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GEOPOLITICS OF WASTE  
ACTORS, SCALE AND DECISION-MAKING PROCESSES  
IN THE SITING OF TWO INCINERATORS  
IN THE PROVINCE OF TORINO

*Introduction.* – The issue of waste management represents a critical issue that cyclically is brought back up to the attention of the media, of the political debate and of the civil society. In Italy in particular, depending on the situation and the period, the images of our cities besieged by “mountains of waste” due to collection and disposal inefficiencies, and the following citizen’s demonstrations arouse noise, concern and disdain. The “waste crisis” is undeniably the offshoot of political and local administration shortcomings, but it also reflects the limited capability of the Government (in its various emanations) to intervene effectively in situation exacerbated by collusion between politics and organized crime (D’Alisa, Burgalassi et al. 2010; Legambiente, 2014a).

This article does not intend to reconstruct the complex circumstances underlying this crisis, nor is possible to make generalisations and extend local situation to all of the national territory. Italy, next to cases of environmental and social crisis, often quite close to waste scandals, records praiseworthy examples of urban waste management, with high percentage of sorted waste collection and recycling rates comparable to the international standards (ISPRA, 2014) <sup>(1)</sup>. However, even in the most virtuous cases, waste management and related decisions are always a thorny, high problematic issue, with often a tendency towards *radicalisation* expressed in the form of conflicts (hidden in some cases and more evident and heated in others) that overstep the local dimension and mobilize public and private actors at different territorial scales (Faggi, Turco, 1999; Lesbirel, Shaw, 2005).

Following this perspective, the present work retraces and discusses a spatial-temporal cross-section of the waste management in the Province of Turin in the period 1998-2011 <sup>(2)</sup>. We are talking of a

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(1) Campania is a prime example: in a region that since twenty years is facing an environmental crisis related to waste management (Corona, Franzini, 2009), there are small municipalities with high diversion rate and collection and disposal systems among the most efficient in the national context (Legambiente, 2014b).

(2) The case of the Province of Torino is part of a much broader international research project, dubbed DESCRI - *Décider en situation de crise: gestion des déchets, conflits et concertations*, coordinated by the French geographer Patrice Melé, in which an international research team comprising representatives of the University of Tours, the University of Torino and the National Autonomous University of Mexico City participated. The aim of the project is to analyse international case studies on the topic of waste-related conflicts according to a common interpretative framework that considers the influence of territorial, time and legal dimensions on the evolution of decision-making processes (Bobbio et al., 2016 forthcoming). From the methodological point of view, the reconstruction of the case study of Torino has been conducted thanks to a campaign of semi-structured interviews to informants (public officials politicians of the Province of Torino and of the involved Municipalities, managers of waste management company, and spokespersons of local opposition movements and of Legambiente) in addition to collection and analysis of published and unpublished works (plan documents, studies of feasibility, environmental impact analysis and LCA, texts of disputes and document published by environmental movements and local committee).

period of great interest from the point of the social-political-territorial analysis, in so far it sees the succession of two decision processes – with a very different appearance – to localize two incineration plants on the provincial territory (one it has been realized and it is actually working while the second has crossed a long phase of decisional impasse). Around to these decisional processes, is possible to observe the continuous succession and overlapping of complex political and social strategies by the institutional (and not) stakeholders, that goes from the conflict to the concerted action and produce a “changing territoriality”, according to the definition of Bertonecin and Pase (2006).

To offer insights into this kind of situation, it is not enough to adopt fixed scales of observation, based on the juxtaposition between the sovra-local decisions and the local actors reactions, as per usual from some stereotyped and superficial interpretation of social-territorial conflicts. Differently, the perspective here adopted, make reference to the international debate about the critical revision of the use of “scale” as a fixed and hierarchical epistemological structure (Marston et al. 2005) and looks at the complex modalities with whom the different stakeholders use/abuse the territorial dimensions and the spatial scales as tools in pursuit of political driven results and, indirectly to consolidate their positions and obtain advantages in the economical, environmental and social arena. It deals with, to all intents, reconstructing and observing geopolitical strategies, implicit or explicit, that focus on the territory (and its representation, organisation and reification – by using Turco’s subdivision – at the different scales) as the core of the decision-making disputes and that, above all, and produce new territory and scale of action as the effect of the social-spatial relationships. It means the reconstruction, for the different actors involved in the process, the construction of policies at variable scale, starting from the definition of geographical scale of Smith (1992, p.66, 2000) as “the boundaries and bounds the identities around which control is exerted and contested”.

The paper is organized as follows. After a first digression about how the issue of waste management could be read as a geopolitical matter (paragraph 2), the paper enters into the merit of the case study of the Province of Torino by reconstructing the chronology of the two decision-making processes of siting the two incinerators (paragraph 3), and by proposing a reinterpretation according a geopolitical perspective (paragraph 4). The paper concludes by proposing ideas for future research initiatives in the field of social-environmental and territorial conflicts.

*The waste management as a geopolitical matter* - Decisions regarding the construction and siting of waste treatment and incineration plants or landfills often trigger fierce disputes and clashes not only between citizens and local administrations but also between different levels of territorial governance. This is one of the reasons why waste management is a highly complex *territorial issue* that oversteps merely (albeit delicate) environmental and health-related aspects: an issue that generates far-reaching re-visioning of relationships between politics, citizens and territory whereby the concept of territory is expressed considering all its possible connotations: from the more material (the spatial ambient in which waste is produced, stocked and disposed of, or as plant installation site) to the territory of administrative competencies and technical-functional partitions (corresponding, for example, to the

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various possible divisions of the territory into waste collection and disposal catchment areas); from the territory as a place in which to live, lived in and arrogated (also forcibly) by the resident population, to the territory as an expression of the strategies and relations of power between political actors who operate at different scales (Faggi, Turco, 1999; Osti, 2002; Esu and Sistu, 2003).

