

# Climate change governance: The case of Italy

**Mariachiara Alberton**

Senior researcher in environmental law and policy, Institute for Comparative Federalism, EURAC Research, Bolzano/Bozen (Italy)

**ABSTRACT** Climate change embodies the essence of a multilevel and cross-sectoral governance challenge where targets and actions are discussed, set, calibrated and implemented at different governmental levels and across different policy sectors. Thus, vertical policy integration and horizontal policy integration are key factors for effective climate actions. In the context of compound systems, Italy represents an EU Member State holding the status of a regional state facing the urgent need to respond to the current climate and energy crisis. To understand the challenges, obstacles, and opportunities of multilevel and cross-sectoral climate decision-making in Italy, this article analyses the distribution of powers in climate-related issues among different layers of government, the modes of cooperation, the role of the Constitutional Court in solving the intergovernmental conflicts, and the policy and legislative initiatives enacted. Against this background, the case of the autonomous provinces of Trento and Bolzano is presented.

**KEYWORDS** multilevel governance; climate change governance; climate policy integration; local governments; intergovernmental relations; intergovernmental cooperation and conflict; autonomy; centralisation

## 1. The constitutional background

The Italian Constitution, adopted in 1947, sketched the main features of the Italian system as a regional state. Article 5 of the Constitution recognises local autonomies and promotes administrative decentralisation. Article 114 acknowledges the following local authorities, which represent local communities: the regions, the provinces and the municipalities. In particular, two categories of regions are enlisted: 15 regions with an ordinary statute and 5 regions with a special statute, namely, Sicily, Sardinia, Val d'Aosta, Friuli Venezia Giulia and Trentino Alto Adige (consisting of two Autonomous provinces, i.e., Trento and Bolzano/Bozen), which are granted greater autonomy

---

Article received on 17/02/2023; accepted on 25/04/2023.

and competences due to particular historical conditions or the necessity to guarantee the linguistic and cultural rights of minorities in border areas.<sup>1</sup>

Regardless of a formal recognition of institutional pluralism, a strong centralisation of competences and powers has marked the first decades of this institutional framework.<sup>2</sup> In fact, the process of constituting the regions (with the exception of the five autonomous regions) started only in the seventies with two decades of delay.<sup>3</sup> In addition, the process of enhancing the regions alongside the provinces and municipalities was only accelerated during the nineties and ended up with the revision of Title V of the Constitution in 2001.<sup>4</sup> Despite the fact that also municipalities are considered autonomous constituent units of the Republic, they have no legislative power and carry out their own, as well as delegated, administrative functions, as defined by national or regional/provincial law, unless these same functions are not assigned to the upper levels of government in line with the principles of subsidiarity, differentiation, and proportionality (Art. 118 of the Constitution).

The 2001 constitutional reform under Art. 117 reorganised the allocation of legislative and administrative competences across governmental levels, causing an increase in intergovernmental conflicts, recentralisation trends, and thousands of challenges before the Constitutional Court in the following years.<sup>5</sup> On the other hand, the reform introduced in Art. 116 the possibility of a “differentiated regionalism” regarding a list of statal subjects. Nonetheless, all regional attempts to increase autonomy in 2003-2008 came to a standstill. Subsequent preliminary agreements signed in 2018 between the State and some regions, i.e., Veneto, Lombardia and Emilia Romagna, have not been followed by concrete steps of devolved autonomy yet. Thus, any further negotiation of differentiated regionalism has been blocked by the predominant centralisation trend<sup>6</sup> and by

---

1. Carli, *Diritto regionale*, 167 ff.

2. Bassanini, *L'attuazione delle Regioni*.

3. Rolla, *L'evoluzione dello Stato regionale italiano*, 92 ff.

4. D'Atena, *L'Italia verso il “federalismo”*, 96 ff.

5. Alberton, *The swing of intergovernmental relations concerning environmental matters through the (un)balanced doctrines of the Constitutional Courts in Spain and in Italy*, 22 ff.

6. Bertolissi, *Autonomia. Ragioni e prospettive di una riforma necessaria*, 116 ff.

the lack of a “culture of differentiation”<sup>7</sup>. The recent approval in February 2023 of the draft framework law on regional autonomy by the Council of Ministers has fuelled the debate once again. However, the transfer of powers into the realm of the regions is far from being a predictable story and the decentralisation process may encounter old and new obstacles.<sup>8</sup>

Against this complex and fluid constitutional context, the following paragraphs analyse the distribution of powers in climate-related issues, the role of national and subnational governments, the modes of cooperation and the role of the Constitutional Court in solving the conflicts among different governmental levels. In particular, the role of subnational governments in the advancement of the fight against climate change is assessed in respect of the implementation of EU and national climate policies and in the adoption of tailor-made climate-friendly initiatives. To this end, the examples of the autonomous provinces of Trento and Bolzano, considered in many ways the frontrunners of autonomy and laboratories of innovation in the Italian arena, are provided. The concluding remarks offer a synthesis of the most relevant challenges, obstacles, and opportunities for climate vertical and horizontal policy integration in Italy.<sup>9</sup>

## 2. Climate change as a multilevel and cross-sectoral policy not explicitly defined under Art. 117 of the Constitution

According to Art. 117 of the Constitution, the State holds exclusive legislative competences in the subject matters listed in paragraph 2, e.g., environmental protection. Concurring legislative competences are divided between the State and the regions pursuant to paragraph 3 (e.g., health protection, disaster relief, land-use planning, national production, transport and distribution of energy), which means that powers are vested in the regions, except for the determination of the fundamental principles that are laid down in state

7. Palermo, *Il ruolo dello Stato nel regionalismo asimmetrico*, 5.

8. Giovanardi et al., *Autonomia, differenziazione, responsabilità*.

9. Climate policy integration can refer to horizontal policy integration (i.e., integration of climate instances across policy sectors at the same administrative scale) or vertical integration, which is often equated with characteristics of multi-level governance. *Ex plurimis*, Trein, Meyer, and Maggetti, *The integration and coordination of public policies*, 332 ff.; Adam et al., *Introducing vertical policy coordination to comparative policy analysis*, 1 ff.

legislation. Finally, in line with paragraph 4, residual competences are exercised by the regions in subject matters not expressly reserved to the State, e.g., agriculture.

The general division of competences provided for in Art. 117 is handled diversely and separately in the Statutes of Autonomy (adopted through constitutional law) of regions and provinces with special status, pursuant to Art. 116 par. 1 of the Constitution. That is to say that the legislative powers of the autonomous regions and provinces are not regulated according to the criteria in force for the ordinary regions, as outlined at the constitutional level, but directly by the provisions of the Statutes of Autonomy. However, where the 2001 constitutional reform has provided ordinary regions with a greater degree of autonomy, this should be extended to autonomy regions and provinces as long as their statutes are not updated (it is the so-called “*clausola di maggior favore*” ex Art. 10, Const. L. no. 3/2001).

Under this constitutional framework, climate change is not an explicit subject of State-regions’ allocation of competences nor is it included in the autonomy statutes’ catalogues of competences. Therefore, legislative and administrative powers on climate-related issues have been exerted on the basis of existing competences, primarily that on environmental protection, in addition to other intertwined powers on most relevant sectors, for instance, on energy, transport, spatial planning, agriculture, etc. It is worth mentioning that in February 2022, the Italian Chamber of Deputies approved a constitutional law (Chamber Act no. 3156) that modifies the Italian Constitution, introducing for the first time in the Constitution the concept of sustainable development and explicitly making reference to future generations. The “protection of the environment, biodiversity, and ecosystems, even in the interest of future generations”, is included in a new paragraph of Article 9 and, therefore, among the fundamental principles of the Italian Republic. The principle of “protection of animals” has also been introduced, in response to an increasingly strong public sensitivity, through the provision of a reserve of state law that will define the ways and forms of this protection. Under the new Article 41, private economic initiatives shall not be carried out “in such a way as to damage health and the environment”, adding these two limits to those already in force, i.e., “security, freedom, and human dignity”. The second amendment concerns the third paragraph of Article 41, reserving to the law the possibility of directing and coordinating economic activity, both public and private, for purposes that are not only social but also environmen-

tal. These recent amendments to the Italian Constitution represent, at least theoretically, an important step in the ongoing ecological and climate transition and in the implementation of sustainable business models. However, the concrete implementation of these principles will be the next challenge for the Italian system.

## 2.1. Climate change as an implicitly subsumed environmental competence

As anticipated, the most pertinent competence under which climate change policy has been encompassed is that on environmental protection. It is important to recall that prior to the 2001 reform, in the absence of specific references to the environment, legislative and executive functions have been shared between State and the regions on the basis of the following rule: the State adopts the fundamental principles and framework legislation and the regions adopt more specific and detailed legislation.<sup>10</sup> Although the intergovernmental relations in this field have never run smoothly,<sup>11</sup> on the contrary, representing a quite sensitive issue, throughout the years the Constitutional Court has succeeded in allocating powers by balancing unity and asymmetry case by case and in guaranteeing an equilibrium between diverging centralising and decentralising instances.

