

CHAPTER 1



The Roads before the Motorways

Road Policies in Italy in the Second Half of the 1800s

When compared with other European nations, mid-1800s Italy had a noticeable deficit in its roads network, which was accentuated by the peninsula's complex orography. It was a country that had achieved national unity late, in 1861. Even more, the development of a coherent roads network program was prevented by the contemporary railway frenzy, and by the scarcity of resources.¹

The lack of a systematic project of road growth and improvement did not mean there was a lack of initiatives: The political establishment of the time saw the theme of transport as one of the fundamental aspects of nation building, but efforts were disjointed, without a precise policy, and too often had no real effects. Naturally, the political and administrative difficulties caused by unification also significantly impacted the roads sector. A few years after unification, in 1865, the country had new national laws on the Italian administrative system, which had a double impact on the roads field. First, there was a new systemic framework for the public works sector, including a precise listing of the roads, which would be categorized as state, provincial, and municipal roads (in its turn derived from the eighteenth-century French model). Second, there was a clear definition of the activities of the local authorities for the whole country: in particular, the provinces acquired a broad administrative autonomy.²

The 1865 roads classification took a long time to complete. It was a multifaceted operation that involved municipalities (although not all would prepare the lists), provincial councils, and the ministry of public works.³ The results varied according to the different regions: Lombardy and Veneto had a dense roads network; Piedmont and Emilia-Romagna had a reasonable provision. Elsewhere, from Liguria to the south of the country, the roads network was mostly limited to several major road axes, and almost completely lacked local roads.⁴

The national government undertook several initiatives to improve the situation, promoting road construction, particularly at a local level. The first example of this was the 1868 law no. 4613, on the "Compulsory

construction and renewal of municipal roads." The intention of the legislature was to rectify the lack of resources and willingness that characterized the roads sector at its weakest administrative level (weak both in resources and technical competence), that is, the municipalities. The law instated state and provincial subsidies, a special municipal tax to raise funds, the re-establishment of feudal *corvée* obligations, and army deployment to defend construction sites (or to control the workers?), even requiring the soldiers to provide manual labor for building. The compulsory roads law was designed to reproduce the effects of France's 1836 law "*sur les chemins vicinaux*," which had allowed the transalpine country to endow its entire territory with an efficient roads network.⁵

In 1869 another law was approved, for the "construction of national and provincial roads in the southern mainland provinces," to fortify the provincial and national roads in the Italian south and make those areas accessible: an answer to the peasant riots against unification, which lasted for a decade.⁶ In 1875 and again in 1881, further interventions were approved to construct a substantial number of provincial roads. The "Law 30 May 1875 for the construction of roads in the provinces most lacking" approved state spending of 47 million lire (about USD 220 million today), to be used for the construction of sixty-two provincial roads. Almost this entire sum was destined for the south, and the construction was entrusted directly to the state, with responsibility passing to the provinces once the necessary works were completed. The subsequent "Law 23 July 1881 authorizing spending of 225,126,704 lire (about USD 1 billion today) for the construction of new special roads and hydraulic works in the fifteen years from 1881 to 1895" abundantly added to the amounts dedicated to provincial road construction outlined in the 1869 and 1875 laws. In addition, it raised the annual amount destined for compulsory municipal roads from 3 to 4 million (USD 13 and 17 million respectively) and detailed a hefty list of road works.

Despite the severity of the laws, the broad substitutive powers, and even the direct assumption by the Ministry of Public Works of the territorial works, the road sectors could not change the state of things merely through decree. The inertia of the various actors involved in the road construction program—starting with the municipalities and provinces—could in fact slow down the projects discussed in Rome beyond measure.