This nexus justifies a geopolitical reading of the “issue of waste” where the term geopolitical is not adopted a-critically, according to its undeniable evocative power (which has, however, seriously comprised use of the term) <sup>(3)</sup>. Rather, such use must be consciously inspired by those theoretical reflections that have revealed its utility as a critical key for interpreting reality and political phenomena, stressing their link with the territory (Reuber, 2000)<sup>4</sup>. Whether geopolitics is considered to be the expression of a relationship of strength between the different powers that act on a territory (according the Lacoste definition of internal geopolitics) <sup>(5)</sup>, rather than the confrontation of different imaginaries, rhetorical, identity representations of the world or even as the emergence of new political and social movements mobilised in territorial conflicts at different scales, as in various fields of research of critical geopolitics (Routledge, 1992, 1996; Ó Tuathail, 1998; Dodds, 2001), attention must always be focussed on the way in which political relations and relations of power continuously *produce territory* in a constant process of reformulation of the scales of action, confrontation and relationship between social and political partners (MacKinnon, 2010). According to Reuber (2000, p. 38) “the focal point of political geography changes to the examination of those geographies that are produced and reproduced by actors from varying positions of power”.

In recent years, a large swathe of literature has addressed the topic of territorial scales as a social construction through which actors produce territory and relational contexts (Cox, 1997) <sup>(6)</sup>. If the idea of scale as an intrinsic property of space, fixed and external to social processes, is abandoned, it is, therefore, the outcome of a process “that is always deeply heterogeneous, conflicted and contested. Moreover, spatial scales are never fixed, but are perpetually redefined, contested and restructured in terms of their extent, content, relative importance and interrelation” (Swyngedouw, 1997, p. 140). Therefore, the production of territory is the offshoot of geopolitical relations insofar as the actors exert their own *politics of scale* on the territory, that can reproduce scales already well-consolidated in social organization (e.g. the administrative network) or abandon these in order to produce new scales of relations, more conducive to the interests of the various political actors involved <sup>(7)</sup>. Although discussed and elaborated from a theoretical point of view, the reference to

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(3) John Agnew (2002) argues that a certain rejection of geopolitics stems from a-critical use of the term, as a self-evident, innocent and ingenuous concept. However, the fact of not using the term geopolitical does not imply that geopolitical behaviours and acts are no longer adopted in international relations and those inside various national States. For further reading regarding current use of the concept and its political and ideological implications, see also Murphy, Bassin et al. (2004).

(4) This interpretation of “geopolitics” has been at the base of Gaetano Ferro distinction between political geography and geopolitics, (This latter seen as policy of the environment, of the territory and of the international relations) (Ferro, 1994).

(5) Lacoste (2003) argues that the concept of geopolitics can be used to define the study of relations of power between various actors in a more or less defined territory where the actors comprise various figures from the State to political movements, social groups and so on.

(6) A number of authors have provocatively suggested that scale as an interpretative category of territorial organization should be abolished (Marston et al., 2000) as it encourages interpretation of political and social relations based on a priori contrapositions (e.g. between local and supra-local), overlooking the real nature of the relations of power between the actors.

(7) MacKinnon (2010) argues that a fundamental distinction exists between politics of scale and scalar politics insofar as the former express the scalar dimension of politics (i.e. the fact that certain policies or political relations are exercised at and privilege one or more scales)

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such spatial policies is still poorly used and under-used to analyse empirical cases. Nevertheless the use of the scale as a geopolitical tool is evident in the case of Torino, discussed in this article, in which siting of the first (and of a hypothetical second) incinerator has generated a continuous process of re-formulation of the reference territorial scales through redefinition of territorial partitions and continuous overlap of relational and decisional levels amongst the various types of actors.

Conflict offers a privileged view of the effects of these relations between politics and territory. In fact, conflicts with the population unleashed by siting of an “undesirable” infrastructure such as an incinerator or a landfill <sup>(8)</sup> can be motivated only partially by dubbing these as localist and assertive, usually labelled as NIMBY according to which “people have positive attitudes towards something until they are actually confronted with it, at which point they oppose it for selfish reasons” (Wustenhagen et al. 2007, p. 2685). A wide array of national and international studies (Kahn, 1994; Murdoch and Marsden, 1995, Emani et al, 1997; Bobbio and Zeppetella, 2003; Mengozzi, 2011) has demonstrated that these conflicts can be read and interpreted in a variety of different ways. Although the local dimension is certainly pivotal in explaining the development of social protest movements (Reuber. 2000) <sup>(9)</sup>, other scales, actors and interpretations have assumed considerable importance in settling the debate on conflicts, in particular with regard to the issue of waste (Davies, 2005). Examples include various studies that have focussed on analysing the arguments adopted by both opponents and supporters of a work highlighting, for example, the ability of those involved in the protest to harness alliances and synergies with actors located at other than local scales, with the aim not so much of protesting against a single case but against a certain more general vision of the problem at the origin of the conflict (Bobbio and Dansero, 2008).

In the case of waste, for example, what is being contended is almost never the individual work but rather the utility of the incineration plants or landfills, asserting the need for transition towards more efficient scenarios based on high percentages of sorted waste, on recovery and recycling of the materials, moving towards minimum thresholds of unsorted waste to be dumped/incinerated (Viale, 1995; 2008; Angelini, 2009).

This is considered a shortsighted view as the question of waste is first and foremost cultural, perpetuated by a throwaway mentality and consumerist approach to goods and products. In other words, an excessively technical vision based on the conviction that the problem can be solved by increasingly efficient, ever more sophisticated systems is challenged. Indeed, one of the criticisms

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while the second considers the way in which scales are continually created and produced by political action and relations without referring to pre-existing levels or arenas. Reference is made below to the second definition of the concept of politics of scale.

(8) The conflicts that have arisen regarding the siting of an infrastructural work concern not only the field of waste management but are comprised, more generally, amongst those territorial conflicts that concern various uses of the territory (from the construction of major transport infrastructures to the siting of energy production plants or recovery of nuclear residues and waste and other), all targets of different forms of protest and contestation.

