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AN OVERVIEW OF ITALY'S WASTE MANAGEMENT PROBLEM

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I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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ABSTRACT

Italy is a nation full of different problems nowadays externally and especially internally. One of the biggest internal problems is the waste management situation which is at its worst in the southern part of Italy. There is garbage on the streets, illegal disposal of waste and a total chaos on who should be in charge of it. And the situation does not seem to get better.

Waste management problems in Italy have led to many different negative consequences in the nation including health problems to its citizens. The aim of this thesis is to overview Italy's waste management problem from different perspectives.

The thesis will concentrate mostly on the legal aspects of the situation but also on political, health and historical aspects that the situation is derived from. All these aspects will be looked at individually and there will be discussion on how these aspects affect the problem that is being studied.

The research of this thesis aims to address where the problem has been created, how does it apply to the citizens and how it is involved to the European Union (EU). The problems are divided into different sections and will be evaluated individually. Environmental problems are a danger to all of us and should be solved for the sake of humanity and the longevity of the planet.

Keywords: Waste management, European Environmental law, Sustainable Development, Italian Environmental policy

INTRODUCTION

This thesis will concentrate on Italy's most relevant and important topic. Environmental problems. Namely, Italy's waste management problems with a focus on the southern part of the country. After delimiting the problem, the thesis will then concentrate on proposing how to improve and eventually possibly solve the issue at hand.

Naples rose to the media during 2014, when the waste management crisis started to look unacceptable. As an article by the *Earth Island Journal* told it, in the past 20 years, Naples and the Campania countryside have attracted new nicknames: "Land of Poison" "Triangle of Death" "Land of Fires"¹. This is not far from the truth as will be explained further down the line.

The "Land of Fires" has brought with it a serious health issues to the people of the Region of Campania. A study that analysed cancer mortality trends between 1988 and 2009 in the metropolitan area of Naples and Caserta found shocking results. The study showed an increase of APC for non-Hodgkin lymphoma in males and an increase of APC for lungs². The situation has not been improving much after 2009.

During this thesis there will be focuses on where the problem with waste management in Italy is derived from, how it affects the everyday life of people and how the problem is conjoined to the EU. Lastly, there will be proposals on what the solutions can be in different aspects of the problem and how these solutions can be applied in practice afterwards.

As the topic continues from definitions to history and beyond, there will be discussion on what EU laws and directives are relevant to the problem and if Italy has been able to

¹ Newcomer, D. *Coping with Naples' Toxic Waste Crisis* – Earth Island Journal, 25 August. Accessible: https://www.earthisland.org/journal/index.php/articles/entry/coping_with_naples_toxic_waste_crisis/

² Crispo, A., Barba, M., Malvezzi M., Arpino, G., Grimaldi, M., Rosso, T., Esposito, E., Sergi, D., Ciliberto G., Giordano, A. & Montella, M. (2013). *Cancer mortality trends between 1988 and 2009 in the metropolitan area of Naples and Caserta, Southern Italy*. Cancer Biology & Therapy, vol.24, Routledge, pp.1115.

follow these laws and directives. The most important document so far is the Lisbon Treaty of 2009, which set principles of EU environmental law such as high level of environmental protection, sustainable development and environmental integration³.

It is not a simple thing to come up with solutions to this problem. The solutions that this thesis suggests are completely theoretical and cannot be proven to be the right solutions in the concrete world. However, these theoretical solutions can be a gateway to finding solutions that can be used in the matter.

There are some research questions that this thesis will try to answer. Firstly, how has Italy implemented EU laws on waste management or has Italy even implemented them at all. Secondly, does Italy lack proper waste management regulations and surveillance by legal ways. And thirdly, what can be done in the Italian and EU legal system to improve the situation on waste management.

From research question we move onto the hypothesis of the thesis. The thesis hypothesis is if Italy is able to better its waste management problems by implementing the EU's legislation on the matter.

In addition to legal question there are other factors to why waste management has declined to the state it is in now. Political, and financial questions are important as well. For example, the average cost of waste management in the Italian Regions is 409,394 million euros annually⁴.

The severity of the situation is not known in other nations outside of Italy and the goal of this thesis is to make the readers understand how much Italy is suffering. By the end of this thesis perhaps people will understand that there is a need for change in the country and there is a need for external pressure for change to happen.

³ Alam, S., Bhuiyan, J., Chowdhury, T. & Techera, E. (2015). *Routledge Handbook of International Environmental Law*. Abington: Routledge. pp.437-440.

⁴ Di Foggia, G. & Beccarello, M. (2020). *The impact of a gain-sharing cost-reflective tariff on waste management cost under incentive regulation: The Italian case*. *Journal of Environmental Management*, vol. 265. Elsevier, pp.4.