Beyond the historical hypotheses that we can advance, we should not forget that despite the action and even energy displayed by the legislators with the various laws, an inherent contradiction within the sector weakened their fervor. As in the pre-unity regulations, the 1865

law of administrative unification stated that if a railway ran parallel to a national road, the latter would be officially downgraded to a provincial one. Given that in the second half of the 1800s, Italy was in the grip of railway fever, it is obvious that the state was continually ceding tracts of national road to the provincial administrations—unbalancing the scales—and progressively reducing its own commitment in the roads sector. At the same time, while the number of national roads decreased as they were assigned to local authorities, the state, using the savings obtained, was financing the same provinces now responsible for the devolved roads. So on the one hand, the state assigned the fundamental function of long distance transport to the trains, but at the same time, through new laws and regulations (which were as draconian as they were unrealizable), it recognized that the roads were an essential element for national cohesion.

In other words, blinded by the railway myth but obliged to act upon roads, the national ruling class oscillated visibly between the desire to abandon the entire sector to local authorities *tout court* and the firm desire to finally open the territory to mobility (and control). The single—ambiguous—way out was to involve the municipalities and the provinces in the roads sector even more dramatically. This explains the abundance of regulations, the redundancy of the laws, and the increase in roads listed as needing specific interventions. It also explains the state subsidies to the provinces and municipalities, which were necessary to stimulate local authorities that were either reticent or lacking in means.

The Roads Problem between the 1800s and the 1900s

While the first decades after national unity in 1861 can be seen as the height of state action in the roads sector, 1894 saw the approval of law 338. This law indefinitely suspended the application of regulations for compulsory roads, defaulting on any support for local roadways. This did not mean that the minor municipal and rural roads were in good condition, or that the municipalities were able to find the resources to carry out the minimal works that everyone hoped would be completed. Rather, the push for works and the support of the provincial and municipal authorities that had persisted through the unification phase had abated. In addition, the law on compulsory municipal roads “had been a semi-failure, despite the pressure exercised by the specifically created intricate bureaucratic organization. Between 1869 and 1904, only 22,158 kilometers of these roads were realized: very few, if you think that . . . calculations indicated that to match France and England they needed

to construct 257,000 kilometers, and just to raise all of Italy to the Lombardian level, 121,000.”⁷

The vast implementation difficulties that faced the 1868 law on compulsory roads—and that made the results so tenuous—were already evident at the time.⁸ But the needs at the base of the law, that is, the insufficient quantity and quality of the Italian roads network, still had not been satisfied.

Overcoming the political crisis at the end of the century, in 1903 parliament approved a new tool to support municipal roads. It enacted a law for the construction of roads connecting inhabited centers with the railway stations,⁹ a support that was more precise and specific in its aims. The objective of the law was not the generic construction of local roads, and certainly not rural ones, which were the focus of the first attention of journalists and deputies,¹⁰ but rather the realization of roads between the principal inhabited centers and the closest railway stations. It was an apparently modest objective, somewhat defeatist regarding the more generous intentions of the 1860s and 1870s laws, but in reality it contained precise motives of realism: as Carlo Cattaneo—one of the most brilliant (and critical) observers of the Italian public works initiatives—had indicated as early as the 1840s, the existence of feed roads to the railway stations was one of the conditions of success of the railway.¹¹ The 1903 law on access roads to the railway stations “established that the municipalities that within eight years built roads or parts of roads to access their namesake railway stations would have the right to a subsidy from the state, equal to half of the effective costs sustained, and a subsidy from the province, equal to a quarter. . . . Equal subsidies would be granted to municipalities that constructed access roads to the nearest railway station, as long as the road was not longer than 25 kilometers in length, and comprised the existing roads for an eventual connection.”¹²

The more modest objectives, with their precisely defined ambitions and procedures, did not however mean that brilliant results were achieved. As in the past, the intentions were tied up in a thousand operative difficulties, such as the traditional diffidence of the local authorities to activate state contributions, the customary reluctance by the central authorities and their agents to enact the substitutive procedures, and the lengthy realization times. The disagreements between ministry, provincial councils, and municipal administrations over the various aspects of the law multiplied, muddying a mechanism that was supposed to be rapid and efficient.