(9) Consider, for example, the contribution of Political Ecology in analysing environmental protest movements and conflicts (although clearly distant from a NIMBY perspective). Renewed interest has been kindled recently in Political Ecology, in particular amongst geographers, legitimised by the fact that “key theoretical concepts in human geography – such as place, region and scale – have long been integral to political ecologists’ analyses of human-environment relations” (Neumann, 2009, p. 398). In particular, the concept of “terrain of resistance” (Routledge, 1992) clearly expresses the local matrix of conflicts stemming from contrasts between supra-local actors and resistance groups of various types and composition regarding access to local resources and ground use (strands of study that have gained ground in particular but not only in the Global South).

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made to incinerators and landfills is born from the possible interference between these infrastructures and the public authorities' interest of insisting on separate collection and recycling practices, if there is availability on-site other modes of cheaper disposal (Seltentirch, 2013).

On the other hand, the siting of an infrastructure need not necessarily be viewed as a negative phenomenon to be avoided. On one side, there are examples where incinerators are a disposal policy preferred than landfills and does not find particular opposition from the population. It is the case of the northern European countries (e.g. Austria, Belgium, Denmark, Germany, Netherlands and Sweden) where the rate of incineration exceeds or is close to the 50% of the total disposed waste and the use of landfills is almost non-existent (Ispra, 2014). On the other side, the management (through service companies) of landfills and incinerators can offer to public authorities interesting occasions for investment and earnings and, consequently, encourage a certain degree of territorial competition to host these. This is even truer at a time of a particular public authorities resources contraction in Italy and elsewhere. Managing a plant such as an incinerator could be interesting for various reasons: it involves production of energy that can be sold; waste collection companies pay a tariff for each tonne of waste conferred; an incinerator considerably reduces waste management costs for the municipality where it is installed which also has access to significant monetary compensation; lastly, government incentives may considerably boost income deriving from management of the plant <sup>(10)</sup>.

Also for these reasons, interpreting the decisional processes of waste policies as mere contraposition between fixed scales (for example, between local and supra-local scale) appears to be reductive and simplistic. Amongst others, environmental governance literature has demonstrated the fragility of decision-making processes with regard to the relationship between the different scales of territorial governance (Bulkley et al., 2003, Termeer et al., 2010): even where more or less sophisticated forms of participation are adopted (within what is defined in the European context as multi-level governance, introduced specifically to cater to the need to involve much broader interests in public decision-making), it is still difficult to get effective and, above all, unanimously shared results (Davies, 2005). Therefore, we consider useful to propose an approach to waste-related decisional processes and conflicts based not merely on reconstructing the conflicts, their causes and actors involved but considering the contraposition between public power and citizens and among scales.

Rather, we are interested in verifying that it is not possible to reason in terms of fixed scale when considering the issue of waste which involves not only one reference territory and actors that interact at the same time on multiple, different territorial scales, constructed more or less consciously by such actors through geopolitical type strategies and actions. The result is that the reference area of decision-making is never just one, but several opposite territorialities at different geographical scale are in place and they are built more or less consciously through geopolitical strategies and actions.

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(10) In Italy since 1992 there is an incentive scheme (called CIP6), which considers that the energy generated by an incinerator-generated can be assimilated to energy on from renewable sources. For a long time, incinerator management firms have been able to sell energy combustion process with a price around three times higher price than those who produce energy from conventional sources

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*Incinerators in the waste management policy of the province of Torino* <sup>(11)</sup> - In the last ten years, two very different decision-making processes regarding the siting of two waste incineration plants have been adopted in the province, located in North-West Italy and comprising the metropolitan area of the city of Torino. The debate regarding the need to install one or more incinerators in the territory of the province was triggered originally at the end of the 1990s following saturation and subsequent closing of the Basse di Stura <sup>(12)</sup> landfill, the largest in the Region located inside the city of Torino. In 1998, on the basis of the Provincial Plan, the Province (competent for waste management) forecast a 5% reduction in waste production, a concurrent up to 50% increase in separate waste stream collection and installation in its territory of three incinerators (located in a central position in relation to the three management areas of the Province) (Fig. 1) able to guarantee autonomous waste management. This plan marked the start of a complex decision-making process for siting of the first incinerator.

*1998- 2005: the first incinerator.* - The decisional process regarding siting of the first incinerator was characterised by the Province's decision to initiate a participative process (dubbed "Don't refuse to choose") open to local authorities (all Municipalities potentially affected by the incinerator) and with a broad consensus of institutional and technical actors (such as the agency for protection of the environment) <sup>(13)</sup>, in order to select a suitable and as far as possible jointly agreed site (Bobbio, 2002, 2003; Bonjean e Pilon, 2003, Lippi, 2008). The Province's decision to adopt a participative approach reflects its intention to avoid, as far as possible, being faced with an exclusively technical choice, inevitably obstructed or impeded by local oppositions. The process was intended to promote collective definition of decision-making criteria for selection, from a broad set of possible sites proposed by the Province, of the two most suitable sites to host the incinerator and a service landfill <sup>(14)</sup>. The decision-making process, which lasted 17 months, resulted in identification (after various screening phases) of two sites (Volpiano and Chivasso, North of Torino) in December 2001.

Despite various not particularly violent protests and the setting up of various local committees, the negotiators accepted the results of the process. However, this success was subsequently undermined by party politics on conclusion of the participative process: on the one hand, the Municipality of Chivasso decided not to make available the site identified in its territory (as a result,

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(11) The facts reconstructed are antecedent to the entry into force of Law No. 56 of 7 April 2014, which led to the replacement of the Province of Torino with the Metropolitana City of Torino (whose territory is coincident with that of the Province). Therefore, the effects of this territorial reorganization are not taken into account in this paper.

