

GERMANY

Case study on multi-level climate governance

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Germany

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Introduction

Germany looks back on a tradition of independent, subnational governments that dates back to the territorially fragmented governance system of the Holy Roman Empire from the Early Middle Ages. When the empire dissolved in the early 19th century, the German confederation still consisted of a fairly large number of independent states. To catch-up with development, promote trade and industrialisation, Germany rather suffered from too little than from too much centralisation (Fuhr *et al.* 2018). From 1807 onwards, a series of reforms created a centralised administration, joint rules and a common market. Importantly, parallel to functional centralisation, the reforms also aimed at involving citizens in local public affairs and granting local authorities the right to local self-government – therewith laying the foundations for today's participatory local government system. With exceptions, particularly during the Nazi dictatorship (1933-45), German regional and local governments have possessed autonomy for many centuries. Since the re-unification of East and West Germany in 1990, the Federal Republic of Germany consists of 16 partly-sovereign states (*Länder*) and about 11.000 local governments.¹

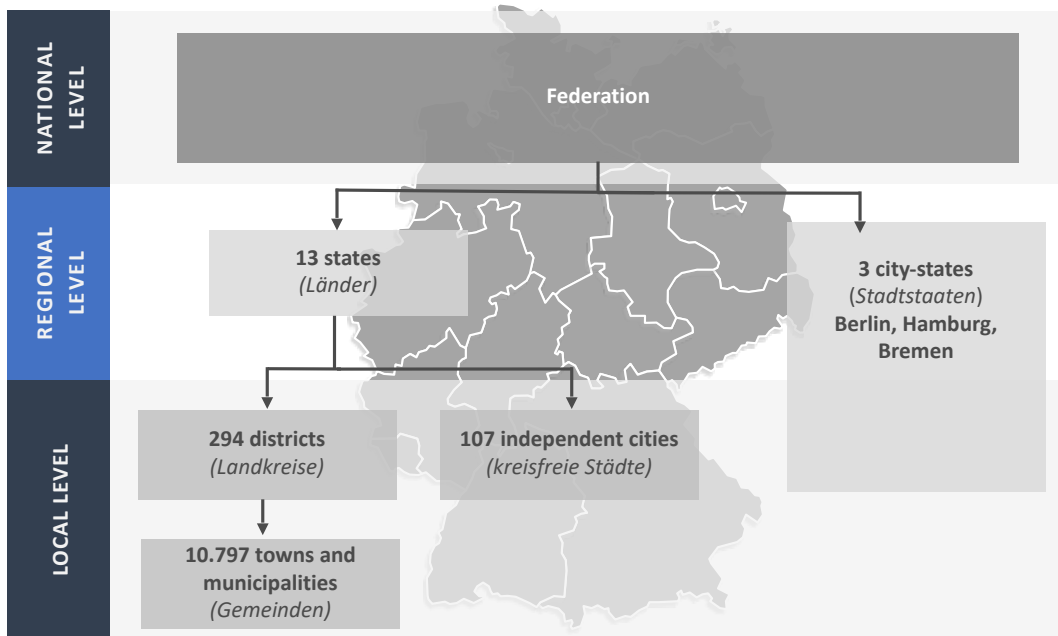
¹ Since the 1990s the total number of local governments has decreased by about one third, mainly due to merger policies in eastern Germany. überarbeitet te auch die Quellen im Text verlinken?

1.1 Administrative structure

Federalism, subsidiarity and local self-government characterise the German administrative system and define the country's opportunities and challenges for coordinating climate change policy and action across government levels.

FIGURE 1

ADMINISTRATIVE STRUCTURE IN GERMANY



German federalism, set up by the 1949 Basic Law (with reforms implemented in 2006 and 2009), is based on the **principle of vertical separation of powers**. State power is shared between the national federal government and the regional *Länder* governments. Local governments form the lowest administrative level and are part of and subject to their respective *Land*. The *Länder* level consists of 13 territorial and three city states (Berlin, Hamburg and Bremen). The local level is made up of two tiers. The upper level consists of 107 independent cities (district-free cities; *kreisfreie Städte*) and 294 districts (or counties; *Landkreise*). The lower level consists of 10,797 municipalities and towns (*Gemeinden*), which are part of a district ([Statistisches Bundesamt 2020a](#)). Beyond these three types of local governments (municipalities, independent cities and districts), we also find different forms of local government associations in some *Länder*.

1.2 Subnational autonomy & responsibilities

The **principle of subsidiarity**, guaranteed in Article 28 (2) of the Basic Law, plays an important role in subnational autonomy. Following this principle, **all legislative and administrative functions are assigned to the *Länder***. Their far reaching competencies include for examples education, regional economic development, culture, public welfare and health, and – importantly – local government affairs. **The power to regulate local governments lies exclusively with the *Länder*, the federal level cannot legislate local government issues or transfer tasks directly to municipalities.**

There are, however, exceptions where the federal government retains exclusive responsibility (for example defence, foreign affairs, customs). Additionally, there are policy areas where federal

and *Länder* governments share powers, where their powers compete and areas in which *Länder* legislations may deviate from federal legislation. Legislation on energy², environment and climate change is a shared function, which leaves certain leeway for the *Länder* to regulate issues at regional level. However, **federal law always prevails over state law**. In practice, the general rule of thumb is that basic legal provisions are set at the federal level and complemented by individual *Länder* law. The *Länder* therewith have limited exclusive legislative authority of their own. Yet, federal legislation has to be approved by *Länder* representative via the second chamber (*Bundesrat*).

