lilliestam et al. (2019),¹¹ MITECO (2019a, 2019b) and MITECO (2020).

Figure 2 depicts three distinct and partially overlapping decarbonisation pathways. The proposal of the former socialist government's more state-centred pathway envisages measures for a fully decarbonised economy by mid-century. It errs on the side of using command-and-control instruments in terms of nuclear phase-out, banning sales and registration of internal combustion engine vehicles (ICEs) by 2040, deploying electric vehicle (EV) chargers, mandatory renovations of public buildings, etc. However, it allows the market to decide, among other things, when coal phase-out will occur, given EU legislation on state aid and the expected carbon price in 2030. Even though its GHG emission reduction targets are less ambitious than those of Unidas Podemos, net zero is the PSOE's ultimate decarbonisation goal by mid-century, in line with the EU's expected 2050 goal.

Unidas Podemos (UP) has the most ambitious 2030 and 2050 GHG emission reduction goals and RES penetration rates of the three parties that have presented a legislative CC-ETL proposal (or draft bill). They are, however, less ambitious as regards non-ETS sectors' GHG emission reductions by 2030. Their approach to deep decarbonisation could be classed as command-and-control-*cum*-grassroots. The latter is based on the fact that UP's proposal seeks to empower citizens and local communities as the key agents in the transition to a carbon neutral development model based on small-scale and community-owned power systems. They advocate rapid coal and nuclear phase-outs and support the use of market-pull (subsidies) and technology-push instruments (technology R&D programmes) as levers for the low carbon transition.

The PP's GHG decarbonisation goals are the least ambitious of the three analysed legislative proposals. The conservative party's approach to a lower carbon development model is overall a market-based one. The PP pledges to abide by Spain's decarbonisation commitments in alignment with EU goals. The PP's climate legislation proposal includes some high-level and economy-wide goals but allows, to a large extent, market forces to fulfil those commitments with the aid of some market-based instruments such as technology neutral auctions.

Political parties in Spain will need to analyse whether their climate goals are aligned with the expected increase in the EU's mitigation ambition by 2030¹² and with the temperature goals set in the Paris Agreement. Parties should also reflect about whether climate commitments can be considered to be fair given that the weight of Spain's GHG emissions will increase in percentage terms after Brexit (EU-27) (EC, 2019).

⁹ The Integrated Energy and Climate Change Programme (INECP) in the PSOE's case. The updated (2020) version of the document is available at: https://www.miteco.gob.es/images/es/pniec_2021-2030_borradoractualizado_tcm30-506491.pdf.

¹⁰ Note that the baseline year is indicated in brackets.

¹¹ The data contained in Figure 2 is based on party proposals, on the draft bill presented by the acting government (PSOE) and on Spain's draft Integrated Energy and Climate Change Plan (INECP) as submitted to the European Commission on 22 February 2019.

¹² The EU is expected to adopt higher mitigation goals under the new Commission. The current 40% GHG emission reductions from 1990 levels by 2030 is expected to increase to 50%-55% (EC, 2019).