The data shows that between 1904 and 1911 the increase in the roads network was, in total, little over 10,000 kilometers, of which 1,600 were

in the south.¹³ The situation, in general difficult, was untenable in the south of Italy, where the municipalities could not contribute even a quarter of the total costs of road construction, as the law required. To try to offer solutions for the problem, in 1904, 1906, 1908, and again in 1910, special laws were approved for Basilicata and Calabria, the regions with the biggest problems. The laws for aid were intended to be temporary and limited, but the disastrous conditions of the infrastructure and the multiple difficulties of the plans inevitably prolonged the period of help.¹⁴

Although the Italian road system referred to the classical French model of three-tier networks (e.g., state, province, and municipality), in the first years of the 1900s the national political debate moved toward radical modifications of the administrative mechanisms. The constant and gradual reduction of the roads managed by the state (between 1866 and 1910 the length of national roads went from 14,000 to a little over 8,000 kilometers)¹⁵ was matched by the equally constant and gradual increase of the provincial roads (which went from just under 10,000 to more than 40,000 kilometers in the same period). This led to the idea that the best configuration could have been to delegate all care of the roads to the provinces.

After an inconclusive governmental attempt in 1902, it was Giolitti's ministries that took on the first research aimed at reform: in 1909 the Minister of Public Works, Pietro Bertolini, promoted a commission and "a dedicated administrative study" on the management of the public roads network.¹⁶ For the first time, a broad technical and political debate was opened on how to manage the roads network and it strongly advocated the idea that the state could completely abandon the sector. In 1911 a law was proposed (but not approved) to delegate the responsibility for all extra-urban roads to their respective provinces. The provinces would have received a state contribution of 1,200 lire (about USD 4,500 today) for every kilometer of road they took responsibility for, while the municipalities would have paid a contribution of 200 lire (i.e., USD 700).¹⁷

Partly due to the pressure from the *Unione delle province*—the association of Italian provincial administrations—the reform project involved the national government even more deeply, with three new commissions announced for 1912 by the new minister of public works, Ettore Sacchi.

Regarding *road management*, the board of directors [of the Union] advises, if not the realization of immediate reform, then at least a display of conviction by the government regarding the necessity of reforming the

legislative system governing roads. Three ministerial commissions have been created with the relative official participation by Union representatives, with the objective of studying:

- a) *The revision of the list of provincial roads.*
- b) *The legislation on private roads. . . .*
- c) *The assumption of management of the national roads by the provinces.*

The third ministerial commission is to do preparatory work, which is currently done by the central government offices, the district offices of the Civil Engineering Office, and the collaboration of the interested individual administrations. The questionnaire printed at the request of the Ministry of Public Works demonstrates the evident intention to study the problem with the aim of attributing the *cura viarum* to a single entity, without, however, that entity being financially burdened.¹⁸

In the cited questionnaire, the ministry expressly asked the provincial administrations if and how they could manage the national roads. This pleased the provincial administrations, as they would finally see the entire roads network entrusted to them: the valid reasons—practical, financial, and organizational—that supported their request actually concealed other motivations of a political nature. Becoming the sole, total manager of the roadways meant that the provincial authorities would have an irreplaceable infrastructural role and that their political weight would grow accordingly, assuming a decisional function on a national scale.

The hopes of the provinces were well founded, as in June 1912 the prime minister, Giovanni Giolitti, leaned in their favor on the theme of roads during a presentation to the Chamber of Deputies.

I believe that in substance, the best solution would be this: that everything should be a provincial road, that is, that the state cedes even the national roads, passing to the provinces what they are now spending on national roads; and that the provinces provide for the entire roads network by reallocating the spending governed by law. If we had just one roads network, the total cost would be a lot less, because we would not have three technical bodies: the state, the provinces, and the municipalities, which must provide this service; and also, with unified maintenance, we would have a more perfect roads network.¹⁹

It should not be forgotten that this proposal came from entities usually endowed with efficient maintenance services: many provincial administrations were at the avant-garde of the roads sector and had developed competences and functions that were comparable to the ministerial ones. At the frontline of this struggle were those adminis-

trations that had experienced strong social and economic demands, particularly for modernization of the roads network: Milan, Turin, Rome, Naples, almost all of those of the Po valley, followed by several in southern Italy.