The 2001 constitutional reform, as anticipated, reformulated Art. 117, by reserving the “protection of the environment, the ecosystem, and cultural heritage” to the exclusive legislative competence of the State. In these fields, the State also has exclusive competence to adopt regulations, although it may delegate this power to the regions. The regions, conversely, maintain concurrent legislative and regulatory powers in several subjects related to the environment, such as the enhancement of cultural and environmental properties, territorial governance, health protection, national production and transport, and the distribution of energy (*infra*). Furthermore, according

---

10. Caravita, *Diritto dell'ambiente*, 113.

11. In total, 134 environmental decisions of the Constitutional Court (“giudizi di legittimità in via principale” and “conflitti di attribuzione”) were issued before the adoption of the 2001 constitutional reform. See Alberton, “The swing of intergovernmental relations concerning environmental matters through the (un)balanced doctrines of the Constitutional Courts in Spain and in Italy”.

to Article 117(4), the regions hold residual competence in other sectors not expressly mentioned but easily identified, including agriculture, forestry, tourism, hunting, and fisheries, which indeed affect the environment and are related to climate change. The 2001 shift in favour of an exclusive competence of the State for the protection of the environment has raised problems of coordination with the structure progressively consolidated under the previous constitutional text.<sup>12</sup> This radical shift of environmental-related competences produced an initial disorientation on the regions and a high potential for undermining intergovernmental relations.<sup>13</sup> In addition, the lack of strong cooperative mechanisms able to include regional interests in the national decision-making process funnelled all conflicts before the Constitutional Court.<sup>14</sup> It is worth recalling here that, in addition to the principle of loyal cooperation<sup>15</sup> elaborated by the Constitutional Court on the basis of Article 5 and 114 of the Constitution,<sup>16</sup> vertical coordination has been pursued through the decades mainly through the following forums: the “*Conferenza Stato-Regioni*”, a permanent body of State, regions and autonomous provinces representatives, and the “*Conferenza Unificata*”, including provinces and municipalities.<sup>17</sup> These forums aim at facilitating dialogue and information

12. Cecchetti, *La materia “tutela dell’ambiente e dell’ecosistema” nella giurisprudenza costituzionale*, 2 ff.

13. In total, 284 environmental decisions of the Constitutional Court (“*giudizi di legittimità in via principale*” and “*conflitti di attribuzione*”) were issued after the adoption of the 2001 constitutional reform (up to 2020). See Alberton, “The swing of intergovernmental relations concerning environmental matters through the (un)balanced doctrines of the Constitutional Courts in Spain and in Italy”.

14. Authoritative scholars note that constitutional disputes (“*giudizi in via principale*”) have increased since 2001 from an initial 6% to 46% in 2013. See Mangiameli, “L’ambiente’ nel riparto di competenza tra Stato e Regioni. See also: Id., “Il Titolo V della Costituzione alla luce della giurisprudenza costituzionale e delle prospettive di riforme”; Caretti and Boncinelli, “La tutela dell’ambiente negli sviluppi della giurisprudenza costituzionale pre e post-riforma del Titolo V”. See also the annual Reports on Constitutional Jurisprudence edited by Issirfa-CNR (available online at: <http://www.issirfa.cnr.it/relazione-giurisprudenza-costituzionale.html>).

15. See *ex plurimis*, Agosta, *La leale collaborazione tra Stato e Regioni*; Bartole, “Collaborazione e sussidiarietà nel nuovo ordine regionale”, 578 ff.

16. See Constitutional Court decisions no. 359/1985, 151/1986, 153/1986, 64/1987, 101/1989 and 85/1990 in the field of the protection of the environment. More specifically, on the constitutional foundation of the principle of loyal cooperation, see decisions no. 19/1997 and 242/1997.

17. Bifulco, “Il modello italiano delle conferenze Stato-autonomie territoriali (anche) alla luce delle esperienze federali”, 249 ff.; Ruggiu, “Il sistema delle conferenze ed il ruolo istituzionale delle regioni nelle decisioni statali”, 529 ff.

exchanges and the active participation of the various territorial entities in the definition of political strategies and legislation in areas of common interest and concurrent competences. Although in theory these forums can provide significant opportunities to ensure that the interests of the regions and the subnational governments involved are considered and balanced with those of the State, in practice, though their intervention is compulsory in a large number of cases in policy and legislative processes, nonetheless, their opinions are not binding for the State. This means that, and it is often the case,<sup>18</sup> the State may adopt programmatic or legislative acts by ignoring the recommendations provided by the subnational levels within the forums. This circumstance, backed by the analysis of empirical data, explains why these cooperation mechanisms are not suitable to prevent and balance clashing positions and conflicts continue to arise.<sup>19</sup>

Therefore, the Constitutional Court initially attempted to preserve the *status quo* of environmental power allocation as a matter shared between the State and the regions. Conversely, the Court started to develop, more explicitly from the 2007 rulings on, new doctrines legitimising much wider margins of state action and simultaneously reduce the regional spheres of intervention to the minimum. In decisions no. 367/2007 and 378/2007, the Court defined the environment as a “material and complex good” (*bene materiale e complesso*) and as the object of uniform and standardised discipline which should be enacted by the State only. Consistently, the State is the only authority entitled to legislate and to adopt regulations and, in addition, it has jurisdiction over administrative functions concerning the protection of the environment, including climate, unless it specifically chooses to delegate or share the regulatory and administrative function to/with the regions.<sup>20</sup> In subsequent decisions (e.g., judgements no. 12, 30, 61, 164, 220, 225, 249, 315 of 2009), the Court held that the “*transversal character*” of environmental legislation implied the prevalence of state legislation over regional concurrent legislation in other fields (e.g., urban planning, etc.) whenever they intersected.<sup>21</sup> In the Court’s reasoning, the unified discipline on the environment concerns a

---

18. *Ibidem*.

19. For an extensive analysis of empirical data on the activity of the mentioned forums see: Alberton, *Governance ambientale negli ordinamenti composti*, 127 ff.

20. Maddalena, “L’interpretazione dell’art. 117 e dell’art.118 della Costituzione secondo la recente giurisprudenza costituzionale in tema di tutela e fruizione dell’ambiente”, 12 ff.

21. Bin, “I criteri di individuazione delle materie”, 890 ff.

public interest of primary and absolute constitutional relevance which allows the State to prevail on regional prerogatives. Thus, concurrent legislative acts by the regions are illegitimate if they conflict with state provisions (judgements no. 378/2007, 278/2012). This jurisprudence has turned to systematically compress the activity of the regions (judgements no. 378/2007, 104/2008, 25/2009, 61/2009, 9/2013, 278/2012, 198/2018), which became “*recessive*” before state action (judgement no. 9/2013).<sup>22</sup> In addition, in these environmental decisions, intergovernmental collaboration has not been scrutinised as a key factor in balancing central and local instances. Since the State is exclusively entitled to all functions with regard to environmental protection, including climate, there is no need to encompass other government levels.

Nonetheless, according to the Constitution and to Statutes of Autonomy, the regions are entitled to relevant concurrent and residual powers concerning the environment and climate. Thus, the Court affirms in some decisions that the regions, by exerting their own prerogatives (in concurrent or residual competence fields), may adopt measures that indirectly impact the environment ensuring a higher standard of protection than state legislation (e.g., judgements no. 67/2010, 145/2013, 246/2013, 199/2014, 66/2018 and 198/2018). However, the evaluation of higher standards of protection cannot be exercised automatically, rather, it must be carried out considering the rationale of state legislation and all the interests considered therein (judgements no. 147/2019 and 178/2019). This means that the Court must decide on this topic on a case-by-case basis. In other decisions, the Court specifies that regional measures improving the protection level set by the State (as an indirect effect of regional prerogatives) are not considered legitimate in case State law shall be interpreted as “unmodifiable”, as it is already aimed at balancing different conflicting interests (judgement no. 178/2013). It is worth noting that in these cases, the Court justified an *ex ante* power of the State to balance different interests (i.e., competences). The State in the opinion of the Court is the only arbiter when deciding the “equilibrium point” of both state and regional powers. Conversely, in other rulings, the Court applied the same criteria and asserted that higher protection standards set by the regions were legitimate as they pertained to regional concurrent competences and did not compromise the “equilibrium point” (judgements no. 58/2013 and 145/2013).

---

22. Mangiameli, “Il Titolo V della Costituzione alla luce della giurisprudenza costituzionale e delle prospettive di riforme”, 28-29.



The same criteria and doctrines have been applied to cases concerning autonomous regions and autonomous provinces. The Court has reiterated that the environment, including climate, is not mentioned in the Statutes of Autonomy, even though some relevant environmental aspects, such as landscape protection, hunting and fishing, flora and fauna, forests, etc. are included in the statutes. As a consequence, all matters that are not explicitly declared are considered to be part of the general powers of the State in the same field, which first and foremost includes the uniform standards of environmental protection, enacted through specific and mandatory rules applicable in the entire national territory (judgement no. 387/2008). Only the specific environmental interests explicitly mentioned in the Statutes of Autonomy can be the object of autonomous legislative and executive functions; however, autonomous prerogatives are compressed by the Court by limiting their range of action to the minimum (judgement no. 215/2019). In sum, the high number of conflicts between the State and the Regions in the environmental field after the constitutional reform has negatively marked not only intergovernmental relations but also the effectiveness and coherence of environmental and climate policy and legislation in Italy.<sup>23</sup>

## 2.2. Climate change as an intersecting policy with existing competences

Besides environmental protection, relevant competences that intertwine with climate change are both concurrent ones, such as those on energy, transport and spatial planning, and residual regional competences not expressly mentioned by the Constitution but easily identified as for instance, agriculture, forestry, and tourism.