Local autonomy is guaranteed by Article 28 (2) of the Basic Law. It grants local governments the **right to local self-government** (*kommunales Selbstverwaltungsrecht*), according to which LGs have the right to manage their own affairs under their own responsibility within the limits set by the law.

Local government tasks are shared between the district and municipalities within that district. The district thereby typically performs services that cannot be provided by a municipality alone. Independent cities perform all local tasks on their own. Local governments vary a lot in terms of their population size and because their structure and are regulated by the *Länder*, there is substantial variation between regions. However, as far as their legal status is concerned, local tasks are either **voluntary** or **mandatory** and they fall under the local governments' own self-governing responsibility or they are delegated to them by the *Land*. In the case of voluntary self-governing tasks, the LG can decide *whether* and *how* it wants to perform the task (i.e. social and cultural activities; economic development; local public transport). Mandatory self-government tasks result from law and have to be performed (i.e. delivery of basic services), it is however up to the local authority *how* the task is fulfilled. The *Länder* have a financial oversight function for cities and districts and they supervise, if mandatory tasks are fulfilled. Districts, in turn, have an oversight function for municipalities.

Climate change mitigation and adaptation have to a certain extend been integrated into federal and *Länder* legal frameworks, which in turn influence LG's scope of action (i.e. building codes), yet they do not constitute mandatory municipal tasks. The question, whether local climate action should become a mandatory task for LG's, has sparked extensive debate (see section 1.4).

1.3 Distribution of climate and energy related competences between levels of government

Germany's federal governance structure and its vertical division of powers and functions open up broad scope of action for regional and local governments to become active in climate change planning and action. Both levels have responsibilities for key climate-relevant competencies.

TABLE 1

DISTRIBUTION OF CLIMATE AND ENERGY RELATED COMPETENCES BETWEEN LEVELS OF GOVERNMENT (NEXT PAGE)

² Nuclear energy is an exception, it falls under the exclusive responsibility of the federal level.

	LOCAL	REGIONAL	NATIONAL
	11.198 local governments (incl. 294 districts, 107 independent cities, 10.797 municipalities)	16 states (Länder)	Federal government
ENERGY	<ul style="list-style-type: none"> • Public energy supply • Municipal energy management. • Expansion of renewable energies, location development for RNE, development of district heating. • Energy efficiency measures and energetic refurbishment of public buildings. • Support for energetic neighbourhood refurbishment. 	<ul style="list-style-type: none"> • Regional energy transition strategies and legislation. • Support programmes to expand energy efficiency and renewable energy. • Promote energy efficiency/ renewable energy through building regulations; land-use planning and regulations; local government regulations (i.e. guidelines for municipalities) • District heating regulations and planning. • Regulations on municipal energy management. 	<ul style="list-style-type: none"> • Legislation on energy generation; transmission, storage, distribution, security and taxation; labelling of energy consumption; energy saving guidelines and standards; legal framework for electricity and gas industry. • Regulation of feed-in tariffs for renewable energy • Expansion and management of national energy network (Federal Network Agency). • Programmes and grant schemes (some run by the state-owned development bank KfW) and subsidies to support research, development and project implementation for energy efficiency.
TRANSPORT	<ul style="list-style-type: none"> • Traffic management • Planning of local mobility infrastructure (e.g. foot and bike lanes) • Construction and maintenance of local roads • Local public transport • E-mobility infrastructure, car/ bike sharing concepts • School transportation 	<ul style="list-style-type: none"> • Regional transport planning • Construction and maintenance of regional roads • Management of public transport, regional waterways, ports 	<ul style="list-style-type: none"> • National transport planning and legislation • Construction and maintenance of federal roads • Management of federal railways, waterways, air traffic management • Strategies and support programmes to decarbonise transport sector and promote • e-mobility
URBAN & SPATIAL PLANNING	<ul style="list-style-type: none"> • Local land-use and spatial development planning (Flächennutzungspläne, Bebauungspläne). • Building permits, supervision of local constructions • Appropriate housing provision, social housing construction • Construction and management of public green spaces, parks, cemeteries. 	<ul style="list-style-type: none"> • Regional land-use and spatial development planning and regulations (e.g. Raumordnungspläne) • Building regulations (incl. energy efficiency standards) • Legislation on and financing of social housing • Funding instruments for urban development: 	<ul style="list-style-type: none"> • Legislation on construction and spatial planning (Bundesbaugesetzbuch, Bundesraumordnungsgesetz) • Spatial development planning for cross-Länder issues, i.e. flood protection • Funding instruments to support agriculture, forestry, rural development, coastline management and flood protection (in cooperation with the Länder) • Strategy on climate friendly construction and housing • Funding instruments and tax incentives for (social) housing constructions and urban development (i.e. energetic refurbishment, urban redevelopment, urban green spaces).