1 DEFINING THE PROBLEM

Defining the problem is the first step in finding a solution to a problem. By defining the problem, understanding where it derives from and what branches the problem has are things that need to be addressed before the solutions is discussed. These are essentials to understand where in which faculty the changes need to be made.

This first chapter will focus on where the problems are derived from and what has caused these problems. This chapter will be divided into health, political and legislative problems. Lastly, the chapter will isolate more practical problems that the waste management situation has brought with it.

1.1 Legislative problems

We will start from the root of the issue. The biggest challenge in reference to Italian waste management is the laws that involve the environment and waste management. And these legislative problems start from the basis of all legislatures, the constitution.

The issue at hand comes from the reform of the constitution that took place in 2001. The 5th title precisely, which is named “Regions, Provinces – municipalities” and the articles that are interesting to the topic are articles 114 to 133.

Article 114 of the constitution reads “Municipalities, provinces, metropolitan cities and regions are recognized as autonomous entities having their own statutes, powers and functions in accordance with the principles of Constitution”⁵. Regions are not only autonomous entities; they are given concurring legislative power into certain areas. These areas include for example land-use planning, enhancement of cultural and environmental properties and regional land and agricultural credit institutions.

Another legislative problem is the legislative decree 152/2006. This decree sets rules that regional authorities are in charge of drawing up waste management plans to promote

⁵ The official website of the Presidency of the Italian Republic. Italian constitution (1947)

waste reduction and that municipalities are responsible of optimal management areas, which are generally represented by provinces, organize municipal waste collection⁶. The responsibility is therefore divided between Regions on how to deal with waste management.

The regions have been invested with the power to write their own constitutions, which policymakers have used to expand the legislature. These constitutions are called “statutes”⁷. The constitution also establishes regional branches of government, which are the Council, the Cabinet and its President. The branch that exercises the legislative power is the council.

The autonomy of the Regions is confirmed by law in the waste management department as well. According to the legislative decree 205/2010 it is prohibited to dispose of non-dangerous urban wastes in Regions other than where the wastes have been produced. This gives another view on how Italy has divided waste management between Regions and not on having a clear unified waste management law.

There is a need to say that not all the Italian legislation on the environment has been bad. The legislative decree 22/1997 defined the waste management of dangerous waste, of packing and packing waste. This would set the standard on how to manage waste, but the implementation did not work with the Regions and it can be seen in the streets of Milan versus the streets of Palermo or Naples.

1.2 Political problems

Political problems have been a part of Italy for a long time. The financial debt of the nation is still increasing, corruption percentages are still incredibly high and there is a problem with making changes due to the structure of the parliament. Without mentioning

⁶Agovino, M., Garofalo, A. & Mariani, A. (2018). *Institutional quality effects on separate waste collection: some evidence from Italian provinces*. Journal of Environmental Planning and Management, vol.61. Routledge, pp.1491.

⁷ Fiorino, N. & Ricciuti, R. (2006). *Legislature size and government spending in Italian regions: forecasting the effects of a reform*. Iscrizione n.591 del 12/05/2006, Department of Public Policy and Public Choice – POLIS. Università Del Piemonte Orientale, pp.1.

the problems that the government has no response to the acts done by the criminal organizations in Italy.

The Italian parliament has 2 houses, the *Camera dei deputati* and the *Senato della Repubblica*. The process to change a law the decision has to go through both the houses before it can be sent onward. It is quite hard to have a law pass the majority vote in both houses. Especially a question that easily divides opinions, since in Italy single politicians follow only the ideas and opinions of the leaders of their party.

This plays into the topic of the paper since there is a need for legislative reform and that reform may need the changing of some laws. Having a difficult procedure of changing laws leads to having a low success rate in the changing of waste management laws in the Regions. The two-chamber system has been revealed to be slow and inefficient and causing many problems in the Italian political sphere.⁸

The Italian waste management sector is where public, private, and mixed players operate together. There are public run enterprises that work locally as well as private companies that deal with waste management (including the *Camorra*).

The public run companies are responsible only for the disposal, so it falls to the private companies to collect the waste⁹. This kind of mixture of companies does not seem to be working and would seem to make everything more complicated. Perhaps Italy should have a clear-cut policy regarding having only one or a couple of companies that deal with waste management and to eliminate all the extra labour that it has on the sector.

1.3 Health problems

The biggest impact that the illegal waste disposal in Naples has had is on the health of people living in the region. According to studies, there has been an increase of cancer

⁸ Clementi, F. (2019). *The Italian constitution after seventy years between referenda, electoral laws and institutional reform: a past that does not pass?* Journal of Modern Italian Studies, vol. 24, Routledge, pp.417.