In particular, energy is deemed crucial in the mitigation of climate change impacts. Energy, i.e., “national production, transport and distribution of energy”, is also one of the most contentious concurrent competences in the Italian system. Through the years, the Constitutional Court has elaborated a doctrine on the prevalence of unitary national norms over energy-re-

---

23. Alberton, “The swing of intergovernmental relations concerning environmental matters through the (un)balanced doctrines of the Constitutional Courts in Spain and in Italy”.

lated legislative acts adopted at regional levels.<sup>24</sup> The Constitutional Court has either legitimised much wider margins of State action in the energy sector (e.g., judgements no. 7/2004, 282/2009, 124/2010, 192/2011, 99/2012, 69/2018, 286/2019) also with respect to autonomous Regions and Provinces (judgements no. 383/2005, 165/2011, 199/2014) and in parallel has restricted regional spheres of intervention in other fields, e.g., urban planning, health and landscape protection, (judgements no. 168/2010; 224/2012), because of the prevailing state interest to energy, as strategic field.<sup>25</sup> Moreover, the production of renewable energy sources has been interpreted in a first phase as belonging to the environmental competence of the State (e.g., judgement no. 166/2009), then to the concurrent competence on energy (judgements no. 189/2014, 156/2016, 14/2018, 106/2020). In some recent cases, however, the Court keeps asserting the intersection of renewable energy sources with the environmental competence (judgement no. 286/2019) and justifies the prevailing role of the State in deciding the “*equilibrium point*” of both State and regional powers (judgement no. 147/2019).<sup>26</sup> In this regard, parameters for both the authorisation of renewable energy parks and minimum distances need to be established by national laws and should not be derogated by regional laws (e.g., judgments no. 77/2022). The same limits apply to Autonomous Regions and to the autonomous provinces of Trento and Bolzano (e.g., judgement no. 106/2020). It is worth mentioning that in these decisions the “principle of the broadest spread possible of renewable energy sources” is repeatedly invoked by the Court to restrict regional interventions aiming at a higher environmental and territorial protection. In this sense, regions may barely identify areas not suitable for renewable energy parks, for instance for health reasons or landscape protection, and only on a case-by-case basis and pursuant to the national principles and ministerial criteria (judgement no. 286/2019, 106/2020).

Large hydroelectric plants represent another type of renewable sources that through the years have been the focus of the State and the regions and autonomous provinces’ contentious allocation of competences. As they fall in

---

24. For a complete review of the constitutional jurisprudence after 2001, see: Rizzo, *La materia “energia” e la competenza legislativa stato – regioni*, Parte II.

25. DiGesù, “Il riparto di competenze tra Stato e Regioni in materia di energia dal primo regionalismo alla clausola di asimmetria”, 10.

26. Mainardis, “Competenza concorrente e fonti secondarie nel ‘governo’ delle energie rinnovabili”, 1336 ff.

the category of concurring legislation about national production, transport and distribution of energy, the State shall establish the main principles in the field, while the regions and autonomous provinces shall adopt detailed legislation (e.g., judgement no. 155/2020). Under this general rule several exemptions and differing interpretations have been introduced.<sup>27</sup> For instance, decisions about the length of permits fall in the shared competence of State and Regions. The assignment of permits instead falls in the exclusive competence of the State regarding the protection of competition (judgements no. 1/2008, 205/2011, 28/2014). However, the Court affirms the exclusive competence of the Autonomous Province of Trento in matters related to technical requirements for the assignment of permits (judgement no. 117/2022).

Less critical seem the other concurrent and residual regional competences relevant to climate policy. The subject matter transport is relevant for mitigation actions aiming at reducing greenhouse gas (GHG) emissions. In particular, the concurrent competence on “large transport and navigation networks” follows the general rule whereby the State adopts the fundamental principles and framework legislation, and the Regions may introduce more specific and detailed legislation. In case of intergovernmental disputes, the Constitutional Court has extensively advocated the “subsidiarity call” doctrine, referring to the capacity of national laws to overtake regional ones, even if adopted in pursuance to regional powers, when national norms introduce nationally applicable principles that guarantee the system’s integrity and unity. However, differently from the decisions concerning the compression of regional powers in environmental-related policies, the attraction of powers to the central level may be considered legitimate only if previously discussed with the concerned Region and vertical coordination is pursued (judgement no. 303/2003 and following ones).

Conversely, according to the settled case law of the Constitutional Court, the subject matter of local transport lies in the domain of the residual exclusive regional competences (judgement no. 222/2005), nonetheless, some limits may descend from State exclusive competence in other fields, e.g., on competition and environment (e.g., judgements no. 272/2004, 5/2019, 74/2019, 78/2018

---

27. Diaco, *Produzione, trasporto e distribuzione nazionale dell’energia nei giudizi di legittimità costituzionale in via principale (2002-2015)*. Nevola, *Giurisprudenza costituzionale dell’anno 2020*.

and 137/2018). In any case, local transport is not subject to any subsidiarity call by the State (judgement no. 222/2005).<sup>28</sup>

The wording “land-use planning” introduced by the 2001 constitutional reform replaced that of “urban planning”, initially causing some interpretative issues in view of the fact that most regional statutes, including the Statutes of the autonomous provinces of Trento and Bolzano, contained urban planning among their primary competences. In line with the prevailing doctrine interpreting urban planning as a subspecies of the new category “land-use planning”, national legislation sets general principles. The analysis of the constitutional jurisprudence reveals that, also with reference to land-use planning, the State tends to expand its legislative and executive powers over regional ones with the interpretative support of the Constitutional Court (judgements no. 231/2016 and 125/2017). In addition, state cross-cutting fields, such as the environment, typically erode concurrent regional powers on land-use planning (judgements no. 93/2019, 198/2018). However, the autonomous regions and provinces holding primary competences on urban planning and landscape protection may prevent centralisation trends in this regard.<sup>29</sup> In several decisions concerning land-use planning and intersecting competences, the Court has strived to promote intergovernmental cooperation. However, existing cooperation mechanisms are not deemed adequate, as previously explained.

### 3. Climate-related policy and legislation

Moving to the climate policy and legislation enacted in Italy through the years, a constant feature is the supranational, both international and, mainly, European, nature of acts, as the following overview shows. In fact, Italy has not distinguished itself as a frontrunner or a pioneer in climate action, but rather as a laggard in the uptake of EU initiatives and obligations.

---

28. Magnifico, “Stato, regione o autorità di regolazione alla guida del trasporto pubblico locale?”, 7.

29. Mengozzi, “Il ‘Governo del territorio’ e la sua intersezione strutturale con la ‘tutela dell’ambiente’”, 22.

With the Paris Agreement, the EU and its Member States, including Italy, jointly committed to a 55% GHG emission reduction domestically by 2030, compared to 1990, and initiated a process of climate and energy legislation revision<sup>30</sup> through the “2030 Climate and Energy Framework”, and through the “Fit for 55” package, in order to reach carbon neutrality by 2050.<sup>31</sup> Pursuant to these and previously agreed upon EU climate policy targets, Italy has introduced several instruments, both strategic and binding ones, with a strong emphasis on energy and environmental competences. In fact, Italy’s most prominent long-term climate strategies are energy strategies, while climate-related executive provisions and sectoral laws are mainly energy and environmental acts. Conversely, a framework of national legislation on climate change has not been adopted yet.

One of the first of these climate strategic and programmatic documents, the “Climate Change Action Plan”, was adopted in 2002 (and later revised in 2007)<sup>32</sup> and aimed at helping Italy to comply with GHG reduction targets under the Kyoto Protocol through various incentives aimed at industrial and domestic consumers and a new system of energy tariffs. In the same years, some relevant ministerial decrees and laws were adopted in the field of energy efficiency and renewable energies (e.g., Legislative Decree no. 164/2000 and its implementing 2004 ministerial decrees, Legislative Decree no. 28/2001, Legislative Decree no. 387/2003, Law no. 239/2004, Decree no. 128/2005) and specific funds were established for the implementation of objectives related to energy efficiency, renewable energy, and environmental protection (e.g., Law no. 73/2010, finance laws of 2001 and 2008).

In the following decade, a series of new decrees and laws were adopted implementing EU directives on the emission trading market (e.g., Legislative Decree no. 102/2014, amended by Decree no. 73/2020), on the energy performance of buildings (i.e., Legislative Decree 48/2020), on the promotion

---

30. See Gores et al., “Turning Points for the Ambition of European Climate Targets”; Torney and O’Gorman, “Adaptability versus certainty in a carbon emissions reduction regime”.

31. See the EU’s climate targets and policy objectives at: [https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2030-climate-energy-framework\\_en](https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2030-climate-energy-framework_en).