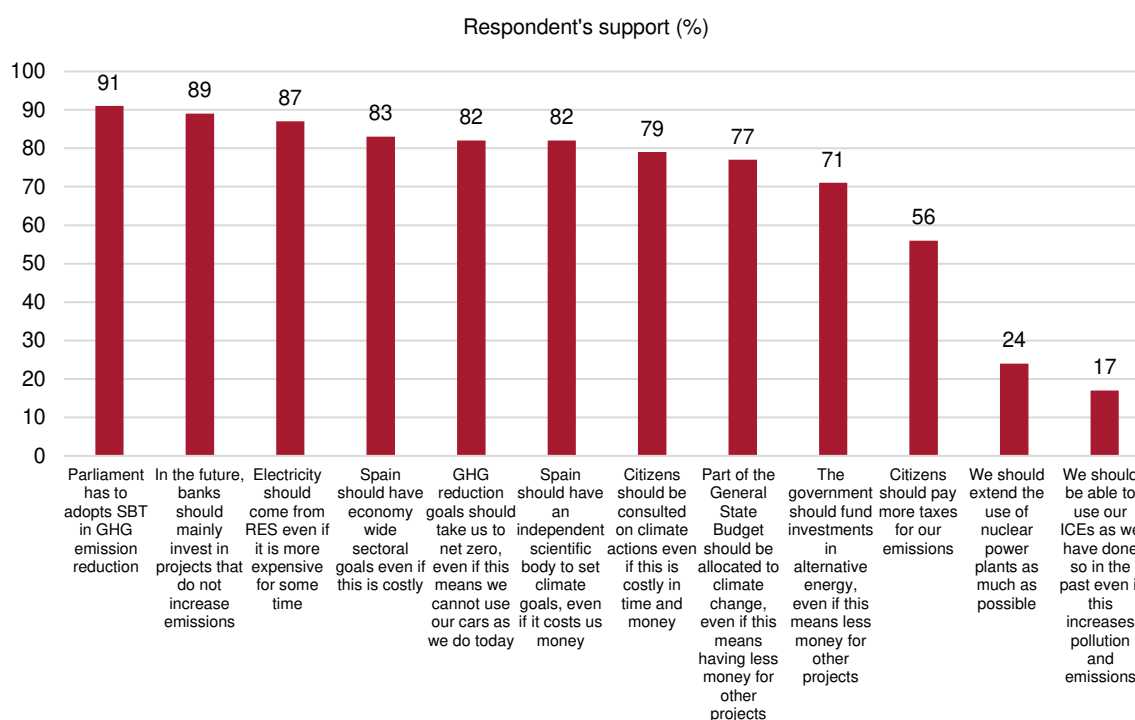
(5.3) Demand-side politics: mind the concern-intention gap

In what follows we briefly review the key concerns, demands and support for different elements that could be included in the future Climate Change and Energy Transition Law (CC-ETL) and intentions as regards willingness to pay to mitigate climate change by Spanish citizens. These elements arguably conform key demand-side or supporting factors of climate action (Börzel, 2000; Roberts, 2011). The analysis is based, among other sources, on the results of a telephone survey conducted in spring 2019 by the Elcano Royal Institute with a sample of 1,000 citizens aged over 18, using quota sampling for age, gender and region (Lázaro Touza, González Enríquez & Escribano Francés, 2019).

Spanish citizens are –overall– well aware that climate change is unequivocal, that its anthropogenic component is clear and that it is already affecting socioeconomic and natural systems alike, with only 3% of Elcano’s survey respondents denying the existence of climate change. This applies across the political spectrum, albeit more so among left-leaning respondents (*ibid.*). Additionally, over 81% of interviewees believe current climate action is insufficient both internationally and nationally to effectively address the problem. As such, it is not surprising that 93% of respondents said that Spain should have a Climate Change and Energy Transition Law. This result is consistent with other recent polling exercises (EC, 2019; Pushter & Huang, 2019; Poortinga *et al.*, 2018) and with the relatively high pro-ecological world view shown by Spanish citizens (Lázaro Touza, González Enríquez & Escribano Francés, 2019) as measured using Dunlap Riley’s New Ecological Paradigm scale (NEP scale) (Dunlap, 2000). In fact, Spain has a pro-ecological world view similar to that of other developed Western countries (Lázaro Touza, Gonzalez Enríquez & Escribano Francés, 2019).

It is encouraging to see that according to the Elcano survey there is wide citizen support for some key elements of robust framework climate laws. For instance, there is ample support for the existence of an independent advisory body *à la* UK that would suggest climate targets (eg, carbon budgets) for the government to adopt. Given that Spanish citizens’ level of trust in politicians is low according to Centro de Investigaciones Sociológicas (CIS, 2018), it is unsurprising that the Elcano survey respondents support the idea that the government should adopt the targets put forward by scientists, ie, science-based targets. There is also strong support for a net zero target, even if it means changing socially entrenched habits such as the unfettered use of private vehicles. Spanish citizens also overwhelmingly support (89%) the alignment of financial flows with climate goals, and that banks should invest in projects that do not increase emissions. Support wanes when survey respondents are asked about whether they would be willing to pay a higher annual road tax in order to internalise the effect of GHG emissions (only 56% of interviewees would support this measure). Spanish citizens want to be consulted on the measures to be taken to curb climate change but those with higher education are less enthusiastic about public consultation processes. Figure 3 below shows the support for different elements, instruments and processes that could be included in Spain’s future Climate Change and Energy Transition Law.