	LOCAL	REGIONAL	NATIONAL
WATER, WASTE & SANITATION	<ul style="list-style-type: none"> • Public drinking water supply • Wastewater management • Waste management, reduction, collection, recycling, energetic use • Monitoring and management of local water bodies. 	<ul style="list-style-type: none"> • Regulations on water management • Monitoring and management of regional water bodies, coastal water management • Waste management regulations. 	<ul style="list-style-type: none"> • Legislation on water management • Regulations for water protection • Management of federal water ways, exclusive economic zone at high sea • Funding for water protection programmes (i.e. fighting marine litter, renaturation of rivers etc.) • Legislation on waste management, incl. circular waste management act.
ECONOMIC DEVELOPMENT	<ul style="list-style-type: none"> • Support for local economic development i.e. acquisition of new businesses, provision of commercial and industrial sites and infrastructure, city marketing etc. • Advice and support for local companies regarding energy efficiency/ sustainability 	<ul style="list-style-type: none"> • Support for regional economic development (advisory support and/ or financial support). Location marketing. 	<ul style="list-style-type: none"> • Support for regional economic development (in cooperation with the Länder) • Location marketing • Government subsidies, economic stimulus packages, economic aid
ENVIRONMENT & CLIMATE PROTECTION	<ul style="list-style-type: none"> • Management of local protected areas and natural resources • Emission control, incl. air pollution • Local climate change planning and management/ mainstreaming of climate change • Public relations, awareness raising and advisory services • Sustainable public procurement • Providing funding for climate/ environmental projects from citizens, private/ non-profit organisations and etc. 	<ul style="list-style-type: none"> • Management of regional protected areas and natural resources • Regional planning and regulations on environmental protection; landscape management; soil conservation; climate change (9 Länder have enacted a climate change law) • Public relations, awareness raising and advisory services • Promotion of education for sustainable development • Supervision of local air pollution control, environmental monitoring. • Sustainable public procurement. 	<ul style="list-style-type: none"> • Legislation on imission control; environmental protection and biodiversity; soil conservation; climate change mitigation • Management of federal protected areas and natural resources • Legislation on emissions trading • European and international climate policy • National strategies and action plans on biodiversity and environmental protection; climate chance adaptation and mitigation • Funding programmes, i.e. Energy and Climate Fund; National Climate Initiative.
BUDGET 2019 (IN MILLION €) ⁵	276 726	417 203	397 003

⁵ Statistisches Bundesamt 2020b.

1.4 Local government budgets

Local governments are legally granted fiscal autonomy. They can raise local taxes and have budgeting rights but are closely supervised by *Länder* authorities. The Basic Law defines detailed fiscal provisions, including intergovernmental transfers and equalisation principles between the federal and *Länder* governments. The *Länder* are in turn responsible for regulating finances of “their” local governments and have put in place individual municipal financial equalisation systems.

Municipalities and independent cities receive shares of general government revenue and grant allocations from the *Land* (there is no direct federal financial transfers to local governments). Their own revenues consist mainly of the local business and property tax and user charges and fees paid by local citizens and businesses for public services. Districts are financed by *Länder* grants and contributions from their municipalities. They do not levy own taxes.

Since the 2008/09 financial crisis, there has been a robust growth of local tax revenues and annual budgets have recorded surpluses ([Geißler et al. 2019](#)). However, local governments are in charge of a wide range of services and costs for public welfare have been on the rise. **Additionally, while local governments implement about 60% of public investments, they have built up a massive investment backlog over the past decades** ([Ibid](#): 105).³ At the same time, a constitutional reform implemented a “debt brake rule” that requires balanced structural budgets from 2020 at federal and *Länder* level. The *Länder* are in turn requiring local governments to balance their budgets and restrict borrowing, limiting financial and administrative capacities for climate action measures.

Overall, we can see **growing economic disparities between municipalities and regions**. Local public investments in economically strong regions (i.e. Bavaria, Baden-Württemberg) are considerably higher than in the structurally weak regions.⁴ Many municipalities find themselves in long-term budget and debt crisis and can barely implement their mandatory tasks with the available budget.⁵ Additionally, **roughly a quarter of all local authorities has to operate under budgetary safeguarding concepts**, which subject them to severe budgeting constraints and strict supervision from state authorities ([Heinbach et al. 2020](#)). These constraints particularly affects the implementation of voluntary local government tasks, such as local climate action, because they are subject to higher-level approval.

The question, whether local climate action should become a mandatory task for LG’s, has sparked extensive debate that is closely linked to questions about financing climate action. At the moment, many local climate change projects are implemented with financial support of regional and federal support programmes (see section 4.2). Such support programmes are only available for voluntary tasks. Once a municipal mandate is defined as mandatory, financing becomes an issue of intergovernmental fiscal transfers.

³ According to a survey by the German Institute of Urban Affairs (Difu) on behalf of the KfW Bank, municipalities estimate their investment backlog at 147 billion euros ([Krone & Scheller 2020](#)).

⁴ Municipalities in economically strong Bavaria currently invest more than three times as much per capita as those in Mecklenburg-Western Pomerania ([Arnold et al. 2015](#)).

⁵ The recent corona pandemic is expected to exacerbate existing strains on local government’s budgets and therewith on financing local climate actions. It remains to be seen to what extent higher-level grants and economic stimulus packages will be able to cushion these impacts.

1.5 Green local government budgets

There are currently no obligatory mechanisms to check the climate compatibility of local government spending. However, there are municipalities who have decided to check their actions and spending against climate compatibility criteria. An example are some of the 70 cities who recently passed local resolutions to declare a “climate emergency” ([Wikipedia](#) 2020, [Hirschl and Pfeifer](#) 2019).

The German National Sustainable Development Strategy underlines the importance of sustainable public procurement ([The Federal Government](#) 2018) and *Länder* regulations do include binding criteria for sustainable public procurement processes for municipalities. Many municipalities also choose to adopt more ambitious sustainable procurement procedures, i.e. some are certified according to the Eco Management and Audit Scheme ([Hermann, et al.](#) 2019). To date, there is no data available on the share of sustainable procurement in public spending at different government levels. However, the Ministry of Economic Affairs and the Federal Statistical Office are currently establishing national procurement statistics, which aim to generally measure the public sector’s overall spending as well as the share of sustainable procurement ([The Federal Government](#) 2018: 43).