32. See the decision of the Intergovernmental Committee for Economic Planning (CIPE) of December 2002, (available at [https://www.mite.gov.it/sites/default/files/archivio/documenti/deliberaCIPE\\_19\\_12\\_02.pdf](https://www.mite.gov.it/sites/default/files/archivio/documenti/deliberaCIPE_19_12_02.pdf)) and of December 2007 (available at <https://ricerca-delibere.programmazioneeconomica.gov.it/135-11-dicembre-2007/>).

of renewable energy (e.g. Legislative Decrees no. 28/2011 and 199/2021), introducing new incentives for energy-efficient buildings and renewable energy sources (e.g., Decree-Law no. 63/2013, Law no. 37/2019, finance laws of 2010 and 2019, ministerial decrees of 2016 and 2019 and, more recently, Decree-Law no. 34/2020), and simplified environmental impact assessment procedures for projects that contribute to the enactment of national objectives.<sup>33</sup> Moreover, Decree-Law no. 11/2019, incorrectly named “Climate Decree”, established urgent measures for the definition of national strategic policy to combat climate change and improve air quality, in order to comply with EU obligations and set measures to encourage sustainable mobility in metropolitan areas, reforestation measures, and the gathering and publication of environmental data. With reference to transport and sustainable mobility, a few additional laws have been adopted, such as Legislative Decree no. 187/2021 on the promotion of clean road vehicles, Law no. 145/2018 on incentives to buy electric or hybrid cars, – Decree-Law no. 111/2109 on a programme to facilitate the diffusion of electric bikes, as well as legislative measures promoting the realisation of bike lanes, and no. 34/2020 on disincentives to the use of private vehicles in urban areas.<sup>34</sup>

A second feature of the climate legislation adopted by the Italian legislator is the sectoral and fragmented nature that appears clearly from the above sketch.

While also more recent laws lay down specific provisions that contribute to climate change mitigation in a rather compartmental way and in several cases climate change is not even explicitly mentioned, national strategies seem to converge upon the wider long-term objective of carbon neutrality, thus offering a sense of policy direction that is not perceptible in the sectoral legislation.

In this respect, the “2021 Long-term Strategy on the Reduction of Emissions from GHG”, adopted by the Ministries of the Environment, Economic Development, Infrastructures and Transport, and Agriculture, Food and Forest Policies, presents options for decarbonisation in the major emitting policy

---

33. PNIEC and PNRR (*infra*).

34. See the summary on sustainable mobility provided by *Servizio studi della Camera dei deputati*, available at: <https://www.camera.it/leg17/465?tema=l-innovazione-nel-trasporto-stradale-e-la-mobilit-sostenibile>.

sectors, including transport and land use, with the aim of reaching carbon neutrality. The scenarios for decarbonisation elaborated in the strategy are based on the previously adopted “Integrated National Energy and Climate Plan” (PNIEC),<sup>35</sup> which in turn was based upon the 2017 “National Energy Strategy”.<sup>36</sup>

The PNIEC<sup>37</sup> implements EU Governance Regulation no. 2018/1999 and addresses all five dimensions of the EU Energy Union:<sup>38</sup> decarbonisation, energy efficiency, energy security, internal energy markets and research, innovation, and competitiveness. The plan establishes the following main key objectives for the period 2021-2030: 1) to accelerate the transition from traditional fuels to renewable sources; 2) to implement policies and measures in order to reduce greenhouse gases (phase out-of coal, higher CO<sub>2</sub> price, acceleration of renewables and energy efficiency in manufacturing process level); 3) to use a mix of fiscal, economic, regulatory and policy instruments to ensure energy efficiency; 4) to become less dependent on imports by increasing renewable sources and energy efficiency and to diversify sources of supply through the use of natural gas; 5) to ensure a greater degree of market integration and the development of processes, products and knowledge for the use of renewables, energy efficiency and network technology. PNIEC shows that the highest share of CO<sub>2</sub> emissions come from energy industries and transport.<sup>39</sup> The transport sector, in particular, is deemed to have the greatest potential for energy reductions and increased energy efficiency. PNIEC also encourages the promotion of systems for self-consumption and energy storage and the installation of new renewable energy plants in accordance with the Regions.

These plans and objectives have been combined with the 2021 “National Plan for Recovery and Resilience” (PNRR), which aims to implement the Next Gen-

---

35 The PNIEC is available at <https://www.mise.gov.it/index.php/it/energia/energia-e-clima-2030>.

36. See <https://www.mite.gov.it/comunicati/strategia-energetica-nazionale-2017>.

37. A comprehensive overview of these objectives is available at <https://www.senato.it/leg/18/BGT/Schede/docnonleg/43114.htm>, at 4.

38. See the 2015 “Energy Union Package. A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy” (COM/2015/080 final) which brought about the transition to a low-carbon, secure and competitive economy.

39. PNIEC, at 57 and 65.

eration EU programme nationally.<sup>40</sup> Approximately 37% of the plan's total allocation is assessed to be directed towards reforms and investments supporting climate objectives. Notable investments include sustainable mobility (e.g. integrating more regions into the high-speed rail network and completing the rail freight corridors; boosting sustainable local transport through the extension of cycle lanes, metros, tramways, and zero-emission buses), energy efficiency in residential buildings (e.g., financing a large-scale renovation of residential buildings to make them more energy efficient), renewable energy and circular economy (i.e. developing the production and incentivising the use of renewable energies including green hydrogen, as well as increasing recycling, reducing landfill waste, and improving water management). Other measures concern systems to monitor territorial risks linked to climate change, air pollution, water management, and inadequate land-use and urban planning, the promotion of energy communities in small municipalities, the development of smart and resilient energy grids, hydrogen production and storage, as well as the removal of administrative obstacles to the diffusion of renewable energies.

In 2022, the “Plan for Ecological Transition” was approved by the Interministerial Committee for Ecological Transition (Act no. 1/2022 CITE).<sup>41</sup> The Plan integrates the PNRR, reinstates emission reduction goals of 55% by 2030 and carbon neutrality by 2050, sets up a renewable energy share of 72% by 2030 and 100% by 2050 in the production of electricity, and establishes land-use neutrality to be achieved by 2030, with a specific focus on the enhancement of both water infrastructures and protected areas. The Plan for Ecological Transition is depicted as an instrument of coordination and modernisation of environmental policies, including those on climate change mitigation and adaptation. To this extent, adaptation is among the five macro goals of environmental policy.

In relation to adaptation, the national “Climate Adaptation Strategy” adopted in 2015 (Decree of Ministry of Environment, Land and Sea no. 86/2015) established specific adaptation objectives, provided a national vision on how to address the impacts of climate change in various socio-economic sectors and natural systems, and identified areas where synergies between climate mitigation and adaptation actions could be exploited, (e.g., energy and green buildings, food production and consumption, forestry and land-

---

40. See [https://next-generation-eu.europa.eu/index\\_en](https://next-generation-eu.europa.eu/index_en).

41. See CITE's dedicated webpage: <https://www.programmazioneeconomica.gov.it/il-cite/>.



use, and water resources). The following “Action Plan” adopted in 2016 defined the timeline, quantifiable objectives, and details of implementation. In addition, the former Italian Ministry for Ecological Transition promoted the “CRiAMO PA” programme to support regions and provinces in drawing up adaptation plans, including concrete instruments and guidelines at the local level.<sup>42</sup> The new 2022 Action Plan, which was suddenly approved by the Government in November 2022 after the Ischia landslide disaster,<sup>43</sup> is now under the public consultation process required by the strategic environmental assessment.<sup>44</sup>

This circumstance sheds light on a third feature of climate-related legislation and policy, which tends to reflect the same attitude already observed in other fields: the emergency and national nature of several acts. With the climate (and energy) crisis becoming more pressing, State responses increasingly take the form of governmental decrees and hinder subnational governments’ involvement and cooperation, thus questioning the essence of the regional government structure and leading to the opposite result as that of vertical integration invoked for climate policy.<sup>45</sup>

#### **4. Local governments as key players in climate policy: The case of the autonomous provinces of Trento and Bolzano/Bozen**

Scholars have stressed that subnational governments are vital for achieving climate change goals as, for instance, they contribute to policy implementa-

---

42. <https://www.mite.gov.it/pagina/piano-nazionale-di-adattamento-ai-cambiamenti-climatici>.

43. See the Government’s website: <https://www.governo.it/it/articolo/comunicato-stampa-del-consiglio-dei-ministri-n-7/21134>.

44. See the website of the Ministry of Environment and Energy Security (MASE, formerly Ministry for the Ecological Transition, MISE, formerly Ministry for the Environment, Land and Sea): <https://www.mase.gov.it/comunicati/pubblicato-sul-sito-del-mase-il-piano-di-adattamento-ai-cambiamenti-climatici>.

45. This phenomenon has been particularly prominent under the Covid-19 pandemic as noticed by several scholars. See *ex multis* Caretti, “I riflessi della pandemia sul sistema delle fonti, sulla forma di governo e sulla forma di Stato”, 296-297; D’Orlando, “Emergenza sanitaria e Stato regionale”.

tion or may even compensate for insufficient regulation at the national and international levels; they may address more effectively the impacts of climate change at the local level and take tailor-made adaptation actions.<sup>46</sup> However, high degrees of cooperation are requested in order to produce positive outcomes and avoid maladaptation.<sup>47</sup>

In this regard, the analysis of the case of the autonomous provinces of Trento and Bolzano/ Bozen may offer some further insights into the Italian climate governance already depicted.