The parliamentary inertia, the widespread resistance to the dispersion of decision-making processes, the heedless opposition of the ministerial apparatuses—which were fearful of losing control of the sector—led to doubts over the effective managerial capacity of the provincial authorities, above all in southern Italy. In the words of Minister Sacchi, “while on the one hand it’s doubtful if *all* the provinces are able to assume such a serious duty, on the other, we would like the important innovations to be surrounded with effective guarantees to ensure the integrity of the roads network, given the difficulty of the problem, which various commissions have studied, without finding sufficient data for an appropriate solution.”²⁰

Once again, it was the old problem of a central state that was inclined to entrust the roads to local authorities, but that at the same time feared the loss of control over a central aspect of territorial management, above all in those places where the technical capacity and financial resources were the weakest. The entire process of delegation was additionally hampered by the officials of the civil engineering office. The work of the 1912 commissions ordered by Sacchi was conditioned by ministerial bureaucracy, which slowed the pace of the fact-finding surveys prepared by the minister—or, at times, simply prevented them altogether.²¹

Leaving aside these contradictions, the reform projects all had a small common denominator: the awareness of the impasse in which the roads sector found itself. This meant that, following the end of the conflict, the terms of the discussion in 1919 were the same as they had been in 1898, when a solution for the roads sector had been loudly called for in the course of the first meeting of the provincial representatives.²² However, the war, economic development, the request from the local authorities to “devolve,” and finally, the establishment of the Fascist regime made the question much more complex than it had been at the start of the 1900s, leading to new and unexpected solutions.

The Postwar Proposals for Decentralization

Starting in the 1920s, the development of motoring, although limited, called for profound changes to the roads, requiring—including in Italy—radical evolution of the technology used (cement or bitumen instead

of dirt roads or macadam),²³ modification of routes, reduction of level crossings over railways, and the construction of bypasses around built-up areas. At the same time, a new perception of roads as public spaces took hold, as the types of users were transformed and regulations of use became increasingly stringent.²⁴

The roads sector reform proposals advanced in the early 1920s not only involved the administrative aspects, but they also touched on technical elements (curve adjustment, incline correction, widening). The drive to modernize the roads—which in the preceding decades had come firmly from several cycling associations, such as the Italian Touring Club (TCI), or from some of the provincial administrations—was by now the expression of a heterogeneous pressure group that included the TCI, the ACI (Italian Automobile Club), the motoring industries, the rubber industry, the petroleum and cement cartels, and the most relevant contractors for public works.²⁵ The Italian automobile and truck market needed to be supported by adequate infrastructure: improvements to the roads network were claimed to be indispensable for a broader modernization of the Italian transport system.

These were also the themes of the “Postwar Central Commission,” established in 1918, which contained a sub-committee for “Communication and transport,” presided over by Senator Maggiorino Ferraris. Motoring had become one aspect of the roads problem, and therefore “brought to the attention of the sub-committee one of the most recent and appealing aspects of progress favoring rural Italy: motor services, which have had such gratifying development in so few years.”²⁶ After celebrating the advantages of the automobile, the report noted how the development of motoring put “the importance of roads for the national economy into perspective.” The increase required “prompt, systematic, decisive measures, partly because Italy, in its entirety, has not yet achieved the roadways necessary for its economic progress.”²⁷