⁹ Alfiero, S., Elba, F., Esposito, A. & Resce, G. (2017). *The Impact of Environmental Factors on the Measurement of Managerial Efficiency in the Italian Waste Management Sector: Framework and Empirical Evidence*. International Journal of Public Administration, vol. 40, Routledge, pp.824.

mortality in the provinces of Naples and Caserta compared to the expected figures from the regional population since the 1980's¹⁰.

The increase of cancers is not a coincidence. The reason to the increase is the organized crime that populates the area, namely the *Camorra* or the Neapolitan branch of mafia. The *Camorra* is involved in the illegal disposal of waste. Especially toxic waste, municipal waste and industrial waste.

The criminal organization has been recorded in the year 2000, to have estimated the business of illegal waste managing to be worth around 7.5 billion euros¹¹. The business included: dumping hazardous waste directly in the countryside, dumping hazardous waste in illegal quarries and the construction sites for public infrastructural works and burning special waste in the countryside and along low-traffic roads.

Burning special waste creates a smoke which is carried by the winds towards the sea and ends in the areas of Naples and Caserta. The local population then is forced to inhale this smoke that is in the air and because of it gets sick. Data from 2002¹² shows that there is a connection to the dumping of illegal waste and the increasing number of cancer patients in the area.

According to another research, cancer might not be the only disease that the illegal dumping and burning of waste creates. The study hypothesized that Soft tissue sarcomas (STS) might also be created by the illegal dumping's¹³.

¹⁰ Maddalena, B., Mazza, A., Guerriero, C., Di Maio, M., Romeo, F., Maranta, P., Marino, I., Paggi, M. & Giordano, A. (2011). *Wasting lives: The effects of toxic waste exposure on health. The case of Campania, Southern Italy*. Routledge, pp. 106.

¹¹ D'Alisa, G., Germani, A., Falcone P. & Morone, P. (2017). *Political ecology of health in the Land of Fires: a hotspot of environmental crimes in the south of Italy*. Journal of Political Ecology, vol.24, Routledge, pp. 69.

¹² Marconato, L., Leo, C., Girelli, R., Salvi, S., Abramo, F., Bettini, G., Comazzi, S., Nardi, P., Albanese, F., & Zini, E. (2009). *Association between Waste Management and Cancer in Companion Animals*. Journal of Veterinary Internal Medicine, vol. 23. American College of Veterinary Internal Medicine, pp.564.

¹³ Benedetti, M., Fazzo, L., Buzzoni, C., Comba, P., Magnani, C. & Fusco, M. (2015). *Incidence of Soft Tissue Sarcomas in an Italian Area Affected by Illegal Waste Dumping Sites*. Archives of Environmental & Occupational Health, vol.70. Routledge, pp.154.

The study found that the products or by-products of hazardous and municipal waste incineration are associated with STS and therefore started the investigation on how the illegal dumping and burning of waste could be involved in the disease. Unfortunately, the study could not definitely prove the hypothesis, but with continuing investigations it might be found that there is a connection between the dumping's and the disease.

1.4 Other problems

In 2003 Italy generated almost 350 kilograms per inhabitant of municipal solid waste¹⁴ and the numbers increased every year to 2018, when Italy created almost 500 kilograms per inhabitant. This means that there is too much waste produced and that is one of the problems that Italy is facing.

Too much waste means that there cannot be enough people to gather the waste or let alone have enough space for all the waste in landfills. This leads to the hypothesis that there must be a change in the disposal of waste.

Another problem that lays within the Italian system is low surveillance on the issue. There no surveillance on picking up wastes or how the situation of landfills is, especially in the cities like Naples. Granted that the decision-making organs might have some other issues at hand but in regard to this paper surveillance is key and if it is not maintained the streets will be flooding with waste in a blink of an eye.

Italy has a waste management tariff that was introduced in 1997. This tariff is not a flat fee though, as the implementation of the tariff system is dependent on local policy decisions and practices, and in part is down to the choice made by the municipality¹⁵. The tariff is therefore quite useless and to make it work there should be a tariff on waste management that is equal to every municipality and Region. The tariff is a problem because it once again shows that environmental law is not well systemized in Italy.

¹⁴ Giugliano, M., Grosso, M. & Rigamonti, L. (2008). *Energy recovery from municipal waste: A case study for a middle-sized Italian district*. Waste Management, vol.28. Elsevier, pp.40.

¹⁵ Mazzanti, M., Montini, A. & Nicolli, F. (2012). *Waste dynamics in economic and policy transitions: decoupling, convergence and spatial effects*. Journal of Environmental Planning and Management, vol.55. Routledge, pp.566.