The two autonomous provinces hold a particular status within the national legal system, entrenched in the 1972 Statute of Autonomy. Since then, the Statute of Autonomy transferred most of the legislative and administrative powers from the Autonomous Region of Trentino-Alto Adige/South Tyrol to the autonomous provinces of Trento and Bolzano. Both provinces have adopted their own climate initiatives and have the ambition to play a crucial role in the fight against climate change, although climate change is not a subject matter *per se* and, as such, it is not included in the Statute of Autonomy's catalogue of provincial competences. Nonetheless, mitigation and adaptation measures are transversal to several fields both of provincial exclusive and shared competence, such as urban planning, transport, landscape, flora and fauna protection, forests and agriculture, and tourism. In this regard, the Court has clarified that autonomous provinces may regulate only the aspects explicitly mentioned by the Statute. In particular, with reference to the environment, it cannot be assumed a provincial overall competence and remains a national exclusive competence (judgements no. 67/2010, 387/2008, 225/2009, 66/2012, 145/2013, 58/2013.). Conversely, the two provinces may regulate those explicitly mentioned aspects; for example, landscape, flora, and fauna protection (Art. 8, no. 6 and 16). In addition, local transport and urban planning are relevant sectors in the exclusive powers of the two provinces (respectively, Art. 8, no. 18 and 5). On the contrary, energy is not explicitly mentioned in the Statute of Autonomy. However, because of the constitutional reform of 2001, it appears a competence shared between the State and

---

46. *Ex multis*, Michaelowa and Michaelowa, "Transnational Climate Governance Initiatives", 129 ff. See also Masson-Delmotte et al., *Report of the Intergovernmental Panel on Climate Change Global Warming of 1.5°C*.

47. Biesbroek and Lesnikowski, "Adaptation The Neglected Dimension of Polycentric Climate Governance?", 303 ff.

the regions. Hereof the Constitutional Court asserted that the competence related to the energy sector as provided for in the Statute of Autonomy of 1972 is narrower compared to the shared competence recognised by the Constitution to the ordinary statute regions. Therefore, due to the provision of the above-mentioned Article 10 of Const. L. no. 3/2001, the greater degree of autonomy in the energy sector recognised to ordinary statute regions needed to be extended to the two autonomous provinces.<sup>48</sup> In line with this provision and its interpretation by the Constitutional Court, in the energy sector the legislative (and administrative) power is shared between the two autonomous provinces and the State. This means that except for the determination of the state's fundamental principles, the autonomous provinces may formulate energy targets, plan direct interventions, including structural ones, and promote and develop renewable energies (e.g., through simplified authorisation processes) within their territories. Finally, it is important to recall that the hydroelectric sector is explicitly included in the Statute of Autonomy as shared competence (Art. 9, no. 9, Art. 12 and 13). Water is both a strategic source of renewable energy for the autonomous territory and a key element of climate change mitigation in the realm of the autonomous governments.

The two autonomous provinces followed different paths in addressing the challenges of climate change. Nonetheless, they both developed their overall policy on climate change identifying their general goals in soft law instruments, such as strategies, action plans and policy recommendations. It is worth mentioning, however, that they have refrained from the adoption of comprehensive climate legislative acts because the existing division of competences, as further interpreted by the Constitutional Court in the post-2001 reform phase, is perceived as discouraging for autonomy actions, especially in those sectors more strategic for climate action such as energy and environment, as illustrated in previous paragraphs by the analysis of the jurisprudence. At any rate, competences in climate-related fields have been exerted to some extent through a few provincial legislative acts and provincial ordinances as follows.<sup>49</sup>

---

48. The first ruling of the Constitutional Court on this issue is no. 383/2005.

49. Alberton et al., "Climate Change at subnational level", 70 ff.

#### 4.1. The case of the Autonomous Province of Trento

Since 2010 the Autonomous Province of Trento has started to include specific provisions on climate change in its laws and strategic acts. L.P. no. 5/2010 “*Il Trentino per la protezione del clima*” required in Art. 2 that the autonomous province adopts strategies and actions to combat climate change and its own appropriate mitigation and adaptation measures; establishes a provincial network to monitor environmental and climate change conditions, and the Climate Change Fund (providing the necessary financial resources both for the Observatory and the Coordination and Action Table, *infra*). In addition, with a concurrent act of the provincial government (D.G.P. no. 1836/2010), the Observatory on Climate Change for Trentino (as the framework for scientific and technical coordination of all provincial monitoring, research, and scientific entities dealing with climate change issues) and the Coordination and Action Table on climate change (composed of all interested provincial departments and agencies), were established.

The repealing L.P. no. 19/2013 “*Legge sulla valutazione di impatto ambientale*” introduced Art. 23 “*Strategie e interventi della Provincia per fronteggiare il cambiamento climatico*”, under which the Autonomous Province of Trento promotes a comprehensive strategy to tackle climate change, adopting appropriate adaptation and mitigation measures within its planning and programming tools, both wide-ranging and sectorial, within the limits imposed by the national, EU and international levels. The L.P. no. 19/2013 also introduces the concept of “Trentino zero emissions” by 2050 and aims at reaching a “energy self-sufficient Trentino” by the same deadline.

Since 2020 (D.G.P. no. 647/2020), the Provincial Environmental Protection Agency’s mandate has been enlarged to include horizontal coordination functions among provincial departments in order to better mainstream climate change into policymaking and implementation, thus replacing the former Coordination and Action Table on Climate Change (D.G.P. no. 1836/2010). The body is consulted when legislative or strategic acts on climate-related matters are adopted, as in the case of the adoption of “Trentino Clima 2021-2023”, namely, the programme finalised to identify the provincial strategy of mitigation and adaptation (*infra*).<sup>50</sup> Furthermore, it represents the Auton-

---

50. See the Autonomous Province of Trento’s dedicated webpage: [http://www.climatrentino.it/chi\\_siamo/provincia\\_trento\\_clima/](http://www.climatrentino.it/chi_siamo/provincia_trento_clima/).

onomous Province of Trento at national and international tables on climate matters; it supervises and coordinates the activities of the Trentino Climate Observatory, which continues to deal with the technical scientific coordination of entities engaged in research and monitoring of climatic variables, scientific dissemination activities, information campaigns, and environmental education in the Trentino area;<sup>51</sup> and coordinates the Provincial Forum on Climate Change, currently composed of research institutions such as the University of Trento, cultural and scientific promotion bodies such as the Rovereto Civic Museum Foundation, the Adamello Brenta Natural Park, and associations such as Trento Film Festival.<sup>52</sup> In addition, it promotes the coordination of awareness and communication actions aimed at Trentino citizens on climate issues.

As anticipated, in 2021, the Autonomous Province of Trento adopted (D.G. no. 1306/2021) the scoping paper “Trentino Clima 2021-2023”, a work plan coordinated by the Environmental Protection Agency, leading to the approval of the provincial Strategy for Mitigation and Adaptation to Climate Change by the end of 2023.<sup>53</sup> This strategy should represent the future blueprint to guide all provincial administrative actions in identifying the measures to be integrated into the planning and programming of various policy sectors in a coherent and coordinated manner. The work plan “Trentino Clima 2021-2023” also contains the proposal for a governance system coordinated by the Environmental Protection Agency and based on a new Observatory on Climate Change for Trentino that would include the Provincial Table of Coordination and Action on Climate Change<sup>54</sup> and a Scientific Committee, composed of representatives of the research and scientific provincial entities. This governance system would be complemented by the Climate Change

---

51. See the Provincial Environmental Protection Agency’s dedicated webpage: <https://www.appa.provincia.tn.it/News/Approfondimenti/Osservatorio-Trentino-Clima>.

52. See the link: [http://www.climatrentino.it/chi\\_siamo/osservatorio\\_trentino\\_clima/-Forum\\_osservatorio/](http://www.climatrentino.it/chi_siamo/osservatorio_trentino_clima/-Forum_osservatorio/).

53. See “*Trentino Clima 2021-2023: Programma di lavoro sui cambiamenti climatici della Provincia Autonoma di Trento*” (available at: [http://www.climatrentino.it/notizie\\_clima/pagina187.html](http://www.climatrentino.it/notizie_clima/pagina187.html)).

54. The Provincial Departments involved are those of Environment, energy and cooperation, Water and energy, Civil protection, forests and fauna, Education and culture, Agriculture, Economic development and labour, Health and social policies, Infrastructures and transport, Craftmanship, Trade, Sport, and tourism.

Forum, composed of different provincial entities and aimed at promoting public participation in climate change topics at the local level.

Following the adoption of the National Strategy for Sustainable Development of 2017, the Autonomous Province of Trento adopted in 2021 the Provincial Strategy for Sustainable Development,<sup>55</sup> which identifies twenty provincial sustainability objectives, grouped into five areas in line with the five EU policy objectives<sup>56</sup> for supporting growth for the period 2021-2027: 1) a smarter Trentino, 2) a greener and climate neutral Trentino, 3) a more connected Trentino, 4) a more social Trentino, and 5) a Trentino closer to its citizens. This strategy indicates the path to follow to build a sustainable territory, explicitly based on energy transition and adaptation to climate change, and represents the overarching framework within which the Provincial Strategy of Mitigation and Adaptation to Climate Change lies.

In addition to the province's overall strategic framework on climate change, climate objectives are also included, to varying degrees, in the specific relevant sectoral strategies and laws.