The German divestment movement is still in its infancy. There are currently 12 cities and districts that have decided to divest from fossil and energy intensive business models ([Gloger et al.](#) 2020)

2. Germany’s climate change policy framework

2.1 Federal Climate Change Policies

With its first climate change strategy adopted in the early 1990s, Germany looks back on almost 30 years of climate change policies. Today, Germany’s long term emission reduction goals and climate action priorities are defined by the [Climate Action Programme 2020](#) (2014), the [Climate Action Plan 2050](#) (2016) and the [Federal Climate Change Act](#) (2019).

The national policy framework aims to enable Germany to reach its GHG emission reduction goals as well as guarantee compliance with European climate mitigation goals. The Climate Change Act sets the goal to reduce GHG emissions by at least 55% by 2030 compared to 1990 and defines GHG neutrality by 2050 as a long-term goal. The Act defines annual sectoral emission budgets and assigns responsibility for compliance to the respective federal ministries. Monitoring takes place through an annual climate action report and emission projections every two years, starting in 2021.

The Act’s consideration requirement (*Berücksichtigungsgebot*) stipulates that all public authorities must “give due consideration to the purpose of this Act and to the targets set for its implementation” ([BMU 2020](#): section 13 (1)). It is however explicitly stated that this requirement does not affect the powers of the *Länder* and municipalities to determine how they organise compliance within their respective areas of responsibility” (Ibid.). Section 14 touches upon the cooperation between the federation and the *Länder*. It particularly ensures that the *Länder* may enact their own legislation on climate change and that existing *Länder* legislation on climate change will continue to apply (as long as it is compatible with federal law).

Additionally, the Act states that national climate programmes (which serve to implement the national climate action plan) will be developed in consultation with *Länder* and LG’s – along with other private and civil society actors (section 9 (3)), and that “the Federation and the *Länder* shall

cooperate in an appropriate form in order to achieve the objectives of this Act" (section 14 (2)). This has to date not been specified further.

In a similar vein, the Climate Action Plan 2050, emphasises that climate action will only be successful if implemented at all levels of government and sectors of society. A **section on municipal climate protection** in the strategy acknowledges that many cities and municipalities do implement local climate actions, yet it is not self-evident that LG's do integrate climate change into their local tasks. The federal level therefore aims to "examine how regional and local authorities can successfully be persuaded to accord greater importance to climate action and how the activities of those authorities can be reinforced" (BMU 2016: 11). The strategy update is supposed to be accompanied by a "social discourse process" involving subnational governments, which still needs to take shape.

Overall, **Germany's national climate policy framework primarily defines roles and responsibilities of sectors with less focus on actors at different levels of government.** Neither the national climate plan nor the Act set conditions for harmonising climate targets, plans and actions across government levels, nor do they set up joint reporting requirements for *Länder* or LGs. In fact, emission reduction goals adopted by *Länder* or LGs on a voluntary basis, tend to surpass ambitions of national climate policies.

Next to strategies and regulations that specifically address climate change, Germany has a broad mix of **sector specific instruments** that shape climate action across levels of government. Central to Germany's climate mitigation policies is of course its well-known **energy transition process** (*Energiewende*). Its central instrument is the Renewable Energy Act (EEG), which first came into force in 2000 and has since been continuously updated.⁶ The aim of the EEG is to increase the share of renewable energies in the electricity supply to at least 80 percent by 2050. Additional legal instruments and strategies support the implementation of the *Energiewende*, i.e. the Energy Saving Act, the Energy Saving Ordinance, the National Energy Efficiency Action Plan (based on the EU Energy Efficiency Directive and the EU Directive on the Energy Performance of Buildings) (Umweltbundesamt 2020). These instruments set standards for public and private energy producers and for energy efficiency – and are hence relevant for i.e. decentralised energy production and municipal buildings. In addition, the federal level has set up dedicated financing mechanisms to support the uptake of renewable energy sources and energy efficiency measures in LGs (administered by the Federal Ministry for Economic Affairs and Energy (BMWi), see section 4).

In addition, federal urban planning policies (esp. the federal building code, *Baugesetzbuch*) provide a framework that allows municipalities to implement climate change mitigation and adaptation actions by integrating them in their urban planning instruments (land use and development plans). On that basis, municipalities can direct their urban/ rural development practices on a climate-compatible path. Yet, the federal building code remains rather vague: statements such as "climate protection must be taken into account" and "sustainable urban development must be promoted", do in fact not set specific requirements for local implementation (Brasche 2018).

The Electric Mobility Act sets further incentives for climate friendly consumption and it gives cities and municipalities the possibility to create privileges for electric vehicles (see also Climate Chance [case study on Transport in Germany](#)). A Draft law of 2020 plans to significantly expand the provision of charging and pipeline infrastructure in residential and non-residential buildings with larger parking spaces ([Die Bundesregierung 2020b](#)).

⁶ The predecessor of the EEG was already adopted in 1990 and regulated the feed-in of renewable electricity into the public grid (considered the first act of its kind worldwide).