(12) The Basse di Stura landfill, with a capacity of more than 23 million m<sup>3</sup> and a surface area of 890,000 sq. m was closed in 2010. It is managed by AMIAT spa, owned 99% by the Municipality of Torino and which also deals with the waste collection.

(13) The 45 participants at the first table included: the Chairman (Councillor for the Environment of the Province of Torino); 23 mayors; 17 representatives of local communities (associations and committees); 4 representatives of waste treatment consortia/companies.

(14) The Province had provided the actors involved with an intentionally broad list of 17 sites, without any particular indications as regards site or of a technical nature, as a basis for discussion. These criteria belong to three categories: accessibility; environmental impact on the population; spill over on the local natural, environmental and cultural system. Based on these criteria several maps of possible locations have been built and compared, contemplating and assessing various hypotheses and proceeding by progressive elimination to identify the most suitable sites. Together with this main objective, the actors also agreed on the rules regarding controls, safety and monetary and territorial compensations tied to construction of the works (Bobbio, 2002).

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the Municipality of Volpiano which, at this point, had become the only possible site for the incinerator, also backed out); on the other, the Municipality of Torino, considering the amount of compensation to be paid to other municipalities, proposed its own site to host the incinerator<sup>(15)</sup>(Fig. 1)

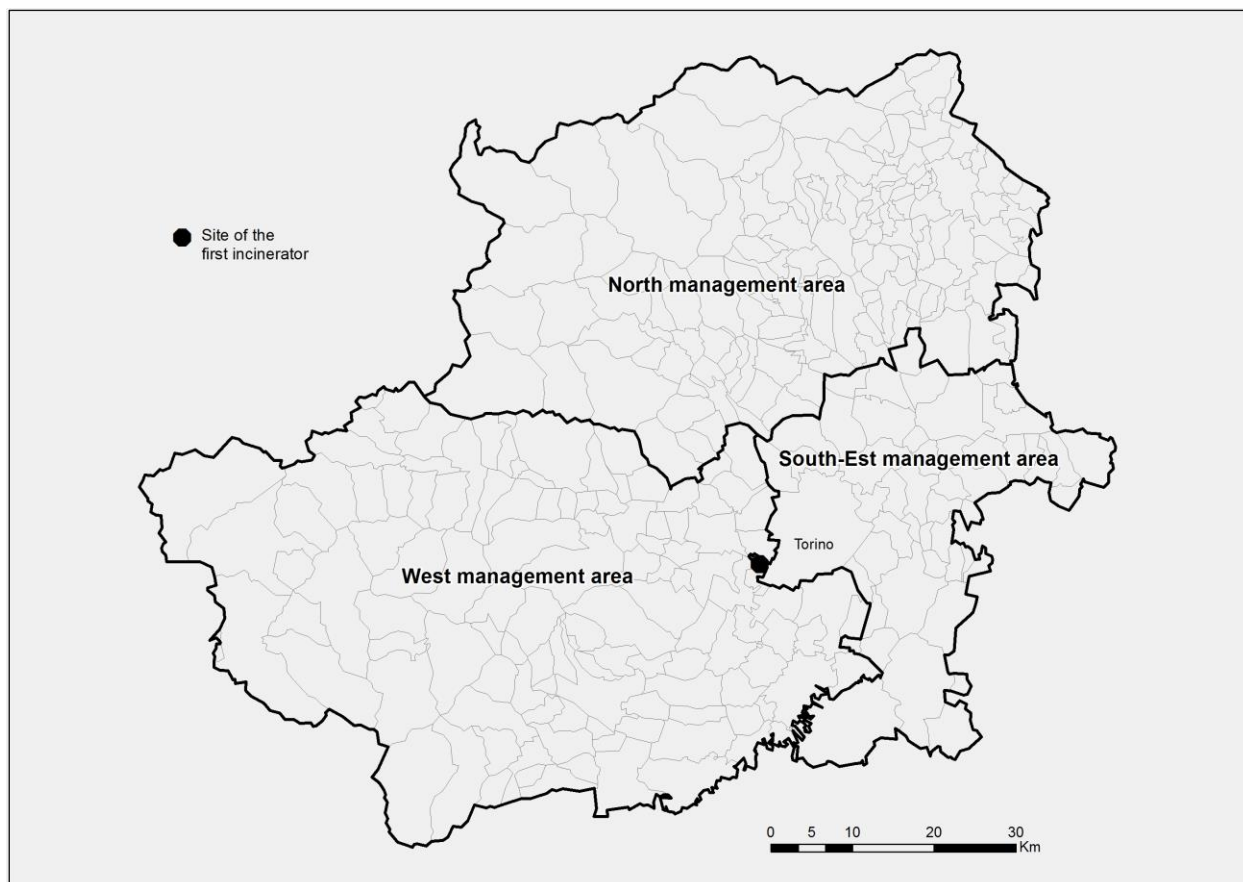


Fig. 1 –The subdivision of the province into three management areas (PPGR 1998) and location of the first incinerator "Gerbido".

Source: Lartu ([www.lartu.polito.it](http://www.lartu.polito.it)) from Puttilli, Tecco (2016).

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<sup>(15)</sup> This site is located in the Gerbido area of Torino, on the south-west outskirts of the city, and belongs to GTT, a company owned by the Municipality of Torino

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It is worth noting that, at the same time, the Municipality of Torino acquired 95% of the shares of TRM Spa, a consortium set up in December 2002 for the design and future management of the incinerator.

The particular interests of the involved parties (related to the presence of incentives and possible revenues as well as to municipal employment prospects within the company) stand opposite to the general interests enshrined through the NRDS process. On this basis, the Municipality of Torino decides to assert its greater negotiating power. This reversal is also made possible by an exceptional situation that has been created around the provincial waste management: according to the Regional Law 24/2002, in fact, the organizational and management skills should have to pass by the Province to the ATO Optimum Territorial Area (ATO) an independent body appointed by the local municipalities and in which all members have equal voting power<sup>(16)</sup>. Notwithstanding the regional regulations, in the case of Torino, the ATO can not be established until 2005, as the City of Torino for a long time refused to approve for its establishment. This implies that the Province (definitely more influenced by political factors and the relative weight of the different municipalities) maintains the leadership of the decision-making processes about the location of incinerators.