In the energy sector, the Autonomous Province of Trento adopted in 2021 the “Energy and Environmental Provincial Plan 2021-2030”, which outlines in general terms the provincial mitigation strategy objectives, in line with L.P. no. 19/2013: 50% of emissions reduction by 2030, updated to 55% as prescribed by the new EU Climate Law, and increasing energy efficiency and use of renewable energies in all relevant sectors, e.g., private and public buildings, industry and mobility. The L.P. no. 20/2012 “*Legge provinciale sull’energia e attuazione dell’articolo 13 della direttiva 2009/28/CE*” aligns with the EU and national energy policy targets and promotes the use of energy from renewable sources. The recent L.P. no. 4/2022 “*Misure per la promozione dell’uso dell’energia da fonti rinnovabili per il raggiungimento degli obiettivi di sviluppo delle fonti rinnovabili [...]*” introduced additional measures to promote the use of renewable energy sources, for instance, by identifying suitable areas

---

55. Available at <https://agenda2030.provincia.tn.it/Trentino-2030/Strategia-provinciale-SproSS>.

56. The 2021-2027 EU cohesion policy objectives are: 1) a more competitive and smarter Europe; 2) a greener, lowcarbon transitioning towards a net zero carbon economy; 3) a more connected Europe by enhancing mobility; 4) a more social and inclusive Europe; 5) Europe closer to citizens by fostering the sustainable and integrated development of all types of territories.

for renewable sources and by simplifying permitting procedures also with regard to landscape authorisation. The law has been appealed by the State before the Constitutional Court (procedure no. 42/2022)<sup>57</sup> and the decision on its legitimacy is now pending.<sup>58</sup> In the meanwhile, a subsequent L.P. no. 7/2022 modified some provisions of L.P. no. 4/2022, and some arguments of illegitimacy could be overpassed.

A further example of the local level involvement in achieving the objectives of reducing emissions and increasing energy production from renewable sources is the Covenant of Mayors' initiative for climate and Energy, where the Autonomous Province of Trento acts as coordinator of several municipalities (including the city of Trento) which joined and adopted the "Sustainable Energy Action Plan".<sup>59</sup>

With regard to transport,<sup>60</sup> the main strategy having an impact on climate change is the "Provincial Plan for Electric Mobility" approved in 2017. The targets explicitly referring to climate change are GHG emissions reduction and reduction of emissions released in the atmosphere by the transport sector (e.g., CO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>2</sub>, etc.), making Trentino a more attractive territory in terms of emission reduction and environmental quality.

In the water sector, the Plan for the General Management and the "Use of Public Water" adopted in 2006 does not include references to climate change issues; however, the preliminary version of the "Plan for Water Protection 2022-2027", approved in 2021, includes a specific attachment on climate change impacts and effects, future scenarios, and a series of proposed actions for adaptation to be implemented within the autonomous province's territory.<sup>61</sup>

---

57. See the Constitutional Court webpage: <https://www.cortecostituzionale.it/schedaRicorsi.do>.

58. The analysis of the provisions appealed by the State is provided by: <https://www.affariregionali.it/banche-dati/dettaglioleggeregionale/?id=59773>.

59. More info available at the Autonomous Province of Trento website (<https://www.comune.trento.it/Aree-tematiche/Ambiente-e-territorio/Energia-sostenibile/Patto-dei-sindaci>).

60. More info available at the Autonomous Province of Trento website (<https://pianoaria.provincia.tn.it/Il-Piano/Settori-di-intervento/Trasporti-e-mobilita-sostenibile>).

61. See "attachment M". More info available at the Environmental Protection Agency website ([http://www.appa.provincia.tn.it/pianificazione/Piano\\_di\\_tutela/pagina36.html](http://www.appa.provincia.tn.it/pianificazione/Piano_di_tutela/pagina36.html)).

In the spatial and urban planning plans and laws (not even in the L.P. 15/2015 on land-use planning), no specific reference is made to climate change. However, the document “*Il futuro della città di Trento si costruisce oggi. Obiettivi e percorso della variante generale del Piano Regolatore generale*”, approved by the Municipal Council of Trento in 2018, includes among the objectives of prospective revisions of the general plan the coordination of urban objectives and environmental topics in light of climate change mitigation and adaptation of the city to its effects.<sup>62</sup>

## 4.2. The case of the Autonomous Province of Bolzano/Bozen

The Autonomous Province of Bolzano/Bozen has not issued a specific legislative act on climate change. Instead, an overall, cross-cutting vision on climate action was conceived in the 2011 “Climate Strategy - South Tyrol Energy 2050”, which focuses primarily on mitigation measures, while leaving the definition of adaptation objectives and measures to sectorial plans and legislative acts. The measures are grouped into several axes: energy supply and smart energy management; rational and smart use of energy; building renovation and construction; environment-friendly use of renewable energy; general prevention measures for climate protection; and participation, innovation, and transfer of know-how. The Strategy defines the main strategic axis of intervention at the provincial level in all the relevant sectors and incorporates the principles enshrined at the international, European and national levels, applying them downwards at the provincial level. An update of this strategy aims to introduce a wide range of measures to reduce the climate impact of the provincial energy system.<sup>63</sup> The Provincial Agency for Environment and Climate Change played a coordinating role for the involved provincial administrations. The revision process included a public participatory phase<sup>64</sup> and the publication of an independent technical study

---

62. More info available at the Municipality of Trento website (<https://www.comune.trento.it/Aree-tematiche/Ambiente-e-territorio/Urbanistica/Il-nuovo-PRG-Piano-regolatore-generale>).

63. The first part of the revised draft is available online at: <https://www.klimaland.bz/it/piano-clima-energia-alto-adige-2050/download-pianoclima-energia-2050-bozza-2021-pdf/>.

64. Info available at the Autonomous Province of Bolzano/Bozen website (<https://www.klimaland.bz/it/piano-clima-energia-alto-adige-2050/>).



on the potential scenarios for South Tyrol toward climate neutrality.<sup>65</sup> The first general part of the revised Strategy, entitled “Climate Plan South Tyrol 2040”, was presented by the Provincial Government in September 2022 together with the announcement of the climate neutrality target by 2040.<sup>66</sup>

In addition, the provincial government published in 2021 a concept paper on sustainability “Every Day for Future – Together for Sustainability”, with the aim of developing a common strategic programme for sustainable development linked with the climate plan targets.<sup>67</sup>

Besides the above-mentioned overall strategies, the provincial climate policy is also implemented at the sectoral level through specific strategic plans and a few binding acts.

The main frame of reference for the energy policy is contained in the above-mentioned “Climate Strategy - South Tyrol Energy 2050”, while the general objectives have been already approved in the new “Climate Plan South Tyrol 2040”. A specific target for renewable energy deployment is foreseen: 75% by 2030 and 85% by 2037. Furthermore, a relevant energy policy initiative is “*Casa Clima*”, a centre of excellence for energy-efficient and sustainable construction and renovation, which developed a method of energy efficiency certification for houses and buildings. In 2014, it turned into the Energy Agency South Tyrol – Casa Clima, a public body of the Autonomous Province of Bolzano established to facilitate the provincial territory towards the energy objectives indicated by the Climate Strategy. As for specific provincial legislation on energy, the L.P. no. 9/2010, as amended by L.P. no. 10/2018 and L.P. no. 1/2022, includes provisions on energy efficiency, renewable energies and climate protection. In line with national legislation, it prescribes a single authorisation process for the construction and management of renewable energy plants and a simplified authorisation process for small-scale renewable energy plants. Specific provincial laws have been adopted (e.g., L.P. no. 2/2015) with reference to the hydroelectric sector, aiming at simplifying concessions and authorisation processes of small and

---

65. Sparber et al., *Scenari per l'Alto Adige verso la neutralità climatica*.

66. See <https://news.provincia.bz.it/it/news/giunta-provinciale-neutralita-climatica-dell-alto-adige-entro-il-2040>.

67. More info available at the Autonomous Province of Bolzano/Bozen website (<https://nachhaltigkeit.provinz.bz.it/il-progetto>).

medium plants. According to the Provincial Institute for Statistics (report no. 19/2022),<sup>68</sup> the production of energy from hydroelectric power represents 89,9% of the electricity produced in the Province of Bolzano.

Furthermore, local governments' involvement in climate and energy policies is supported by the Covenant of Mayors initiative. As in the case of the Municipality of Trento, the Municipality of Bolzano also joined the Covenant in 2009 and adopted the "*Sustainable Energy and Climate Action Plan*" in 2020.<sup>69</sup> Both mitigation and adaptation measures are identified. Within the Autonomous Province of Bolzano/Bozen, each municipality has the duty to develop a climate protection and energy-saving plan, setting strategies and objectives to be reached at the local level. As an example, the Municipality of Bolzano has recently achieved the "Gold certification" as part of the "*ComuneClima*" initiative (based on the European Energy Award) which aims to support and reward municipalities that are committed to a sustainable local energy policy and development.

As regards transport, the Green Mobility initiative has the objective of promoting a better life quality for residents and tourists, together with the promotion of electric mobility. Eventually, the Autonomous Province of Bolzano established the public company Green Mobility Alto Adige, aiming at bringing together different actors and promoting new green initiatives, such as the installation of charging stations for electric cars.

In the spatial planning sector, the Provincial Plan for Development and Territorial Coordination<sup>70</sup> has been issued with the final aim to integrate key energy policy visions into overall land development planning. The Plan is currently under revision. The L.P. no. 9/2018, which is the reference legislation for territory and landscape management, addresses climate change only indirectly through its principles and objectives. Consistently, it aims to provide measures for reducing net land take, giving priority to reusing and

---

68. See the ASTAT website: [https://astat.provincia.bz.it/it/news-pubblicazioni-info.asp?news\\_action=300&news\\_image\\_id=1135718](https://astat.provincia.bz.it/it/news-pubblicazioni-info.asp?news_action=300&news_image_id=1135718).

69. More info available at the Autonomous Province of Bolzano/Bozen website ([https://www.comune.bolzano.it/ambiente\\_contexto2.jsp?ID\\_LINK=4988&area=68](https://www.comune.bolzano.it/ambiente_contexto2.jsp?ID_LINK=4988&area=68)).