Overall, German national climate policy mostly relies on sector specific instruments and specific funding and support programmes to promote climate actions of local governments (see section 4 for the latter). As policy implementation mainly lies with *Länder* and local governments, the national legal framework clearly shapes subnational energy and climate actions (i.e. the energy saving act, the federal building code etc.). Further research is currently underway to define how climate change action can be better integrated into mandatory LG tasks and what changes in federal and *Länder* regulations can leverage municipal emission reductions (i.e. by the [ifeu – Institut für Energie- und Umweltforschung Heidelberg](#)). **To date, there are no national legal provisions in place that oblige local governments to put in place specific climate change plans and measures.** Instead, the national government adopts an enabling governance approach by providing support and funding for LG's voluntary climate actions. The "National Climate Initiative" (NCI) of the Federal Ministry of the Environment (BMU) is a prominent example (see section 4).

2.2. Länder Climate Change Policies

Climate change relevant competencies such as nature conservation, landscape management, land use and spatial planning are shared governments functions where *Länder* legislation can amend federal legislation. Without any federal legal obligation to do so, many *Länder* governments have adopted their own climate change legislation and/or strategies (in addition to federal regulations) or have formulated sectoral targets and put climate-relevant provisions in place (i.e. for construction and housing, energy production, transport etc.). A comprehensive overview of legislations in place at *Länder* level, which are relevant for regional and local energy and climate actions can be found on the [website](#) of the Agency for Renewable Energy.

Currently 10 out of 16 *Länder* have enacted climate change laws in order to coordinate climate action within the region. Eight of them include quantitative GHG reduction targets for the respective region; one law does not include quantitative GHG reduction targets (Hamburg Climate Protection Act) and one includes quantitative targets for renewable energy and a renovation quota in the building sector (Hessian Energy Act) ([Sina et al. 2019](#)). Bavaria is currently planning to adopt its own climate protection act, Lower Saxony just recently passed it. The other acts all existed prior to the Federal Climate Change Act.

TABLE 2

OVERVIEW OF LÄNDER CLIMATE CHANGE LEGISLATION. Source: Sina et al. 2019: 8

YEAR OF IMPLEMENTATION	LAND	LEGISLATION
1997, <i>amended in</i> 2020	Hamburg	Hamburg law on climate protection through energy saving
2012	Hessen	Hessian Energy Law (2012)
2013	Baden-Wuerttemberg	Act to promote climate protection in Baden-Württemberg
2013	North Rhine-Westphalia	Law to promote climate protection in North Rhine-Westphalia
2014	Rhineland-Palatinate	State law for the promotion of climate protection
2015	Bremen	Bremen Energy and Climate Protection Act
2016	Berlin	Berlin Energy Transition Act
2017	Schleswig-Holstein	Law on energy system transformation and climate protection in Schleswig-Holstei
2018	Thuringia	<i>Thuringia law on climate protection and adaptation to the consequences of climate change</i>
2020	Lower Saxony	Lower Saxony Act on the promotion of climate protection and adaptation to the impacts of climate change

Some of the *Länder* regulations include recommendations for LGs but they have (to date) largely refrained from defining mandatory climate change planning or action tasks for local governments, as this raises questions about providing state funding for a new local government mandate. If the *Länder* level defined climate action as a mandatory task for LGs, they would also need to provide regular financing for this mandate. In addition, LGs would not be eligible for national climate change funding programmes anymore, as federal funding can only be provided for voluntary local tasks. This has so far impeded setting explicit local climate action standards for LGs.

Nonetheless, some provisions still do arise from *Länder* climate change or sector regulations that influence LG's climate change actions, for example:⁷

- In **Berlin**, state district level the senate is developing a binding action plan that defines measures to reach a CO₂ neutral administration, these also have to be implemented at. Moreover, state districts will have to draft refurbishment plans for public buildings, they need to assess if public buildings are suitable for photovoltaic installations and they have to set up an energy management system and publish an annual report.
- In **Bremen**, municipalities are obliged to take climate change mitigation goals and strategies into account in urban development strategies.

⁷ Source: preliminary insights from an ongoing research project by ifeu, provided to the authors by Angelika Paar in an informal expert interview.

- In **Baden-Wuerttemberg**, larger municipalities are obliged to develop municipal heat supply plans that aim at climate neutrality. As of spring 2021, smaller LGs will receive funding to develop such plans ([Landtag von Baden-Wuerttemberg 2020](#)). Moreover, LGs have to report their energy consumption and spending (for certain public entities and public properties) to the *Land*.
- As of 2021 **Lower Saxony** will oblige municipalities to develop and publish annual reports on the energy consumption in public buildings.
- **Hamburg** wants to achieve a climate-neutral administration, this goal also extends to district administrations. Energy supply companies owned by the city have to develop decarbonisation roadmaps for heat supply.
- **North Rhine-Westphalia** has adopted regulations that will enable the *Land* to issue an ordinance that mandates municipalities to develop climate change mitigation strategies. According to the law, this ordinance will have to include specifications on how LGs can finance this mandate.
- **Thuringia** recommends that municipalities develop climate protection strategies as well as heating and cooling plans. Additionally, companies that supply district heating are obliged to develop plans to reach climate-neutral heat supply by 2040.
- **Bavaria** and **Rhineland-Palatinate** explicitly recommend that municipalities follow their climate action role model function. **Thuringia**, **Baden-Wuerttemberg** and **Rhineland-Palatinate**, however, also make clear that this falls under the LGs' own responsibility.