Included in the practical problems is the cost of gathering waste and disposing of it. According to a study, waste collection costs are lower in the Northern regions of Italy and for municipalities with a population below 20000 inhabitants¹⁶. Urban areas instead are facing higher congestion costs, especially due to horizontal urbanization effects. In cities such as Rome and Naples the amount of population therefore is a big problem in the cost of waste management.

All these problems are derived from the fact that the waste management in Italy is not effective. The fact that the problems spread as wide as the first chapter shows that there is a need for change in the area. There problems are so bad that the health of the citizens is declining from it and as the next chapter will show, the legislation and the Regions are right in the middle of the maelstrom.

After debating on the different types of problems, it is time to move into specifics. The evaluation will be on the Regions of Italy and their formation in the political life of today. Then the evaluation will turn to Naples and the history of the continuous crisis that lives in the city. There also needs to be an assessment to the criminal side of the problem and the illegal disposal of waste.

¹⁶ Abrate, G., Erbetta, F., Fraquelli, G. & Vannoni, D. (2014). *The Costs of Disposal and Recycling: An Application to Italian Municipal Solid Waste Services*. Regional Studies. Routledge, pp.906.

2 THE REGIONS

The following chapter will dive in more deeply on what seem to be the major problems with the Regions and the structure of the regional government. Then the focus will turn to the comparison between Regions and trying to figure out if there is one Region working much better than the others.

As established, the Regions have a good amount of power over waste management. The Regions are culturally, environmentally and politically different and every Regional Government differs from each other. This chapter will make the reader understand the amount of different parts that the Regions play in the problem.

2.1 The problems with different Regions of Italy

Italy is divided into 20 different Regions, which have concurring legislative power. Some of the Regions, like Sicily and Sardinia have autonomy with a special statute. These special statutes have been made to take into account cultural differences and to protect linguistic minorities¹⁷.

This situation creates a problem of diversity in the Italian legislative and political environment. By having Regions with special statuses creates a power dynamic between the Regions. This can lead to other Regions to demand the same status as Sicily and Sardinia. This imbalance that is founded on cultural differences could divide the whole of Italy into the shape it was before the nation was unified.

The Regions do not have the unlimited power though. While Italian Regions are directly elected and have legislative powers, Italian Regions have no tax raising capabilities and their freedom of movement is curbed by strong legal constraints¹⁸. By this means, the Regions have legislative power but no other significant powers. This poses a question if the Regions are needed at all since, they are not like the national government.

¹⁷ Kudo, H. (2008). *Autonomy and Managerial Innovation in Italian Regions after Constitutional Reform*. Chuo University, Faculty of Law and Graduate School of Public Policy, pp.1

¹⁸ Garmise, S. (1997). *Making a difference? Regional government, economic development and European regional policy*. International Planning Studies, vol.2. Routledge, pp.70.

By having the Regions have as much legislative power as they have, there is a problem of diversity in the legislation as well. By having these autonomous Regions that have their own statutes, Regions can decide what they are concentrating on. Usually spending money on waste management is not the most ideal place to spend money on, so the Regions seem to lack the desire to invest in waste management.

The Regions vary from problems. For example, Naples has a great waste management problem, while Milan has a problem with smog. On recycling the numbers favour the North as nearly nine million tons of recycled waste, over six million are recycled in the north, against only 2.7 million tons in the centre and south combined¹⁹. Problems can therefore be different depending on the Region.

Waste collection is one of the examples how waste management differs in the Italian Regions. Since 1998 Italy has experienced an increase in separate waste collection, with rates reaching 27.5% in 2007; up from 13% in 1999²⁰. However, Regions in the south have experienced waste management crises, attributable in part to an extremely low separate waste collection rate, amongst the wider factors that have led to such situations.

Lastly, the Regions have a great problem with corruption. The Regional Governments are known to be part of a policy called “clientelism”. This policy consists of someone getting someone to vote for you on the Regional elections and in exchange you will make a member of his family part of the Regional Government or make him work in a agency that works under the supervision of the Regional Government.

Italy has implemented the legislative decree 190/2012, which requires all public administrators to draw up an anticorruption plan to identify, evaluate, and mitigate corruption risks and applies to all Italian public administrators, including those operating

¹⁹ Pasotti, E. (2010). *Sorting through the Trash: The Waste Management Crisis in Southern Italy*. South European Society and Policy, vol.15. Routledge, pp.291.

²⁰ Crociata, A. & Mattoscio, N. (2016). *Output-orientated Data Envelopment Analysis for measuring recycling efficiency: an application at Italian regional level*. Environmental Education Research, vol.22. Routledge, pp.552.

in regions with special statutes²¹. The problem is because of the “clientelism”, there is a constant breaking of the law and most of the Regions continue this illegal tradition.