70. See the dedicated provincial webpage: <https://www.provincia.bz.it/natura-ambiente/natura-territorio/pianificazione/lerop-piano-sviluppo-coordinamento-territoriale.asp>.

recycling land, promoting energy efficiency and renewable energies, and preventing and protecting against natural hazards.

Finally, the Autonomous Province of Bolzano has recently activated a joint process with the provincial research institutes and departments and actors from the civil society to elaborate an adaptation strategy, which should include concrete sector-specific and overarching adaptation measures for the provincial territory.<sup>71</sup>

## 5. Conclusions

Understanding how climate governance works or does not work in Italy is ultimately linked to an assessment of the role of the existing regional structure in “striking a balance between unity and diversity through the combination of divided and shared rule”.<sup>72</sup>

Scholars have demonstrated that the complex multilevel systems of governance in many compound states have been a source of complexity, conflict, fragmentation, and inefficiency that has made the adoption and implementation of climate policies more challenging.<sup>73</sup> In fact, the governance of the sectors that relate to climate governance, such as environmental protection, energy, water, land, and urban planning, have long been a source of tension between different levels of government and have resulted in inconsistent efforts to promote decarbonisation and enhance climate resilience.<sup>74</sup> As argued by the literature, governing climate change poses at least two institutional challenges to compound states such as Italy. It requires a higher level of vertical coordination among different levels of government because climate governance intersects with a number of subject matters that are either a state-exclusive competence or shared between the national and subnational levels or where subnational governments are entitled to exercise residual legislative and executive competences. Second, as the governance of cli-

---

71. See the project website: <https://www.eurac.edu/en/institutes-centers/institute-for-renewable-energy/projects/adaptation-st>.

72. Hueglin and Fenna, *Comparative Federalism*, 3.

73. Casado-Asensio and Steurer, “Mitigating Climate Change in a Federal Country Committed to the Kyoto Protocol”, 257 ff.

74. Austin et al., *Intergovernmental Relations for Public Health Adaptation to Climate Change in the Federalist States of Canada and Germany*, 226 ff.

mate change is not (and cannot be) contained within any single sectoral policy at either the national or subnational levels, on the contrary, it is transversal to a number of policy fields such as environmental protection, energy policy, water management, spatial planning, agriculture, etc., it requires further horizontal integration efforts, as governments need to enact legislative and administrative measures in a range of different sectoral policy areas. Coordination at different governmental levels and across sectors is, therefore, necessary to ensure both the coherence and effectiveness of mitigation and adaptation initiatives.

The brief overview of the existing institutional setting and of the policy and legislative framework in place has highlighted the complexity of climate change policy integration in Italy and emphasised some existing trends and features.

First, as demonstrated throughout the previous paragraphs and observed both by the quoted scholars and the constitutional jurisprudence, the Italian constitutional division of competences adopted after the 2001 constitutional reform has raised a lot of problems, especially in the fields relevant to climate change policy implementation. In fact, state-exclusive competences in transversal fields and topics have opened up the doors to an increasing process of regional power erosion and regional power compression. This process of recentralisation of concurrent and residual legislative and administrative powers, either intercepted by exclusive state competences or exerted (in the case of concurrent powers) more extensively and absorbed by the State, has contributed to exacerbating intergovernmental cooperation. In this regard, considering the post-2001 reform timeframe, the environmental and energy fields, which are the most relevant to climate action in Italy, have proven to be among the most contentious for intergovernmental relations. In addition, the lack of strong cooperative mechanisms able to include regional and local interests in the national decision-making process, especially in times of climate crisis and growing policy-making complexity, funnelled all conflicts before the Constitutional Court. In turn, the last twenty years of constitutional rulings have steadily backed the centralisation trend, with few exceptions, thus significantly contributing to further exasperating the conflict between the State and the regions/autonomous provinces.

The second point concerns the enactment and implementation of climate policy and legislation in Italy: almost all national measures have been derived by the EU (e.g., the 2009 Renewable Energy Directive, the 2012 Energy Ef-

efficiency Directive, and the Effort Sharing Decision).<sup>75</sup> While some (former) Member States have anticipated and influenced the EU's climate mitigation and adaptation initiatives, for instance by establishing climate governance frameworks with a long-term outlook through the adoption of national climate laws (e.g., the UK's pioneering 2008 *Climate Change Act* which inspired a range of related national framework laws), Italy's national climate-related policies and laws have been implemented merely in response to EU obligations, strategies and binding instruments. A collateral implication of this phenomenon is that climate-related legislation has been mostly enacted at the national level, followed by a few regional/provincial initiatives. If, on one hand, the State is the only responsible entity before the EU for implementing EU legislation, it does not prevent subnational government involvement, especially in those fields where they hold concurrent and exclusive competences. Nonetheless, to comply with EU's targets, the national legislative activity has increased not only in the field of state competences, e.g., on environmental protection, but also in those concurrent and residual fields where the regions and autonomous provinces hold legislative competences, such as energy. The regions and autonomous provinces have in most cases been relegated to mere implementing governmental levels and, in several cases, their climate-related initiatives have been appealed by the State on the basis of prevailing state energy interests or exclusive environmental competence. Although the analysis conducted in this article is not sufficient to evaluate the extent to which the centralisation trend of climate-related legislation is a consequence of the EU law implementation by the State, it could be seen nonetheless as a contributing factor in preventing regional initiatives. In this regard, it is worth recalling that the Constitutional Court observed, with reference to environmental legislation, that the implementation of EU law has been interpreted by the State as a *passe-partout* to limit the subnational entities' powers.<sup>76</sup>

Leaving this question open, a third observed element of this complex picture is that, with the climate crisis becoming more pressing, a multitude of different provisions have been adopted in different sectors, such as energy, water, environment, transport, etc., aggravating the already existing problem

---

75. Reports by Member States to the European Environment Agency (EEA) under the EU Monitoring Mechanism Regulation (2019).

76. See judgement no. 425/1999.

of legislative fragmentation. An overarching and comprehensive national vision and initiative has not been elaborated yet. Considering that a relevant strand of literature has repeatedly claimed that horizontal policy integration plays an important role in coherent, adequate, timely and effective climate change action,<sup>77</sup> more attention should be paid to mainstreaming climate mitigation and adaptation objectives into existing policies, thus avoiding a compartmentalised, fragmented, siloed policy approach which characterises the current Italian system.

Some counter-trends, however, should be mentioned here.

First, strategies, plans, and policy guidelines on mitigation and adaptation measures have been progressively adopted at subnational levels and, in general, reflect a more coordinated action of subnational governments with the State. In addition, subnational long-term objectives of carbon neutrality are becoming more ambitious than national ones and, in some cases, even anticipate national action in terms of timeframes and deadlines. An example is offered by the revision of the “Climate Strategy - South Tyrol Energy 2050”, which has already set a target of climate neutrality by 2040 and aims at adopting more ambitious mitigation measures than those required at the national and EU levels.

An additional factor of innovative and more ambitious subnational action is provided by the forthcoming “Trentino Strategy for Mitigation and Adaptation to Climate Change”, which, as clearly indicated, should guide all provincial administrative actions in identifying the measures to be integrated into the planning and programming of various policy sectors in a coherent and coordinated manner, thus overtaking the existing sectoral policy approach. This initiative should be welcome also as a positive attempt to include climate instances in all relevant policies and as an advancement toward horizontal coordination and policy integration.

Innovative actions at the local level have been mentioned in previous paragraphs also with reference to energy (e.g., Casa Clima) and other sectoral policies, such as transport (e.g., green mobility initiatives), which are strictly interconnected with climate change. While they constitute tangible examples

---

77. See *ex multis*, Biesbroek, “Policy integration and climate change adaptation”.

of the truly multilevel climate governance of the EU (facilitated through the EU Covenant of Mayors for Climate and Energy that links the EU and national levels to local action by promoting regions and city-level mitigation and adaptation policymaking), they also represent original and pioneering responses of subnational governments.<sup>78</sup>

Especially, the need to adapt to climate change impacts is accelerating a decentralised action, more tailor-made and adjusted to territorial needs, thus calling for a key role of regional and local governments in Italy.<sup>79</sup>

A stronger and wider role of subnational governments in the Italian climate policy is, therefore, welcome and should be encouraged and promoted by the national government to enable multilevel reinforcing climate action. However, under the current institutional setting, truly multilevel and cross-sectoral governance stands as the elephant in the room.

## Bibliography

- Adam, C., C. Hurka, S. Knill, G. Peters, and Y. Steinebach. “Introducing vertical policy coordination to comparative policy analysis: the missing link between policy production and implementation”. *Journal of Comparative Policy Analysis Research and Practice* 21, no. 1 (2019): 1-19.
- Agosta, Stefano. *La leale collaborazione tra Stato e Regioni*. Milano: Giuffrè, 2008.
- Alberton Mariachiaro. *Governance ambientale negli ordinamenti composti. Traiettorie italiane e spagnole tra unità e asimmetria*. Napoli: ESI, 2021.
- . “The swing of intergovernmental relations concerning environmental matters through the (un)balanced doctrines of the Constitutional Courts in Spain and in Italy”. *REAF* (May 2021): 1-43.
- Alberton M., P. Bußjäger, A. Meier, and S. Parolari. “Climate Change at subnational level: The case study of the Autonomous Provinces of Trento and Bolzano (Italy) and the Länder Tyrol and Vorarlberg (Austria)”. In Cittadino-Parks-Bußjäger-Rosignoli, eds., *Climate Change Integration in the Multilevel Governance of Italy and Austria: Policy-Making and Implementation in Selected Subnational Policies*. Leiden: Brill, 2022.