The site identified in the South of Torino, along the border between two of the three management areas, imposed redefinition of the territorial set-up of the Provincial waste system, eliminating the division into three management areas and reducing the number of incinerators planned for the territory from three to two (one to the South and one to the North of the city).

It is estimated, that the range of the incinerator of Gerbido can cover a portion of the territory corresponding to the city of Torino with the south-central portion of the province, while a second incinerator would be needed to meet the demand for disposal from the cities in the North belt of Torino (Chieri and Ivrea). The first site has now been identified but the second has still to be defined.

*2005-2011: the second incinerator.* - Siting of the second incinerator gave rise to a different set of problems that emerged at the time of publication of the new waste plan in 2005. The Province's decision not to repeat the previous participative experience but to hold a series of closed, restricted meetings with the single local administrations whose territory could be impacted by the work instead of negotiations open to a broad suite of actors can be considered significant. Although this choice may seem to represent a complete break with the previous period, various decisions taken in this second phase (such as site evaluation criteria, the list of possible sites and also a certain flexibility in accepting demands from the territory) represent a continuation of the previous participative process, thus acknowledging its validity and demonstrating a certain acquisition of expertise by the Province. The main difference lies in the fact that, while the Province had previously renounced direct responsibility for selecting the site of the first incinerator leaving this task to the municipalities, in this second phase it assumed a direct role. Nevertheless, the decision-making process proved to be

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(16) In Italy, the organization of the waste management system has provided, until 2010, the subdivision of the territory in ATOs in the territories of the provinces, where are organized phases of collection, recovery and disposal of waste. The ATOs, based on a principle of functional autonomy, are in turn divided into further territorial partitions, the waste management basins, corresponding to homogeneous areas identified by specific territorial and socio-economic characteristics.

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highly complex (and has not yet been concluded) due to the many factors and circumstances involved.

First and foremost, because of the extremely strong opposition of the population and of environmentalist associations in the various places that seemed, case by case, to be the most probable candidates for the incinerator. The local protest committees set up in Ivrea and Settimo Torinese were immediately championed by Legambiente, the leading Italian environmental lobby that, as will be seen, made it possible to initiate a significant negotiation process with the Provincial authority and, in particular, to label these movements as Nimby. Secondly, due to a certain level of competition between the municipal administrations that, in some cases timidly and in others more explicitly, bid to host the work. This is the case of at least three Municipalities: Ivrea, Settimo Torinese and Rivarolo. As had already happened for the Municipality of Torino with regard to TRM, in the self-candidature of Ivrea and Settimo Torinese, it is difficult not to perceive the benefits that could derive from management of the incinerator by the respective waste management consortia in the two areas, SCS Spa and SEA Spa, in which the two Municipalities have a broad majority of quotas. This competition tended to further complicate the decision-making, multiplying the territorial scales at which to mediate: between Provincial and municipal scale, between the Province, municipalities and environmentalist associations, between the various municipal administrations and between administrators and the resident population.

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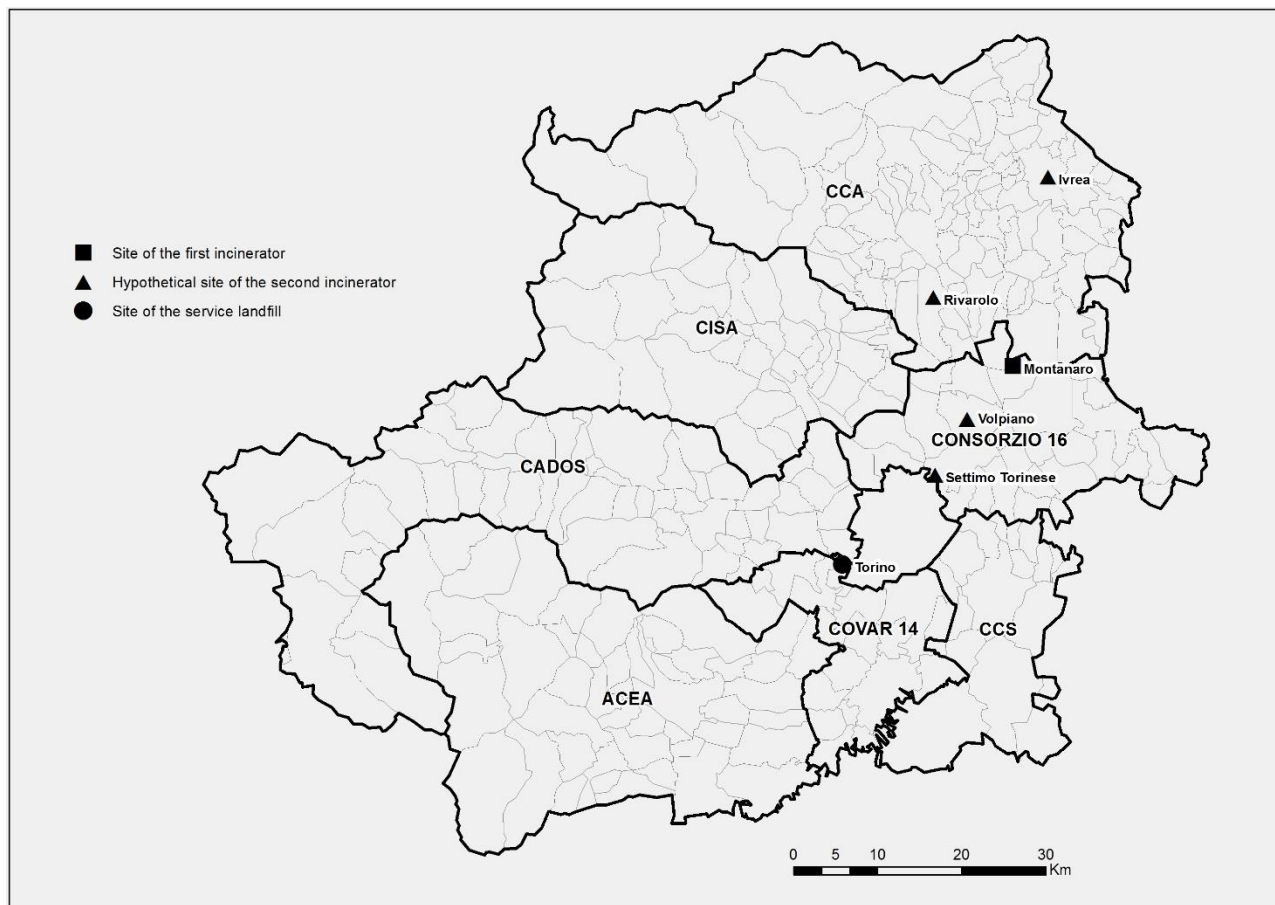