2.2 The Regional Government

The regional Government is made of its Council, Cabinet and President. The Regional council is elected with proportional representation for a period of 5 years. The council has a number of seats that changes in almost every Region, Lombardy having 80, Lazio having 51 and Molise having 21 seats in its council.

The council works like a parliament. The president of the council, who is the leader is also elected by the voters for an electoral period of 5 years with a chance to be re-voted for another period of 5 years after the first one has ended. The main task of the president of the Region is to promulgate Regional laws and regulations. Another important task of the president is to appoint the Regional Cabinet.

The Regional Cabinet is composed of 16 Regional assessors which can be part of the Council at the same time. The Regional Cabinet work as a government and it is guided by the President of the Region.

The Regional Governments have caused a controversy between themselves, the state and the EU. Between 1999 and 2000, some of the Regions did not agree with the Commissions offer to an effective intergovernmental partnership²². This disagreement created tension in both supranational and domestic intergovernmental relationships by the Europeanization of Italian regional policy.

The Regional Governments have a lot of power in Italy and do not want to change that. By trying to be integrated into an intergovernmental relationship would mean things like the harmonization of certain statutes. To be able to change the Regional Governments power this would be essential from the point of view of the EU.

²¹ D'onza, G., Brotini, F. & Zarone, V. (2016) *Disclosure on Measures to Prevent Corruption Risks: A Study of Italian Local Governments*. International Journal of Public Administration, vol.40. Routledge, pp.613.

²² Gualini, E. (2003). *Challenges to multi-level governance: Contradictions and conflicts in the Europeanization of Italian regional policy*. Journal of European Public Policy, vol.17. Routledge, pp.616.

2.3 The comparison between Regions

There has been a division of south and north in Italy since the nation was unified by *Giuseppe Garibaldi* in 1861 that continues to this day. North and south have their own cultures, climates, dialects and habits. People make a distinction when presenting themselves to new people whether they are from the North or South of Italy. Yet, there is also a distinction between Regions of Italy.

The comparison between Regions hits a distinct difference as we look at the Northern Region of Lombardia (which includes the city of Milan) and the Southern Regions of Lazio (includes the city of Rome) and Campania (Naples). These Regions have key differences in how they work, and these differences are what helps us see why having a Regional government causes problem.

We can compare how two different cities in different Regions handle waste management. We will take Rome (Region of Lazio) and Turin (Region of Piemonte) as examples. Turin has adapted a system called Collection and recycling of construction and demolition waste (C&DW).

This system combines a Life Cycle Assessment (LCA) model and a Geographical Information System (GIS), paying attention to key issues such as geographical location, land use, transportation, avoided landfill and natural aggregate substitution²³. The model is strict and working which brings Turin to be one of the cities in Italy to have a well working waste management system.

Then moving onto Rome and their system used for waste management. Rome's municipal solid wastes are disposed of in the landfill of Malagrotta²⁴. There is no further sorting or thermal conversion, which lead to the landfill being exhausted and having no more room

²³ Blengini, G. & Garbarino, E. (2010). *Resources and waste management in Turin (Italy): The role of recycled aggregates in the sustainable supply mix*. Journal of Cleaner Production, vol.18. Routledge, pp.1021-1022.

²⁴ Cherubini, F., Bargigli, S. & Ulgiati, S. (2008). *Life Cycle Assessment of Urban Waste Management: Energy Performances and Environmental Impacts. The Case of Rome, Italy*. Waste Management, Vol 28. Routledge, pp.2552.

for all the waste that is made in Rome. This is the major reason for the streets of Rome being filled out with garbage everywhere.

The key differences between Regions such as Piemonte and Lazio is the organization in how the waste management should be conducted. The Region of Lazio is simply using its resources until they last while Piemonte is contriving how to sustain waste management for as long as possible. The latter is what the EU regulates in sustainable development, which will be tackled later on.

As this chapter has shown, the Regions of Italy have a lot of power and they differ a lot from each other. This diffusion of power between the Regions and the lack of a centralized organization in both politics and law and the differentiation between north and south of Italy is part of the reason why Italy is in a continuous waste crisis. The Regions should therefore be taken into consideration, when drafting solutions to Italy's waste management problem.

3 HISTORY AND THE INVOLVEMENT OF CRIME

To understand the problem with waste management, there has to be an evaluation of its history. This is important to understand how the situation got as bad as it is nowadays. This chapter will also concentrate on the involvement of crime in the situation and how it is profitable for criminal organizations.