---

78. For an overview of the Covenant of Mayors’ initiatives within the Italian context see Santopietro and Scorza, “The Italian Experience of the Covenant of Mayors”; Brocchieri and Taurino, *Stato di Attuazione del Patto dei Sindaci in Italia*.

79. On this point see De Gregorio Hurtado et al., “Implications of governance structures in urban climate action”, 1 ff.

- Austin, Stephanie et al. "Intergovernmental Relations for Public Health Adaptation to Climate Change in the Federalist States of Canada and Germany". *Global Environmental Change* 52 (June 2018): 226-237.
- Bartole, Sergio. "Collaborazione e sussidiarietà nel nuovo ordine regionale". *Le Regioni* 1 (2004): 578 ff.
- Bassanini, Franco. *L'attuazione delle Regioni*. Firenze: Nuova Italia, 1970.
- Bertolissi, Mario. *Autonomia. Ragioni e prospettive di una riforma necessaria*. Venezia: Marsilio Editore, 2019.
- Biesbroek, Robbert. "Policy integration and climate change adaptation". *Current Opinion in Environmental Sustainability* 52 (2021): 75-81.
- Biesbroek, Robbert, and Alexandra Lesnikowski. "Adaptation The Neglected Dimension of Polycentric Climate Governance?". In Huitema Jordan, Asselt, and Forster, eds., *Governing Climate Change. Polycentricity in Action*, 303-19. Cambridge, UK: Cambridge University Press, 2018.
- Bifulco, Raffaele. "Il modello italiano delle conferenze Stato-autonomie territoriali (anche) alla luce delle esperienze federali". *Le Regioni* 2-3 (2006): 249 ss.
- Bin, Roberto. "I criteri di individuazione delle materie". *Le Regioni* 6 (2006): 889-902.
- Brocchieri, Federico, and Ernesto Taurino. *Stato di Attuazione del Patto dei Sindaci in Italia*. Report no. 316/2020. Roma: ISPRA, 2020. [https://www.isprambiente.gov.it/files2020/pubblicazioni/rapporti/rapporto\\_316\\_2020.pdf](https://www.isprambiente.gov.it/files2020/pubblicazioni/rapporti/rapporto_316_2020.pdf).
- Caravita, Beniamino. *Diritto dell'ambiente*. Bologna: Il Mulino, 2005.
- Caretti, Paolo. "I riflessi della pandemia sul sistema delle fonti, sulla forma di governo e sulla forma di Stato". *Osservatorio sulle fonti*, fasc. speciale (2020): 295-298. <http://www.osservatoriosullefonti.it>.
- Caretti, Paolo, and Vanni Boncinelli. "La tutela dell'ambiente negli sviluppi della giurisprudenza costituzionale pre e post-riforma del Titolo V". *Giurisprudenza Costituzionale* 6 (2009): 5179.
- Carli, Massimo. *Diritto regionale: le autonomie regionali, speciali e ordinarie*. Torino: Giappichelli, 2022.
- Casado-Asensio, Juan, and Reinhard Steurer. "Mitigating Climate Change in a Federal Country Committed to the Kyoto Protocol: How Swiss Federalism Further Complicated an Already Complex Challenge". *Policy Sciences* 49, no. 3 (2016): 257-79.
- Cecchetti, Marcello. "La materia 'tutela dell'ambiente e dell'ecosistema' nella giurisprudenza costituzionale: lo stato dell'arte e i nodi ancora irrisolti". *Federalismi. it* 7 (2009): 1-32.
- D'Atena, Antonio. *L'Italia verso il "federalismo"*. *Taccuini di viaggio*. Milano: Giuffrè, 2001.
- D'Orlando, Elena. "Emergenza sanitaria e Stato regionale: spunti per una riflessione". *Osservatorio sulle fonti* 2 (2020): 1-18. <http://www.osservatoriosullefonti.it>.
- De Gregorio Hurtado, S., M. Olazabal, M. Salvia, F. Pietrapertosa, E. Olazabal, D. Geneletti, V. D'Alonzo, E. Feliú, S. Di Leo, and D. Reckien. "Implications of governance structures in urban climate action: evidence from Italy and Spain". *Basque Centre for Climate Change Working Paper Series* 2 (2014): 1-47.



- Diacò, Danilo, ed. *Produzione, trasporto e distribuzione nazionale dell'energia nei giudizi di legittimità costituzionale in via principale (2002-2015)*. Servizio studi Corte costituzionale, 2021.
- DiGesù, Jacopo. "Il riparto di competenze tra Stato e Regioni in materia di energia dal primo regionalismo alla clausola di asimmetria". *Italian papers on Federalism, Issirfa-CNR 2* (2020).
- Giovanardi, Andrea, and Dario Stevanato. *Autonomia, differenziazione, responsabilità*. Venezia: Marsilio Editore, 2020.
- Gores Sabine, Fallasch F., A. Siemons, M. Duwe, and N. Evans. "Turning Points for the Ambition of European Climate Targets. Getting granular on the process and identifying cornerstones for discussion". Berlin: Öko Institut and Ecologic Institute, 2020. <https://www.ecologic.eu/17472>.
- Hueglin, Thomas, and Alan Fenna. *Comparative Federalism. A Systematic Inquiry*. Toronto, ON: University of Toronto Press, 2015.
- Maddalena, Paolo. "L'interpretazione dell'art. 117 e dell'art.118 della Costituzione secondo la recente giurisprudenza costituzionale in tema di tutela e fruizione dell'ambiente". *Federalismi.it 9* (2010): 1-16.
- Magnifico, Laura. "Stato, regione o autorità di regolazione alla guida del trasporto pubblico locale?". *Osservatorio AIC 1* (2013):1-14
- Mainardis, Cesare. "Competenza concorrente e fonti secondarie nel 'governo' delle energie rinnovabili". *Osservatorio sulle fonti 3* (2020). <http://www.osservatoriosullefonti.it>.
- Mangiameli, Stelio. "L'ambiente' nel riparto di competenza tra Stato e Regioni (dalla configurazione di una materia, all'assetto di un difficile modello)". In S. Mangiameli, ed., *Giornate teramane sull'ambiente, Atti del convegno di Teramo, 23-24 ottobre 1996*. Milano: Giuffrè, 1998.
- . "Il Titolo V della Costituzione alla luce della giurisprudenza costituzionale e delle prospettive di riforme". *Rivista Associazione Italiana dei Costituzionalisti 2* (2016): 1-36.
- Masson-Delmotte et al. *Report of the Intergovernmental Panel on Climate Change Global Warming of 1.5°C*. IPCC Special Report, 2018.
- Mengozzi, Marta. "Il 'Governo del territorio' e la sua intersezione strutturale con la 'tutela dell'ambiente': linee di continuità e di evoluzione". *Federalismi.it 15* (2017): 2-30.
- Michaelowa, Katharina, and Axel Michaelowa. "Transnational Climate Governance Initiatives: Designed for Effective Climate Change Mitigation?". *International Interactions: The Comparative Politics of Transnational Climate Governance 43*, no. 1 (2017): 129-155.
- Nevola, Riccardo, ed. *Giurisprudenza costituzionale dell'anno 2020*. Servizio studi Corte costituzionale (2021): 497-504.
- Palermo, Francesco. "Il ruolo dello Stato nel regionalismo asimmetrico" *Federalismi.it 15* (2019).
- Rizzo, Marta. *La materia "energia" e la competenza legislativa stato - regioni*. Napoli: ESI, 2013.

- Rolla, Giancarlo. “L’evoluzione dello Stato regionale italiano: dalle riforme centrifughe al fallimento di quelle centripete”. *Fundamentos: Cuadernos monográficos de teoría del estado, derecho público e historia constitucional* (2019): 89 ss.
- Ruggiu, Ilenia. “Il sistema delle conferenze ed il ruolo istituzionale delle regioni nelle decisioni statali”. *Le Regioni 2-3* (2011): 529 ss.
- Santopietro, Luigi, and Francesco Scorza. “The Italian Experience of the Covenant of Mayors: A Territorial Evaluation”. *Sustainability* 13 (2021): 1289. <https://doi.org/10.3390/su13031289>.
- Sparber, W., G. Niedrist, M. Alberton, M. Zebisch, D. Habicher, M. Castagna, G. Chersoni, R. Fedrizzi, J. Höllrigl, R. Lollini, D. Moser, F. Palermo, M. G. Prina, U. Tappeiner, F. Trentin, A. Troi, R. Vaccaro, D. Vettorato, P. Zambelli, and F. Windegger. *Scenari per l’Alto Adige verso la neutralità climatica*. Bolzano/Bozen: Eurac Research, 2022. <https://www.eurac.edu/doi/10-57749-jz3s-j725>.
- Torney, Diarmuid, and Roderic O’Gorman. “Adaptability versus certainty in a carbon emissions reduction regime: An assessment of the EU’s 2030 Climate and Energy Policy Framework”. *Review of European, Comparative & International Environmental Law* 29 (2020): 167–176.
- Trein, P., I. Meyer, and M. Maggetti. “The integration and coordination of public policies: a systematic comparative review”. *J. Comp. Policy Anal.* 21 (2019): 332-349.