Figure 3. Agreement with the following statements (in %; N = 934 –those who agree Spain should have a Climate Change and Energy Transition Law–)



Source: Lázaro Touza, González Enríquez & Escribano Francés (2019), p. 50.

While the above support for key elements of robust climate laws is encouraging, three caveats should be noted. First, Spanish citizens' perception of their own responsibility for causing climate change is limited. Companies, the government and other countries are perceived as the key institutions responsible for causing climate change, signalling limited personal engagement. Secondly, surveys that ask Spanish citizens about issues that affect Spain or the respondents themselves, rather than issues that pose a threat to the world, never show the environment or climate change at the top of their list of concerns (CIS, 2019). This is also reflected politically as green parties in the Spanish parliament have had a very limited presence, leaving left-wing parties to show a greater concern for the environment *versus* centre-right, right-wing and far-right parties. Thirdly, as regards interviewees' intentions, despite the fact that only 17% of the sampled population supports using Internal Combustion Engine vehicles (ICEs) as they have done in the past, the percentage of respondents who oppose paying a higher road tax to internalise the externality caused by private ICE vehicle car use is large, at 44% of respondents who own a vehicle, showing limited personal involvement and a concern-intention gap that would arguably be amplified when requiring citizens to act..

(6) Conclusions: designing framework legislation on climate change; balancing ambition and realism

Urgency of action on climate change requires the adoption of comprehensive national frameworks that set the long-term direction for decarbonisation and climate resilience in line with the objectives of the Paris Agreement, and the key mechanisms for delivering decarbonisation targets. Adopting such a framework into law in 2020 (in time for the Global Stocktake that requires countries to ratchet up their NDCs) would place Spain among the leaders in the EU and internationally. The adoption of the CC-ETL would also help consolidate and maintain political buy-in for climate policies over time in the face of future changes in the government while helping accelerate energy transition.

Given the urgency and the tight timelines in the design of a framework climate and energy transition law, it is important to set realistic expectations and strike a careful balance between the level of complexity, prescription and flexibility and to ensure *inclusive and transparent stakeholder consultation processes* to gain acceptance and buy-in of the legislation from the private sector, civil society, devolved governments, sectoral agencies and the public. As evidenced by the experiences in other countries, to be effective the stakeholder consultation process needs to be well structured with clear objectives and a plan for how its outputs feed into the legislative process.

To be consistent with the objectives of the Paris Agreement, climate legislation should contain a long-term emission reduction target by 2050, which should be consistent with the objectives of achieving global net zero emission by the end of the century and with temperature goals of keeping warming below 1.5-2°C. In this context, it is important for the legislation to define the timeline for coming to net zero and to set mid-term emission reduction targets, with provisions for progressive ratcheting of ambition. Carbon budgets have shown to be an effective tool in this context.

The law should seek to empower and enable subnational action and promote a coherent approach in terms of the core elements (such as alignment with the overall target and strategic priorities and common methodologies for measuring and assessing progress), while leaving enough flexibility for devolved administrations to take ownership and design their own adaptation and mitigation policies or actions, in particular in countries like Spain with a high degree of devolution. In this context, Spain should consider the approach adopted by the UK of sharing a common analytical resource, in the form of the independent advisory body, between the national and devolved administrations, as well as the establishment of targeted financial instruments to support implementation at the subnational level.

Government accountability for implementing the law could be strengthened through regular assessment and reporting requirements and direct Parliamentary oversight. Independent advisory bodies on climate change and/or energy transition have been shown to have an essential role for ensuring quality in policy design, accountability in policy implementation and strengthening political commitment to climate policy. To be effective, the provisions for the independent advisory body on climate change or energy transition should define a clear mandate for it to regularly assess government policy proposals and implementation progress, assign a dedicated budget, ensure high level of

expertise and require the government to respond to the body's assessments and recommendations.

The underlying agreement between three of the largest political parties in Spain regarding the need to adopt a Climate Change and Energy Transition Law offers a good basis for advancing the legislative process. However, differences across parties at the level of ambition and detail, the type of preferred policy approaches and instruments, as well as the asymmetric importance awarded by parties to the CC-ETL, means further consensus-building efforts will be required to adopt such a law in Spain. On the demand side, despite concern regarding climate change and overall support for action by Spanish citizens, doubts remain regarding their support for a law –and an energy transition framework– that might require a green fiscal reform, among other measures. Limited acknowledgement of respondents' own responsibility in causing climate change, and under half of respondents stating they would not be willing to pay a higher annual road tax caution against an overly optimistic reading of Elcano's survey results. Closing the gap between concern, intentions and actions would arguably be a must in the political agenda if Spain aspires to lead the fight against climate change.