Crime has always been a part of the stereotypes of Italy, from movies to literature. Unfortunately, the amount and the power of criminal organizations in Italy is worse than it is pictured in the movies. And one of the most powerful of these organizations works in the area of Naples and started a true environmental crisis in the area that has become known as the *Land of Fires*.

3.1 History of the waste crisis

The waste crisis in Naples has a lot more history than people think. There were recurring crisis's in the waste management area from 1994 to 2008. This included that the rubbish collection did not function for 14 years²⁵.

After World War II, the city of Naples did not know how to get rid of all the waste that was left in the city. A solution was found. Naples has been built on top of itself 3 different times. This left whole parts of the old city underground. These underground cellars in the historic centre were used as landfills²⁶.

The problem arose when the undergrounds were to be opened to the public as a tourist attraction by order of the government. They tried to clean the underground but there was so much waste that instead they decided to disguise them with a layer of concrete and as such elevating the floor much higher than it was.

²⁵ Laino, G. (2012). *The Waste Crisis in Naples*. DisP 180 - 1/2010, Università di Napoli, Federico II Routledge, pp. 151.

²⁶ Mejbahubbin, A., Scerbo, M., Izzo, P., Parrilli, M., Coccia, F., Ganga, V., & Anilir, S. (2009). *A Community-based Waste Management System for the Historic Centre of Naples*. Journal of Asian Architecture and Building Engineering. Routledge, pp.367.

The real awakening on the waste situation in Naples, was in 1994 when the government declared a state of emergency and assigned to the Campania Region its first waste commissioner. The state of emergency went on until May of 2008.

In the 14 years of emergency the public sector opened landfills in 1994, which were usually only owned by private entities. The landfills were then closed in 2001 by order of commissioner *Bassolino* which then ended with waste filling the streets of Naples.

After the state of emergency was lifted in 2008, the situation has not gotten any better. According to a paper written by environmental historian *Marco Armiero* and political ecologist *Giacomo D'Alisa*, the emergency regime did not only grant legal justification for environmental injustices but was a pillar for perpetuating it²⁷. The regime was made to silence the opposition while the illegal dispositions continued secretly with even perhaps the complicity of local governments of Regions and Municipalities.

In 2013, to counter the situation of the Land of Fires a “Pact for security and the rule of law’ was signed by 57 municipalities and local Prefectures²⁸. This led to ratifying Regional Law n. 222 and at the end the national law 6/2014, which contains “urgent measures for addressing environmental and industrial emergencies and to facilitate the development of the area”.

Today the situation still has not improved drastically in Naples. In the fall of 2019, there was still garbage in the streets and the trash containers were overflowing. The worry is that Naples will not change in the future.

There is hope though, a group of Environmental Justice (EJ) activists has gathered quite a following in the Campania area. These activists have for example indirectly contributed to introduce a new title in the Italian penal code dedicated to environmental crime and the

²⁷ Armiero, M. & D'Alisa, G. (2012). *Rights of Resistance: The Garbage Struggles for Environmental Justice in Campania, Italy*. Capitalism Nature Socialism, vol.23, Routledge pp.58.

²⁸ Berrutti, G. & Palestino, M. (2019). *Contested land and blurred rights in the Land of Fires (Italy)*. International Planning Studies. Routledge, pp.4.

massive mobilization in Naples that forced the national legislator to declare the burning of waste a crime²⁹.

3.2 The Camorra and the land of fires

Organized crime has been involved in the problem of Italian waste management since the 1980's and still continues to do it today. The dumping of toxic waste in the area of Campania is unfortunately not the only thing that the criminal organization does in the area.

Since the city of Naples does not have a successful waste collection, the Camorra has created a company that collects the cities trash. The disposal of the trash is then made by burning it or burying it under a construction site or in other places outside of the city. This kind of crime was pointed out in the book *Gomorra* written by *Roberto Saviano* who infiltrated to the organization to gather knowledge of their activities.

There are several ways that the organization disposes of waste. Sometimes the waste is dumped in the countryside, in the sea or in illegal caves and abandoned mines. Another way the waste is mixed with other materials to make buildings or to surface roads³⁰. The latter method is used not to attract attention, since burning or dumping the waste can be noticed quite fast.

To give an idea of the business that the criminal organization we can look at some statistics. *Legambiente* reported in 2002 that the earnings of illegal management of special (hazardous and non-hazardous) waste in Italy estimated to be almost 2.6 billion euros³¹. This amount of earnings is bigger than almost 99% of other businesses in Italy.

²⁹ Falcone, P., D'Alisa, G., Germani, R. & Morone P. (2020). *When all seemed lost. A social network analysis of the waste-related environmental movement in Campania, Italy*. Political Geography, vol.77. Elsevier, pp.4.