2.3 Monitoring of climate change planning and action

National climate policies have to date not harmonised climate change target setting, planning, implementation and reporting across government levels. Nonetheless, many districts, cities and municipalities have pioneered local climate actions. There is, however, no central database that tracks the total number of local governments that have adopted climate action plans, nor is there any reporting mechanisms in place that obliges LGs to report their actions to national or *Länder* governments (with some exceptions mentioned above). Reporting obligations merely exist for LGs that receive support from a regional or national funding programme, or for those that participate in voluntary competitions or networks. For example, 41 municipalities that receive funding from the national programme "Masterplan 100% climate protection" define specific GHG reduction goals and action plans and report on (some) of their achievements (BMU) ([NKI 2020b](#)). Other indicative numbers on the status quo of local climate change planning include:

- 2.140 local climate change strategies have been developed with support of the National Climate Initiative funding programme ([BMU 2020](#))
- 61 German municipalities are signatories to the Covenant of Mayors and have submitted action plans ([Covenant of Mayors 2020](#)).
- 516 LGs are members of the city network Climate Alliance, each member commits itself to concrete CO₂ emission reduction targets ([Klima-Bündnis 2020](#))
- 318 LGs participate in the European Energy Award ([European Energy Award 2020](#)).
- 19 LGs are ICLEI members ([ICLEI 2020](#))
- 73% of the 81 large cities in Germany (> 200.000 inhabitants) have a climate change adaptation strategy or are planning to draft one (adelphi 2020)

Additionally, many cities, municipalities and districts have drafted their own sustainable development strategies.

2.4 Subnational climate change planning instruments

TABLE 3

SUBNATIONAL CLIMATE CHANGE PLANNING INSTRUMENTS

	At local government level	At Länder level
What	<p>Local climate change mitigation and/ or adaption strategies or action plans (i.e. integrated climate action plans - Integrierte Klimaschutzkonzepte, or sector specific strategies - Klimaschutzteilkonzepte)</p> <p>Urban/ rural development and land-use plans (Flächennutzungsplan, Bebauungsplan).</p> <p>Building codes, building approval procedures.</p> <p>Local sustainable mobility plans.</p> <p>Resource management plans (i.e. energy, water, waste).</p> <p>Environmental impact assessments.</p>	<p>Regional climate change mitigation and/ or adaption regulations, strategies and action plans.</p> <p>Regional development and land-use regulations and plans.</p> <p>Local government regulations.</p> <p>Regional climate-relevant sector regulations and plans (i.e. energy, heating, water, building).¹</p>
Who	<p>All local governments must act within the framework of federal and Länder law. Climate action is however not regulated as a mandatory task. Mainstreaming climate change into existing planning instruments or developing dedicated climate change plans is thus a voluntary local government task. National and regional governments provide dedicated funding mechanisms to help all types of LG's to implement this task.</p>	<p>All Länder must act within the framework of federal law. National climate legislation however does not explicitly impose specific GHG reduction targets on the Länder. 10 out of 16 Länder have put in place their own dedicated climate change regulations. The majority has adopted climate or energy related strategies and action plans and has set up support and funding instruments for LGs. Existing regional climate change laws, however, do not oblige LGs to carry out climate actions.</p>
When	<p>LGs are not obliged to draft local climate action plans. Hence there are no nationwide local climate change planning guidelines or submission requirements in place.</p>	<p>Same for regions.</p>
Reporting modalities	<p>There are no nationwide reporting modalities in place for LGs. LGs that receive support from national or Länder funding schemes (i.e. via the Kommunalrichtlinie) have to report on their actions and achievements (to prove adequate use of funds). There are regular surveys conducted by national ministries that aim to inquire about the state of local climate action in all municipalities, but they tend to have low return rates and are hence not conclusive.</p>	<p>There are no nationwide reporting modalities in place for the Länder.</p>
Carbon accounting	<p>There are no nationwide obligatory carbon accounting mechanisms in place for LGs. However, a standardised methodology has been developed to help LGs monitor municipal energy and GHG balances (Bilanzierungsstandard Kommunal - BSKO method) (Arbeitskreis Kommunaler Klimaschutz 2020). BSKO is strongly recommended by the federal level and indeed used by many LGs (jointly with other tools, i.e. the climate action planning software Klimaschutzplaner) (Gugel 2020). However, as there are no obligatory GHG accounting standards and hence no quality control of local accounting methods, LGs use diverging methods which do not yield results that are comparable across the country.</p>	<p>There are no nationwide obligatory carbon accounting mechanisms in place for the Länder.</p>
Monitoring evaluation	<p>There are no nationwide indicators and M&E mechanism in place for LGs. Local climate strategies and plans are monitored and evaluated locally. LGs that want to receive national funding for local climate planning need to include energy and greenhouse gas inventories, emission reduction targets and appropriate measures and M&E instruments as part of their project proposals.</p>	<p>There are no nationwide indicators and M&E mechanism in place for Länder.</p>

3. Vertical coordination of climate policy and action

3.1 Coordination between federal & Länder governments

As previous sections have highlighted, most climate-related policies are adopted at the federal level, the *Länder*, in turn, are mandated to implement federal policies and their regulations and policies must adhere at least to the minimum standards set by federal law. Yet, they can also influence and veto federal legislation through the second chamber (*Bundesrat*); they can surpass national policy and implement more ambitious climate change policies and they can initiate their own climate projects and set up funding programmes. This leeway may result in a certain degree of competition for the most ambitious climate change policies among the *Länder*, which may in turn push for raising ambitions at national level (Münzner 2014).

In addition, several **vertical coordination mechanism** exist between the federal level and the *Länder*, for example:

Biannual sectoral conferences that bring together line ministers from both federal and *Länder* level, for example the Conference of Environmental Ministers (*Umweltministerkonferenz*).