Fig. 2 – The subdivision of the provincial territory into eight waste management catchment areas according to the 2005 new provincial waste plan and the main candidate municipalities to the localization of the second incinerator.

Source: Lartu ([www.lartu.polito.it](http://www.lartu.polito.it)) from Puttilli, Tecco (2016).

In December 2007, the Province carried out a comparative study of the three Municipalities that had bid to host the incinerator, which identified Settimo Torinese as the most suitable site (an abandoned industrial area particularly suitable from a logistic viewpoint). At this point, conflict with the local committee (dubbed “Settimo non Incenerire”) and environmentalist associations became particularly violent: one of the interesting factors in this phase is that the dispute revolved only to a minor extent around alleged fears regarding the quality of the local environment<sup>17</sup> and contested,

<sup>17</sup> Certainly, the activity of censure and protection of public health of the “Settimo non incenerire” committee borders on Nimby positions considering, in particular, that the unsuitability of the area is justified by the fact that it previously hosted “polluting” industrial activities harmful for health. However, the committee’s ability to enlist Legambiente (to the point of expressing the wish to become a local section of this) provided an occasion to broaden the scope of its interests and contestation, elevating this to a broader level of discussion that cannot be considered NIMBY. At the same time,

generally and specifically, the entire waste policy of the Province (and, therefore, the need for a second incinerator). According to the protesters, the significant reduction in waste production during 2007 (motivated, according to some, by the concomitant global economic crisis<sup>18</sup>) combined with the increase in sorted waste collection to 46.2%, undermined the need for a second plant in the territory of the Province. Legambiente proposed a scenario of a further increase in sorted waste collection, up to 65%, and concurrent application of measures for a further reduction in waste produced.

Faced with these protests, the Province adopted a dialogue-oriented approach, setting up a technical discussion table open to representatives of civil society and of the Province and Municipality<sup>19</sup>. Various alternative scenarios drafted by Polytechnic of Torino adopting the *Life Cycle Assessment* (LCA)<sup>20</sup> method were examined (Blengini, Genon, 2008) (Tab. 1).

Scenario A1	Increase in sorted waste collection to 52,1%, direct combustion of residual waste into incinerator and disposal of incineration dross into landfill.
Scenario A2	Increase in sorted waste collection to 65,7%, direct combustion of residual waste into incinerator and disposal of incineration dross into landfill.
Scenario B1	Increase in sorted waste collection at 52,1%, pre-treatment of residual waste and stabilization of the organic part into landfill, incineration of the dry-lightweight and disposal of incineration dross into landfill.
Scenario B2	Increase in sorted waste collection at 65,7%, pre-treatment of residual waste and stabilization of the organic part into landfill, incineration of the dry-lightweight and disposal of incineration dross into landfill.

Tab. 1 – Alternative waste management scenario according to LCA analysis.

Source: elaboration from Blengini, Genon, 2008.

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Legambiente found a local scale supporter in the committee that imbued it with the authority of credible and recognisable partner also as regards local and specific questions.

<sup>18</sup> Waste production in the territory of the Province has dropped from 1,200 tonnes/year in 2006 to around 1,000 tonnes in 2010 (Province of Torino data).

<sup>19</sup> The technical discussion table is set up as a place for public debate among public authorities involved in the waste management sector and a representative of local committees and environmental associations, in number of 6 members for each part. The overall duration of the table is fixed in 2 months (from February to April 2008), with the declared aim to verify and quantify the total volume of wastes produced each year on the provincial territory and the effective economic costs of the different waste disposal technologies.

<sup>20</sup> LCA is a method of analysis for quantitative assessment of the set of relations of a product with the environment (for example, in the form of energy and material consumption and emissions), considering its entire life cycle: pre-production, production, distribution, use, any recycling and final disposal.

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In scenarios A1 and A2 two cases of direct combustion into incinerator of residual waste are compared. Both scenarios consider an increase in recycling, up to 52,1% in scenario A1 (the quota foreseen in the provincial waste management plan of 2005) and at 65,7% in scenario A2 (the target proposed by Legambiente). Scenarios B1 and B2 compare two cases with a pre-treatment process of residual waste derived from sorted waste collection, again expected to increase up to 52,1% and 65,7%. Following a specific indication by the Province, the LCA study didn't indicate in the conclusions which of the four scenarios had to be considered as the best. It is worth of interest, thus, to see how the different actors have read and interpreted the results of the study.