In January 1920, in keeping with the choices of his predecessors (and following the indications of the Postwar Central Commission), the Minister of Public Works, Edoardo Pantano, ordered the umpteenth commission study. The study would “take into account the variations occurring in the traffic currents, the development of mechanical traction, and the widening of the state borders and the changed military needs; examine the national roads network and propose how to make it a systematic asset that better corresponded with current needs, also studying the eventual modifications to the regulations in force for the classification of the roads; and where it is deemed opportune, also study modifications to other regulations on the laws for public works, concerning provincial and municipal roads.”²⁸

The principal work of the commission was therefore to reformulate the regulations, with particular attention to technological progress, and to formulate proposals to modify legislation regarding local roads, envisioning, when appropriate, provincial management of the state network. The delegation of functions from the state to the local authorities—that is, “decentralization” and “devolution” in the terms of the day—remained the main option.²⁹

Caught between centralization and decentralization and between preexisting infrastructural requirements and limited resources, and immersed in the postwar political crisis, the debate on the roads network was confused and contradictory. The oscillating policies were unable to clarify a clear line of action for the government, parliament, and the various public actors involved. This ambivalence—which will be described in its essential details shortly—mirrored the more general state of confusion of the political class, unable to overcome the problems that had broken out during the global conflict. The country was by now embedded in the spiral that would carry it into the fascist dictatorship.

While the work of the Pantano commission continued, the decree of 19 November 1921 declared it possible for provincial administrations to substitute the public works office for national roads maintenance throughout the entire kingdom. In other words, the result hoped for by the provinces had been achieved, with the only—understandable—constraint being the ministerial agreement. In fact the delegation of national roads maintenance to the provinces never occurred; additionally, as the provincial representatives bitterly noted, the plans were opposed by the ministerial officers. These officers actually had opposing intentions: to subsume many provincial roads into the national scheme, with a ministerial structure governed by them to look after it all.³⁰ But while the public powers and their bureaucracy were involved in a bitter battle, private operators were not standing still. In 1921 the engineer Italo Vandone—director of the Experimental Roads Institute of the TCI and appointed by the Touring Club to the ministerial commission³¹—published a broad article in which he proposed subdividing the nation’s roads into four classes. Vandone abandoned the traditional scheme that assigned road maintenance based on the proprietary entity. He imagined a new subdivision, based on the importance of the road, estimating the distribution of kilometers in the Italian network among the various classes.³² His idea was to break from the classical ternary subdivision from 1700s France, and instead introduce a system closer to the English one. In the United Kingdom, Vandone noted, the counties were the appointed maintainers of all the roads, but the national government was present through its technical supervision and a contribution to the costs.

The TCI proposal presented political and organizational elements of particular interest. Arranging a subdivision by class (type) and not by ownership would result in modernizing reform for the sector, overcoming the refusals of the public works office—because it did not directly target the responsibilities of the office. It would also provide an exit from the debate over which local authority—province versus region (the latter were likely to be created)—should be responsible for the roads. The success of the English roads reform of 1909 and 1919, with the formation of a Road Board and then Road Department, as well as the American legislation on highways in 1916 and 1921,³³ influenced the ministerial commission appointed in turn by Minister Pantano. In 1923, this body concluded its activities with a proposal to the ministry to cede all extra-local roads to the provincial administrations and to create a new roads classification with four categories.

The government was pressured by conflicting proposals, both of which had rich material and symbolic interests. Forced to move forward for political motives and unsure of which choice to make, they instigated a reform in 1923 that was a masterpiece of ambiguity.