These conferences are prepared by multi-level technical committees and working-groups that facilitate discussion and the development of joint recommendation. Those include for example the Federal/State Working Group on Climate, Energy, Mobility – Sustainability (*Bund/Länder-Arbeitsgemeinschaft Klima, Energie, Mobilität – Nachhaltigkeit, BLAG KliNa*); Federal/State Working Group on Nature Conservation, Landscape Management and Recreation (*Bund/Länder-Arbeitsgemeinschaft Naturschutz, Landschaftspflege und Erholung, LANA*); Federal/State Working Group on Water (*Bund/Länder-Arbeitsgemeinschaft Wasser, LAWA*) etc. The joint conferences and working committees are important vertical coordination mechanisms that also offer room for discussions on how to best leverage climate action at municipal level.

A similar example is the dialogue forum "[Energy Efficiency Platform](#)". Chaired by the Federal Ministry for Economic Affairs and Energy, it brings together relevant stakeholders from business, civil society, science, and relevant federal and *Länder* ministries to develop and discuss joint solutions for the implementation of the National Action Plan on Energy Efficiency ([BMWi 2020a](#)). The plenary meetings of the platform are supported and prepared by several specialised technical working group meetings.

Other (temporary) coordination instruments include for example the multi-level and multi-stakeholder "Coal Commission" (officially the Commission for Growth, Structural Change and Employment), which was tasked to draw up recommendations for a just transition in Germany's coal-dependent regions.

3.2 Coordination between Länder & local governments

About half of the *Länder* have to date adopted climate change legislations and all of them have sector specific regulations in place that shape LGs climate actions (see section 2.2). In addition, similar to the federal level, *Länder* governments can incentivise and motivate their LG's to perform voluntary climate actions by providing financial and advisory support.

All *Länder* governments have set up inter-ministerial climate change coordination units and/or climate and energy agencies (*Klima- & Energieagenturen*). These vary in their organisational form (i.e. set up as public or private institutions, associations), but most are primarily tasked with advising regional and local public and private institutions on energy and climate mitigation measures, many also organise trainings and networking events.⁸ They are hence central actors in facilitating regional and local climate action as well as horizontal, vertical and multi-stakeholder dialogue in each *Land*.

In addition, the *Länder* have put in place various funding programmes (often managed by regional climate and energy agencies) that help LGs implement energy and climate actions (see section 4.2).

3.3 Coordination between federal & local governments

Next to national legal standards; there are only few formal vertical links between federal and local governments. Local government affairs are an exclusive competence of the *Länder*, national climate change policy hence does not include legal provisions for local climate planning and action. Instead, the national government has adopted an enabling governance approach to promote local climate action. While financing for mandatory municipal tasks is provided by the *Länder*, the federal level can support the implementation of voluntary tasks by providing project-based funding to LGs. The most important national-local climate governance mechanisms in place is the "National Climate Initiative (NCI)", initiated in 2008 under the auspices of the Federal Ministry for the Environment (see chapter 5 below for details).

Overall, next to national legal standards that guide actions of regional and local governments (i.e. renewable energy act; CO₂ pricing), multilevel coordination on climate change action in Germany mainly consists of voluntary measures such as diverse dialogue and coordination formats and support mechanisms provided from one level to another. This approach offers both opportunities and challenges. On the one hand, Germany lacks consistent rules and regulations, which ensure that climate plans, actions and reporting mechanisms are aligned vertically. On the other hand, it offers subnational governments the opportunity to act independently and find locally-appropriate solutions that may even surpass national ambitions. This leeway has resulted in a certain degree of positive competition and produced many climate change champions from regions and cities. "Support of voluntary actions" as guiding principle for national climate policy will however not be enough to meet Germany's climate goals. For years subnational governments have lobbied for a more ambitious and coherent national enabling framework that goes beyond voluntary mechanisms, provides greater planning security through clear rules and guidelines and appropriate incentives and supporting schemes.

⁸ An overview of the regional agencies and their responsibilities can be found on the website of the [Agency for Renewable Energy](#).

4. Financing of local climate actions

4.1 Local government's own funds

Municipalities can finance climate actions with their own funds. However, to get political backing for such actions, they usually need to be economically viable or even cost-neutral (for example energy efficiency measures). Accessing existing local resources is often politically unpopular as it competes with other local priorities and/ or the implementation of mandatory tasks. Additionally, many LGs operate under severe budget constraints (see above) and are limited in their ability to fund voluntary tasks. Some municipalities have started experimenting with innovative local climate financing models that involve local citizens or businesses (i.e. citizen-climate saving bonds; citizen-contracting; energy efficiency-/ climate change funds; corporate sponsorship) ([Altenburg & Sommer](#) 2019). Funding provided from national and *Länder* governments is often key for leveraging local climate action. However, most funding programmes require own financial contributions from LGs, which many cannot provide (due to budget constraints or lack of political backing).

4.2 National and regional financing instruments

Many LG's operate with tight budgets, European, national and *Länder* funding programmes therefore play a central role in enabling local climate action. *Germany's national climate finance* landscape is highly diverse and equally complex, as funding opportunities and their modalities change frequently, it is not possible to provide a comprehensive overview of all programmes here. A central [online data base](#) from the Federal Ministry for Economic Affairs and Energy helps navigate the funding "jungle": it comprises all EU, federal and *Länder* funding programmes and can be searched by keywords (i.e. "local climate action") or filtered for specific funding criteria (thematic area, funding body, eligibility etc.)