Legambiente focused on the issue of the different quota of sorted waste collection. According to it, the study unequivocally demonstrated that "considering each environmental parameter analysed (such as energy, greenhouse gas emissions, human health, ecosystems' quality, resources' depletion and so on) A2 and B2 scenarios are more advisable than A1 and B1" concluding that the construction of a second incinerator wasn't justifiable nor in quantitative, environmental neither economic terms. Legambiente postponed to further analysis the comparison between scenarios with or without wastes' pre-treatment, because on this topic the results of the study were considered "less clear". It is not surprising that the Province focused precisely on this topic. In fact, the Province stated that "concerning the issue of ecosystems' quality, the study demonstrates that there is no big difference between solutions with or without pre-treatment process, that is between scenarios A2 and A1 and between B2 and B1; besides, for what concerns the depletion and consumption of natural resources, the study shows that scenarios that exclude pre-treatment (that is, A1 compared to A2 and B1 compared to B2) are more efficient". Evidently, the Province's remarks didn't compare the different quota of sorted waste collection, while they just contest the theoretical assumption that higher quota were to prefer to lower ones in terms of economic and environmental costs.

The difference between the two comments underlies different geopolitical discourses and intent. While the final remarks of Legambiente are more pertinent with the technical contents of the study and try to contest the provincial plan from a pretended unbiased perspective, those of the Province demonstrates how the choice to realize a second incinerator is partially disconnected from quantitative considerations related to waste management, but actually responds to political and territorial objectives that are less clearly understandable and not completely neither openly debatable.

Although no definitive decision was reached, the data discussed at the table did at least cast doubt on the need to construct another system in the times established by the Provincial plan. On the other hand, worsening of the international economic crisis with a consequent reduction in consumption and waste production and concurrent expiry of the term of office of the Provincial administration seemed to further confirm the advisability of delaying decisions regarding the second incinerator, freezing these until the new administration took office in mid 2009.

The subsequent period was characterised by a phase of substantial impasse in which even the Provincial administration did not seem convinced of the need for a second incinerator. Other hypotheses gained ground, including first of all (August 2009) that of increasing the capacity of the first incinerator and of using this to dispose of all the waste produced in the Region<sup>21</sup> and, more

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<sup>21</sup> It is interesting to note how this proposal (submitted in a not clear fashion by personages of the business world involved in politics in various ways) emerged in relation to a change in national legislation that abolishes the ATO together with various aggregations of Municipalities, thus eliminating the need to identify a solution on this scale and

recently (September 2011), replacement of the incinerator with another alternative system. This hypothesis of installing a system for the disposal of special (and not urban) waste at Settimo Torinese has recently sparked a certain opposition, with once again the involvement of Legambiente.

*Geopolitics at work.* - Evolution of waste management policies in the Province of Torino is highly complex and does not lend itself to a simplistic examination focussed on only one strand of analysis. As seen above, it would be reductive to assign a central role to health and environmental rather than social and/or economic factors in determining the intentionality of the various sets of actors involved in making decisions. As a proof of that, the influence of external economic factors (such as the global economic crisis or the amendment of various national, regional and provincial regulations) could generate misunderstanding when attempting to reconstruct an exhaustive geography of the factors that have influenced the decision-making processes regarding siting of the incinerators.

Furthermore, interpretations founded on the contraposition between fixed scales (for instance, between the local and the supra-local scale) are inadequate as well. The political strategies adopted by the various actors involved in the decision-making processes regarding the “issue of waste” in the area of Torino have been legitimised through reference to the territorial dimension and have, as outcome, produced new scales of action and of relationships, thus assuming the connotation of more or less explicit political-territorial strategies. In other words, scale and the territory have been adopted as an instrument to pursue political type objectives and can, therefore, be considered to all effects geopolitical strategies.

For example, in the case of the first incinerator the Province adopted an explicit large-scale policy, intended to reproduce the issues present in the territory and mobilitate these around a negotiating table. The intent is political: avoid outbreak of protest and opposition movements in the territory downstream of the decision-making process, inviting local stakeholders to express their opinion ex-ante and to discuss as far as possible transparent and jointly-agreed objectives and selection criteria in a formal, institutionalised decisional forum. Consequently, the decision not to establish a decision-making table in the case of the second incinerator also reflects a clearly evident policy of scale: bi-lateral relations with the single Municipalities possibly interested in the work allow the Province to exert its negotiating power more effectively and, at the same time, to build political consensus and directly control evolution of the decisional process. Therefore, selection of the territorial scale is an important instrument in structuring the decision-making process.

Nevertheless, the outcomes of decisional processes are often unforeseeable as other geopolitical strategies focussed on territorial type factors tend to intervene, changing the cards on the table (fig. 3).

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escalating the problem to the competent supra-local scale, i.e. the Region. After dominating local news pages for a few days, the proposal was shelved as absolutely unfeasible, in particular to avoid blocking the construction and installation of the new Gerbido incinerator, which, otherwise, would have had to be rediscussed and partly redesigned.

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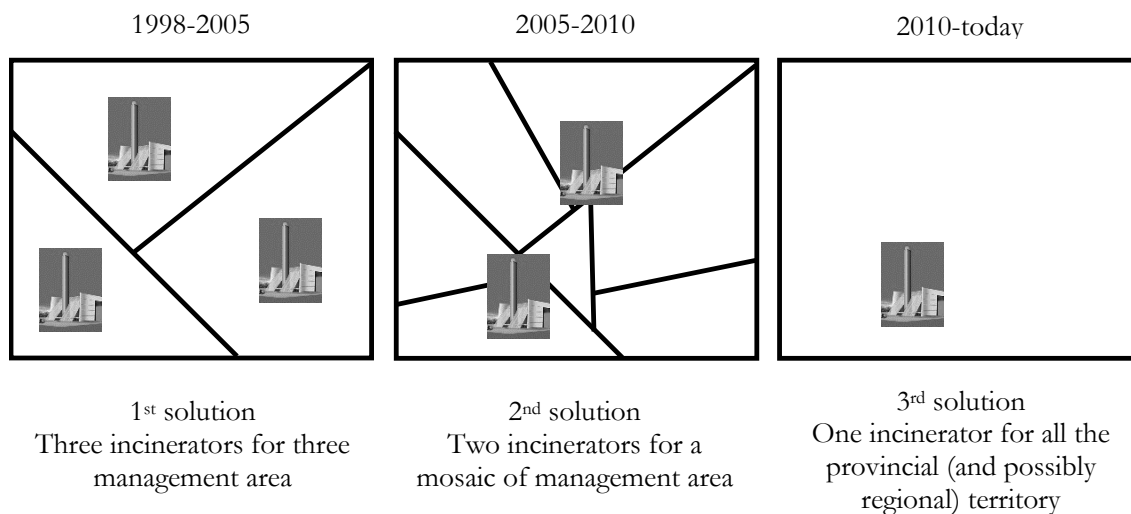


Fig. 3 – Evolutionary schemes of the different hypothetical sites for the incinerators in the province of Torino and of the consequent spatial subdivisions.