Pushing them to this choice was the force of several interests in play, outlined concisely above, but there was also the wavering of the first year of Mussolini's government. The authoritarian direction did not translate *sic et simpliciter* into a clear governmental orientation in the administrative area. Statolatry was yet to come, and meanwhile the fascist government made choices that followed the indications of the preceding government, accompanied by economic interventions of a strict free-trade mold.³⁴ Fascism, inasmuch as it subverted the democratic political system, was not yet a stably constituted regime. It has been noted that "the reforms that the fascist government made between 1923 and 1925 were, for the most part, only the realization of projects elaborated during the preceding liberal-democratic government, and were as such not inspired by concepts of centralization and nationalization."³⁵

In other words, the groundbreaking profile of the fascist government was tempered in the administrative field by inertia and a certain continuity with the past. So, in November 1923, when the reform of the roads sector was approved, accompanied by a new roads code, it reflected the work of the commission and the two decades of debate on the role of the state and the provinces in the roads sector, but at the same time it was burdened by the traditional doubts of state bureaucracy and the uncertainty of the government over ceding ground to subjects—in this case the local authorities—that fascism only partially controlled.

The 1923 Reform and Its Failure

After twenty years of debate and fifteen years of commissions and studies, on 15 November 1923, royal decree 2506 was issued, governing "Regulations for the classification and maintenance of public roads." It was also known as the "Carnazza decree" or "Carnazza law," after the minister of public works, the Sicilian social-democrat Gabriello Carnazza. The selling point of the reform was that it abandoned the roads classification established in 1865 in favor of a new subdivision of the roads into four categories, following the English model. The maintenance of the first class of roads was entrusted to the state, with the option to delegate the task to the provinces; the second and third categories of roads were entrusted to the provinces, with the option for the Ministry of Public Works to take on the responsibility of maintenance; the fourth category of roads was entrusted to the municipality.

However, the law did not increase financing for the roads sector, imposing an insurmountable constraint on the program to modernize the roads. Article 21 of the decree established that: "'No increase in allocation can be made at the expense of the state balance for expenses relative to the implementation of the above regulations,' that is, the state, with the same amount of 58 million [about USD 65 million today] that it spent on maintaining around 10,000 km of national roads with not very intense traffic, now proposed to provide for maintaining all the most important roads in the kingdom."³⁶

Two elements further tangled the already complex situation. The reform addressed only the maintenance of the roads, expressly leaving the old 1865 regulations concerning the *ex novo* construction of roads for motor vehicles intact. This was not a secondary question because, for example, the rectification of a curve or enlargement of a lane could be considered either as maintenance interventions or as new construction. This could have led to infinite disputes among the various public authorities about how to classify such interventions, and who should consequently bear their cost. In addition, the 1923 law subdivided maintenance expenses for every class among the various entities (state, province, and municipality), with the consequent imaginable increase and superimposition of bureaucracy.

The inherent contradictions and byzantine procedures formulated by the reform were the direct consequence of a partial and imperfect decentralization, and the highly superficial level of attention that the fascist government paid the roads problem. In other words, the Carnazza law was a bluff. The government found itself facing the deadline for the mandate of reorganization of public administrations set for

December 1923, and wanted to give the impression of a regime that was attentive to the transport sector and able to support developmental needs. Pressured by greater urgencies, the government reluctantly approved a reform that it had no intention of implementing, but that *seemed* decisive for a few years. Confirming this deceptive front, the government never promulgated the regulations of the reform, nor the planned law on the construction and maintenance of the roads.³⁷

Despite their unfinished and ambiguous nature, the 1923 regulations represented a crucial passage in the history of Italian roads, which led to important decisions in the reallocation of public funds. The fundamental innovation was the retraction of the ban—existent since 1855 and reiterated in 1865—on national roads running parallel to railway lines. The new policy, an inevitable development in road transport, aggravated the disparity between northern and southern Italy. “It must be remembered that, while the railway was more developed in the richer provinces, the national roads barely existed there at all. . . . With the new law, many of the once-national roads declassified as provincial now became part of the first class, with the consequence that the state contributed to 50 percent of their maintenance.”³⁸ In other words, given that the local resources remained generally constant, there was a net *increase* in infrastructural investments, thanks to the state contributions provided for in the new law. However, “in the poorest provinces, where the railway network was less developed, the exact opposite occurred.”³⁹ In substance, the 1923 law favored the richest areas and penalized the poorer areas, aggravating the infrastructural problems of particular geographic zones, those that had always had fewer resources.⁴⁰

Partly due to the disparities created, the government decided to take time and a provisory regime was settled until 20 June 1925. This administrative confusion and the power vacuum in the roads sector opened ample space for private interventions, as we will see in the next chapter.