³⁰ D'Amato, A. & Zoli, M. (2012). *Illegal waste disposal in the time of the mafia: a tale of enforcement and social well being*. Journal of Environmental Planning and Management. Routledge, pp. 648.

³¹ Massari, M. & Monzini, P. (2004). *Dirty Businesses in Italy: A Case-study of Illegal Trafficking in Hazardous Waste*. Global Crime, vol.6. Routledge, pp. 289-290.

Both the EU and the Italian legislation create the possibility for waste crimes, especially trafficking. This situation is formed because the regulations on both are unclear even though it is unintentional.

With the EU, the ambiguous definitions of the essential terms included in the Waste Framework Directive (2008/98/EC) have led to inconsistencies amongst EU Member States implementation of the legislation on waste, when those regulations are to be transposed into the national laws of the Member States³².

In the Italian environmental legislation, is the generation of loopholes that stem from the simultaneous presence of two regulatory fields. The administrative one and the criminal one. Provisions on waste management are found in Regional and National acts. By having the Regions make their own statutes, these two regulatory fields make no sense together and create loopholes in different Regions.

The problem with the crime situation is also not helped by foreign press. For example, the British media, like the newspapers *The Guardian* and *The Independent* have written articles about Naples and the waste crisis that were characterized by preconceptions, false premises and omitted information³³. The situation could be helped if the foreign press would get accurate information about the criminal problems.

The situation with criminal organizations in Italy is fragile. They have a great power on politicians, the police and the citizens which leads to nobody trying to stop them from continuing to commit crimes. This is a major problem on the way to solve Italy's waste management and should be addressed. If the *Camorra* continues the illegal disposal of wastes, there will be more and more cases of cancers in the area.

In order to solve the continuous waste crisis in Italy, there is a need for stoppage of illegal waste trafficking and disposal. Only if this is stopped can there be a clean slate where to begin a new way of waste management in Italy. This could start with some legislative

³² Morganti, M., Favarin, S. & Andreatta, D. (2020). *Illicit Waste Trafficking and Loopholes in the European and Italian Legislation*. European Journal on Criminal Policy and Research, vol. 26. Springer, pp.118.

³³ Dines, N. (2013). *Bad news from an aberrant city: a critical analysis of the British press's portrayal of organised crime and the refuse crisis in Naples*. Modern Italy, vol.18. Routledge, pp.418.

solutions that will be addressed afterwards in this thesis. Now that the domestic view has been acknowledged, it is time to move to the involvement with the EU.

4 THE INVOLVEMENT WITH THE EUROPEAN UNION

After evaluating the problem in Italy, we turn our sight on how the problem could affect others outside of the country. The main focus will be on the European Union, mainly for the fact that it has given different regulations on waste management that the member states should follow.

One of these regulations being the Basel convention on the control of trans boundary movements of hazardous wastes and their disposal. In Italy's case the convention has not been fully followed as the control on dumping toxic waste in the area of Caserta is still a problem. Another important directive for this thesis is Directive 1999/31, known as the Landfill Directive. It involves for example, the categorization of landfills in 3 categories³⁴.

The focus point of this part is to find if Italy's problems are also a result of noncompliance with EU legislation. Then the topic will move to sustainable development and other issues that Italy might not be in compliance within the EU standards. Lastly, there will be a point made on why this issue is so important for the EU.

4.1 Italy and EU legislation

The EU has many different legislations on waste and its management and conventions and treaties they are part of. For example, under the 1991 Bamako Convention, (On the ban of import of hazardous waste into Africa, still bounds EU nations part of the UN) "hazardous wastes" are defined into four categories³⁵.

Another piece of legislation is the Basel Convention of 1989 on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. Both have been effective for more than 20 years and yet Italy does not apply them.

³⁴ Jans, J. & Vedder, H. (2011). *European Environmental Law: After Lisbon. 4th Edition*, pp.499. Groningen: Europa Law Publishing.

³⁵ Sands, P. (1994). *Principles of International Environmental law: Frameworks, Standards and Implementation (Vol.1)* pp.496. Manchester: Manchester University Press.

Article 2 of the Lisbon Treaty reads “The Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations, in order to help develop international measures to preserve and improve the quality of the environment and the sustainable management of global natural resources, in order to ensure sustainable development”.

When reading this article of the treaty, it can be seen that the decline of the environment in Italy is contradictory to the EU’s prime goals. Letting Italy “rot in its own filth” is not a possibility for the EU. But there are a lot more laws and regulations that Italy is not in compliance with.