The hosting of COP 25 in Spain could boost the political appetite for adopting the law but implementing a robust and Paris-compatible law will require leadership, engagement, cross-party consensus and careful policy design to avoid a social backlash.

(7) Annex: cross-party agreement on elements of Spain's Climate Change and Energy Transition Law

Figure 4. Degree of political agreement in Spain on key elements to consider when developing framework climate laws

Element/instrument/process	Responses across the largest national political parties 2 = agree; 1 = partially agree; -1 = disagree			
	<i>Ciudadanos</i>	<i>Partido Popular</i>	<i>PSOE</i>	<i>Unidas Podemos</i>
Emission reduction goals by 2030	2	2	2	2
Emission reduction goals by 2050	2	2	2	2
Ratchet-up mechanism or carbon budgets	2 (4)	2 (5)	2 (6)	2
Pathway to net zero by 2050	2	2	2	2
Independent advisory body	2	2	2	2
Mandates for key agencies and statutory timelines	2	2	2	2
Parliamentary oversight	2	2 (7)	2	2
Stakeholder engagement mechanism	2	2	2	2
The role of devolved administrations (regional and local government)	2	2	2	2
Policy instruments or a mandate to develop them				
Alignment of State Budget, fiscal regime and financial instruments with decarbonisation goals	2	2	2	2
Gradual phase-out of subsidies for fossil fuels	2	1	2	2
Earmarked taxation on CO ₂ emissions for the industry and power sectors, included in the EU-ETS, to foster decarbonisation and innovation	2	-1	2	2
Just Transition Fund and Just Transition Council	2	2	1	2
Funding for the Just Transition Fund from green taxes and ETS	2	-1	2	2
Coal phase-out by 2025	2	1	1	2
Nuclear phase-out at the end of useful life	2	1	2	2
Risk assessment and adaptation planning	2	2	2	2

Element/instrument/process	Responses across the largest national political parties 2 = agree; 1 = partially agree; -1 = disagree			
	<i>Ciudadanos</i>	<i>Partido Popular</i>	<i>PSOE</i>	<i>Unidas Podemos</i>
Sectoral targets towards net zero by 2050				
Monitoring and review of progress	2	2	2	2
Risk disclosure for listed companies, investors, insurers and asset managers	2	2	2	2

Source: the authors based on Averchenkova (2019), p. 77, and SEO/BirdLife (2018).

Notes for Figure 4:

(1) For a detailed analysis see Lilliestam *et al.* (2019).

(2) The baseline year is indicated in brackets.

(3) Data are based on party proposals, on the draft bill presented by the then acting government (PSOE), on Spain's draft INECP as submitted to the European Commission on 22 February 2019 and on the updated INECP presented on 20 January 2020. See https://www.miteco.gob.es/images/es/pniec_2021-2030_borradoractualizado_tcm30-506491.pdf.

(4) The liberal *Ciudadanos* *partly agrees* with only allowing the review of climate goals, carbon budgets or multi-annual plans after consulting with experts, provided a justification is provided and only to raise the level ambition.

(5) The conservative PP *partly agrees* with only allowing the review of climate goals, carbon budgets or multi-annual plans after consulting with experts, provided a justification is provided and only to raise the level of ambition.

(6) The socialist PSOE *partly agrees* with the need to adopt carbon budgets well in advance of their implementation (six to 10 years before) to both counteract the political economy of electoral cycles and to allow stakeholders to adapt and plan ahead for increasingly stringent budgets. The PSOE also *partly agrees* with only allowing the review of climate goals, carbon budgets or multi-annual plans after consulting with experts, provided a justification is provided and only to raise the level of ambition.

(7) The conservative PP *disagrees* with the government's obligation to respond to the recommendations of the Independent Advisory Body, which is considered a key element of accountability in other jurisdictions (eg, as in the UK Climate Change Act).

(8) In SEO/BirdLife (2018) there was no specific question regarding the degree of agreement of political parties with the availability of predictable funding to implement the law.

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