Notes

1. For the history of 1800s Italian roads, see Franco Borlandi, *Il problema delle comunicazioni nel secolo XVIII nei suoi rapporti con il Risorgimento italiano* (Pavia: Soc. an. Treves Treccani Tumminelli, 1932); Guido Guderzo, *Vie e mezzi di comunicazione in Piemonte dal 1831 al 1861. I servizi di posta* (Torino: Museo Nazionale del Risorgimento, 1961); Mario Di Gianfrancesco, *La rivoluzione dei trasporti in Italia nell'età risorgimentale. L'unificazione del mercato e la crisi del Mezzogiorno* (L'Aquila: Japadre, 1979); Alberto Mioni, *Metamorfosi d'Europa. Popolamento, campagne, infrastrutture e città 1750–1950* (Bologna: Compositori, 1999). See also Lando Bortolotti, “Viabilità e sistemi infrastrutturali,” and Massimo Moraglio, *Strade e politica* (Alessandria: Edizioni dell'Orso, 2003).

2. See the volumes edited by Antonio Amorth, *Le province*, and by Aldo Sandulli, *I lavori pubblici* (both Vicenza: Neri Pozza, 1969). See also Ettore Rotelli, *Il martello e l'incudine. Comuni e Province fra cittadini e apparati* (Bologna: Il Mulino, 1991); Paolo Aimo, *Stato e poteri locali in Italia 1848–1995* (Roma: Nis, 1997); and Guido Melis, *Storia dell'amministrazione italiana: 1861–1993* (Bologna: Il Mulino, 1996).
3. The national roads were classified in two separate moments with the decree of 17 November 1865, n. 2633, and 22 April 1868, no. 4361. The provincial roads took longer, and even after 1870 the work of listing the roads had still not been completed by many provincial boards.
4. On the repartition of the roads network, see *La strada in Italia dall'unità ad oggi, 1861–1987* (Roma: Anas, 1987), 25 et seq.
5. See Giulio Capitani and Giusto Emanuele Garelli della Morea, "Strade ordinarie," in *Il Digesto Italiano, volume XXII, part II* (Torino: Utet, 1895), 641–869.
6. See Law 27 June 1869, no. 5147.
7. Lando Bortolotti, "Viabilità e sistemi infrastrutturali," 339–340.
8. On the application of the 1868 law on compulsory municipal roads see Giovanni Bobbio, *Le strade ordinarie nella legislazione italiana* (Torino–Roma: Roux and C., 1894). See also Capitani and Garelli della Morea, "Strade ordinarie."
9. Law n. 312 of 8 July 1903, "Sussidio ai comuni per costruzione di strade d'accesso alle stazioni ferroviarie."
10. See Giovanni Battista Ceresetto, *Le strade vicinali* (Torino: Utet, 1894).
11. See Carlo Cattaneo and Giovanni Milani, *Ferdinandea. Scritti sulla ferrovia da Venezia a Milano 1836–1841* (Firenze: Giunti, 2001).
12. *La strada in Italia dall'unità ad oggi*, 81.
13. Bortolotti, "Viabilità e sistemi infrastrutturali," 340.
14. On the kilometers of road constructed and the entirety of the legislative interventions, see *La strada in Italia dall'unità ad oggi*, 83 et seq.
15. *Ibid.*, 85 et seq.
16. See Sileno Fabbri, *Il problema delle strade in Italia* (Milano: Coop. Graf. Operai, 1927), 43.
17. The text of the proposal of the law, advanced by Deputy Rosario Cutrufelli, is reported in full in *Atti della sesta assemblea generale dell'Unione delle Provincie. Milano 20–25 aprile 1913* (Roma: Coop. Sociale, 1913).
18. *Atti della quinta assemblea generale della Unione delle Provincie d'Italia, in Firenze dall'11 al 13 ottobre 1912* (Roma: Coop. Sociale, 1912), 38, italics in original.
19. *Discorsi parlamentari di Giovanni Giolitti, volume III* (Roma: Camera dei deputati, 1954), speech to the Chamber of Deputies on 19 June 1912, 1526.
20. Cited in Fabbri, *Il problema delle strade in Italia*, 44, italics added.
21. See *Atti della quinta assemblea generale della Unione delle Provincie d'Italia*, 231 et seq.
22. See *Primo congresso nazionale delle rappresentanze provinciali* (Torino: s.e., 1898).
23. See Gijs Mom, "Inter-artifactual Technology Transfer: Road Building Technology in the Netherlands and the Competition between Bricks, Macadam, Asphalt and Concrete," *History and Technology: An International Journal* 20, no. 1 (2004), 3–23.
24. For a critical appraisal of the road's conquest by cars, see Peter Norton, *Fighting Traffic: The Dawn of the Motor Age in the American City* (Cambridge, MA: MIT Press, 2008).