TABLE 4

SUBNATIONAL CLIMATE CHANGE PLANNING INSTRUMENTS

INVESTMENTS	STRATEGIES & STAFF	LIGHTHOUSE PROJECTS	CERTIFICATION, AWARDS
<ul style="list-style-type: none"> • Energetic building renovation • Renewable energy • Street lighting • etc. 	<ul style="list-style-type: none"> • Development of energy- and climate change strategies • Support for hiring staff to implement the strategies • etc. 	<ul style="list-style-type: none"> • Research and development • Pilot installations • "Masterplan" municipalities • Pilot projects • etc. 	<ul style="list-style-type: none"> • European Energy Award • Eco-audits (1400 EMAS) • Climate-active municipality • etc.

The above mentioned **National Climate Initiative** – set up in 2008 by the Federal Ministry for the Environment – is Germany's main support programme explicitly dedicated to strengthening

local climate mitigation capacity. Until 2018, the NCI's "Municipal Directive for Climate Protection" (*Kommunalrichtlinie*) funded about 12.500 projects in 3.000 local governments (NKI 2018). Support is provided for both strategic and investment projects. The projects usually need to be co-financed by own funds (between 20 and 65%). LGs qualifying as financially weak can get up to 90% funding for strategic initiatives. As part of the COVID-19 economic recovery plan, funding quotas may even reach up to 100% (BMU 2020a).

A bit of a "trademark" of the NCI is the "climate manager" programme, which provides local governments with (co-) financing for up to 6 years to hire an expert to coordinate local climate activities. Since 2008, more than 760 climate manager positions have been supported in municipalities across the country (BMU 2020a). Next to project funding, the NCI also established a **local government support structure: the Service and Competence Centre for Local Climate Action** (Service- und Kompetenzzentrum: Kommunal Klimaschutz, SK:KK) functions as a help-desk for local actors and offers capacity building, networking activities and guidelines. In total, the NCI has disbursed about 1,07 billion € over the past 12 years to support climate action projects from local governments, private households and consumers, businesses and educational institutions (BMU 2020b).

Next to the NCI, the BMU has several other funding programmes, i.e. the programme [Climate Change Adaptation Measures](#) and the [Federal Biodiversity Programme](#), which can be used to finance municipal climate change projects. Funding instruments from other federal ministries include for example:

The urban development funding mechanism (*Städtebauförderung*), managed by the Federal Ministry of the Interior, Building and Community (BMI) and the respective *Länder* line ministries, promotes sustainable urban development. It consists of six programmes with various thematic funding priorities. For example, a programme focussing on [urban green infrastructure](#) provided 50 million Euros of funding between 2017-19.

The Federal Ministry for Economic Affairs and Energy (BMWi) manages [several funding programmes](#) to support renewable energy and energy efficiency in municipalities. These programme provide finance for i.e.: energy consultants to develop concepts for public building refurbishments or energy performance contracting; grants and investment subsidies to install renewable heating sources and energy efficient heating infrastructure etc. (see [BMWi 2020b](#) for a comprehensive overview).

The Federal Ministry of Food and Agriculture (BMEL) together with the BMU manage the "Forest Climate Fund". The Fund supports measures to maintain and develop the CO₂ reduction potential of forests and wood and to adapt forests to climate change. Since the launch of the Fund in 2013, around 198 projects have been approved with a total funding volume of around 65.61 million euros ([BMEL 2020b](#))

In addition, the federal government has initiated several **incentive programmes** to stimulate local climate action, i.e. the competition "climate active municipality" ([NKI 2020a](#)) (where LG can win up to 25.000 Euros) and the German sustainability award for municipalities and towns ([Deutscher Nachhaltigkeitspreis 2020](#)).

The **Kreditanstalt für Wiederaufbau** (KfW) is another important actor in the climate finance landscape. On behalf of the Ministry of Environment, the Ministry of Economics and Energy and the Ministry of the Interior, the bank offers various support programmes for municipalities and municipal companies. For example, municipalities receive grant support for energy-efficient urban redevelopment ([funding programme 432](#)) and for the energy-efficient construction and refurbishment of

non-residential buildings in the municipal stock ([programme 217 IKK](#)).

The *Länder* also provide various grant programmes to support local climate actions. These are often co-financed by national or EU funds and administered by the climate or energy agency of the respective Land. The majority of the support programmes grant financial benefits for individual municipal projects, covering projects costs from 10% to up to 100%. In few cases, the *Länder* also provide loans on special conditions. Development banks of the *Länder* (Landesförderbank, LfA) also support municipalities with low-interest loans. The development bank of Bavaria, for example, grants low-interest loans for municipal investments in environmentally friendly energy sources, energy efficiency measures and public transport. Some German foundations also provide financial support for local environmental projects.

4.3 European funds

German municipalities can access various EU funds to finance their local climate and energy actions. Among them are the LEADER programme; LIFE programme; Horizon 2020; European Regional Development Fund; European Structural and Investment Fund; European Energy Efficiency Fund; INTERREG-Programme; European Agricultural Fund for Rural Development; Connecting Europe Facility (CEF) etc. Some of these funding programmes are administered by the *Länder*.

In addition, the *Länder* climate-and energy agencies, the SK:KK and other support structures offer advisory services to LG's and help them identify appropriate funding mechanisms. However, many LGs, especially small and medium-sized towns and municipalities, do not have the staff and administrative capacity to go through with application processes for EU funds. In some cases, districts step in for their municipalities and coordinate the submission of joint proposals.

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