The Torino case demonstrates that incinerators, rather than works to be opposed, constitute appetising economic resources for municipal administrations. Territorial localisation of the plants thus becomes a crucial factor in influencing scale strategies and territorial policies. Therefore, the Municipality of Torino's decision to postpone setting up of the ATO (the territorial waste management authority) and to let the Province manage the decision-making process of the first incinerator can be considered emblematic. In fact, it imbued the Provincial capital with much stronger negotiating power that the city did not hesitate to use, invalidating the results of the participative process, submitting its bid to host the first incinerator and acquiring control of the plant management company (TRM, in which it holds a majority interest).

The outcome of the first decision-making process has major repercussions on the functional organization of the territory, redefining the borders of the waste management areas. This result paves the way to a new season of territorial competition for resources between the Municipalities of the suburbs to the North of the city, faced with the prospect of hosting and managing an incinerator intended to balance that located to the South. Also in this case, modification of the scale of action forges new territorial strategies, excludes a number of Municipalities from the decision-making process while permitting others to participate and form part of this. For the Municipalities in the North of Torino, the possibility of hosting an incinerator (and therefore of not having to send their waste to that managed by TRM Spa) implies the possibility of claiming their territorial and functional autonomy in relation to the Provincial capital.

Selection of territorial scale is also a pivotal point of the action and initiatives of environmentalist associations. In the case of Torino, Legambiente, rather than a simple localist movement, demonstrated that it knows how to broaden the scale of its "terrain of resistance" (Routledge, 1996) to embrace the entire territory of the Province and, more generally, the "waste issue" in its entirety.

The protest does revolve around health or strictly local issues but rather proposes a more general review of Provincial waste policy based on a different logistic organization and on criteria of improved sustainability: reduction of waste produced, promotion of sorted waste collection, support of recycling systems are just some of the actions proposed to redefine the provincial territorial system. Well aware of the (geo)political aspects underlying the behaviour of institutional actors, Legambiente succeeds, setting up a consultation table following selection of the site of the second incinerator at Settimo Torinese, in steering debate towards technical questions, significantly delaying assumption of a decision that, considering the recent waste production trends, would have been too hasty.

*Conclusions.* - Conflicts tied to waste production plants are characterised by various general factors that make it possible to compare various case studies and also particular aspects closely linked to specific situations, defined by actors, resources, policies and local discourses in much broader supra-local reference frameworks (regulatory, political and cultural). Therefore, we consider it interesting to highlight various considerations that may contribute to international debate in the field of geography, political ecology, social sciences and also socio-technical sciences that deal with waste management.

A first consideration concerns the scale of observation of a conflict. Most conflicts are labelled as Nimby and, as such, apparently justify an attitude that takes an external view of local contexts. Nimby type conflicts can be readily ascribed to a general stereotyped model that can be studied from the outside. Local aspects appear as variations on a prefigured, foreseeable theme.

In partial opposition to this attitude, various approaches converge towards the construction of local case studies in an attempt to understand the specificity of the discourses, reasonings and territoriality that are not, otherwise, revealed by an approach restricted to the supra-local scale. In this way, entering the local dimension, the reductive nature of Nimby explanations appears evident, but there is a risk of considering idiographic interpretations not attributable to more general explanations except to a generic opposition to large infrastructures “imposed from above”.

Emerging from the opposition between these two approaches is not an easy task. In this paper, a critical geopolitical perspective is proposed in order to analyse the ways in which different actors use geographical scales as a strategic resource within conflicts and decisional processes concerning waste management. This perspective allows researchers and observers to go beyond an inquiry “trapped” within fixed scales of analysis, that considers conflicts and decisions in terms of a contraposition between different geographical scales (for instance, between a local and a supra-local scale). A critical geopolitical perspective reveals that geographical scales are nothing more than interpretative tools.

In the practice of the conflict, social actors are able to move across different scales and to produce constantly new spaces and context of and for action. As a consequence, spatial analysis must consider multiple scales of observation as well, as many as they are practiced and produced by actors. In this perspective, waste geopolitics appear as a privileged case for the analysis of the logics and strategies behind socio-spatial interaction and the capacity of producing new terrains and contexts for the conflict development.

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GEOPOLITICS OF WASTE. ACTORS, SCALES AND DECISION-MAKING IN THE SITING OF TWO INCINERATORS IN THE PROVINCE OF TORINO. - Even in the most praiseworthy cases, waste management and related decisions are always a highly problematic issue, with a tendency towards *radicalisation* in the form of conflicts and disputes not only between citizens and local administrations but also between different levels of territorial governance. This is one of the reasons why waste management is a highly complex *territorial issue* that oversteps merely (albeit delicate) environmental and health-related aspects. An issue that generates far-reaching re-visioning of relationships between politics, citizens and territory. This nexus justifies a *geopolitical* reading of the issue of waste, in the sense that scales and territory are adopted by social actors as an *instrument* to pursue political objectives and strategies. The paper presents the case of the province of Torino, where in the last ten years two significant and very different decision-making processes regarding the siting of two incineration plants have been developed. The case study can be considered an effective example of geopolitics of wastes, because of the continuous redefinition of territorial scales induced by geopolitical relations between the actors involved in the different decision-making arenas.

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