25. Federico Paolini, *Un paese a quattro ruote. Automobili e società in Italia* (Venezia: Marsilio, 2005).
26. "Commissione Centrale per il dopoguerra. I problemi economici urgenti. Voti e proposte della Sottocommissione economica," *Giornale del Genio Civile* (1919), 49–96, here 69.
27. Ibid.
28. 27 January 1920 decree from the Ministry for Public Works, cited in Fabbri, *Il problema delle strade in Italia*, 12.
29. See Roberto Ruffilli, *La questione regionale in Italia dall'Unificazione alla Dittatura 1862–1942* (Milano: Giuffrè, 1969).
30. See Unione delle Province d'Italia, *La provincia nell'ordinamento amministrativo moderno. Relazione e statistiche dimostrative* (Roma: F.lli Pallotta, 1923).
31. On the role of Italo Vandone see Jelmoni, "Il 21 settembre 1924, la prima autostrade nel mondo," 17.
32. Italo Vandone, "Per una radicale soluzione legislativa dei problemi stradali," *Le strade* 7 (1921), 219–225.
33. Cf. Bruce E. Seely, *Building the American Highway System: Engineers as Policy Makers* (Philadelphia: Temple University Press, 1987), particularly chapters 4 and 5.
34. See Vera Zamagni, *The Economic History of Italy* (Oxford: Clarendon Press 1993); Vera Zamagni, *Lo Stato Italiano e l'Economia. Storia dell'intervento Pubblico dall'unificazione ai Giorni Nostri* (Firenze: Le Monnier, 1981); Renzo De Felice, *Mussolini il Fascista. I. La Conquista del Potere 1921–1925* (Torino: Einaudi, 1966).
35. Leopoldo Mazzarolli, "Evoluzione storica degli organi istituzionali della Provincia con particolare riguardo al presidente della Giunta Provinciale," in *Le province*, ed. Antonio Amorth, 91–118, here 114. See also Germà Bel, "The First Privatisation: Selling SOEs and Privatising Public Monopolies in Fascist Italy (1922–1925)," *Cambridge Journal of Economics* 35, no. 5 (2011), 937–956.
36. Albino Pasini, *Relazione a S.E. il ministro dei Lavori pubblici on. avv. Giovanni Giuriati sul problema della strada moderna* (Milano: Stamperia Capriolo e Masimini, 1925), 59.
37. Article 22 of the Carnazza reform stated that the national government was authorized to issue a consolidated law on the materials.
38. Fabbri, *Il problema delle strade in Italia*, 15.
39. Ibid.
40. MR Buccella, "Le autovie nel sistema dei trasporti," *Giornale degli Economisti e Rivista di Statistica* 68, no. 12 (1927), 726–748, here 747.