The EU has given a great deal of different legislation towards waste management. Examples of this are directives on landfill waste (1999/31/EC), on packaging and packaging waste (2018/852/EU) and on electronic waste (2012/19/EC). The EU also implemented the 7 Environment Action Programme which set objectives concerning the waste policy in the EU. This included for example the reduction of the amount of waste and its hazardousness to make its disposal simpler³⁶.

Another piece of EU legislation that is worth pointing out to this subject is the Waste Shipment Regulation (1013/2006). This regulation aims to supervise and control shipments of waste in order to avoid illegal trafficking³⁷. The regulation applies to all international waste shipments that go in or out of the European Union. The regulation has not been obeyed in Italy as the situation of the Land of Fires has shown. Illegal trafficking is still happening in Italy and it should be assessed.

As for the actions made by the EU against Italy in the past, Italy received a number of both warning letters and reasoned opinions on article 169 of the TFEU on consumer protection³⁸. So, Italy has been warned of their behaviour of noncompliance with the EU

³⁶ Cecere, G. & Corrocher, N. (2016). *Stringency of regulation and innovation in waste management: an empirical analysis on EU countries*. Industry and Innovation, vol.23. Routledge, pp.629.

³⁷ Limoli, M., Grazia, E., De Pretto, A. & De Muri, C. (2019). *Illegal landfill in Italy (EU) a multidisciplinary approach*. Environmental Forensics, vol.20. Routledge, pp.27.

³⁸ Borzel, T. (2000). *Why there is no 'southern problem'. On environmental leaders and laggards in the European Union*. Journal of European Public Policy, vol.7. pp.144.

under certain aspects. The problem is that Italy has not been warned about the environmental problems that this thesis is covering.

While the EU has a great power over its member states, it seems like even with surveillance and warnings the EU has not done much to solve Italy's waste management problem. There is a need to for the EU to step up and help Italy in the time of need and better this relationship between Italy and the EU and the EU and all of its member states.

4.2 Sustainable Development

After evaluating the noncompliance with the EU legislation, we can move to the problem that Italy has with the EU's sustainable development. The definition of the is suggested to should be viewed as humanity's target goal of human-ecosystem equilibrium, while 'sustainable development' refers to the holistic approach and temporal processes that lead us to the end point of sustainability³⁹.

Sustainable development was introduced to the EU in the Lisbon treaty of 2009. The term is firstly met in article 2 and it is used with the concept of improving the quality of the environment by the member states. As it is obvious from the chapter on the history of the waste crisis, Italy is not promoting the improvement of the quality of the environment. Instead it is letting its environment be consumed and polluted.

The EU has issued a sustainable development strategy that sets standards on how sustainable development can be bettered. The strategy set objectives and actions for seven key priority challenges. Many of these challenges are predominantly environmental and include for example: Climate change and clean energy, sustainable transport, sustainable consumption & production.

Sustainable development is not only derived from an EU level. It is mentioned in the Rio Declaration on Environment and Development of 1992 made by the UN. Principle 4 of the Declaration provides that environmental protection should constitute an integral part

³⁹ Shaker, R. (2015). *The spatial distribution of development in Europe and its underlying sustainability correlations*. Applied geography 63, pp.35

of the development⁴⁰. Italy was one of the countries that signed the Declaration and has not been able to protect its environment as the Declaration demands.

The problem with the Rio Declaration is that it is not formally binding, so Italy does not have to worry about sanctions for not following it. Besides the point, the Rio Declaration is part of international environmental law and it introduced for example the “polluter pays”-principle⁴¹. The principle was also brought to the EU level in the Treaty of Lisbon and makes Italy therefore sort of committed to the Rio Declaration.

Sustainable Development and EU environmental legislation together. Italy has not been following either of them, it is time for the EU to step in and guide Italy in the right way. This could be done through warnings as they have done in the past or perhaps with stricter measures that will be looked into in the next chapter.

⁴⁰ Birnie, P., Boyle, A. & Redgwell, C. (2009). *International Law & The Environment, 3rd Edition*, pp.116. Oxford: Oxford University Press.

⁴¹ Birnie, P. & Boyle, A. (1995) *Basic Documents on International Law and the Environment*. Oxford: Clarendon Press. pp.9.

5 SOLUTIONS TO THE PROBLEM

After looking at the problems that are bothering the landscape and environment of Italy and how it is tied up to EU and international problems, we can evaluate some solutions to the problem.

From the information that this thesis has gathered the situation seems quite hopeless and unfortunately, it is not far from that. But there is always hope and some of these solutions that will be suggested could improve or resolve the problem that has been created.

The chapter will be divided into 2 parts. The first part will involve solutions that will help inside Italy to reform the waste management. The second part will then involve how the EU can help Italy to solve the problem and what it should do to nations that might have the same problem.

5.1 Solutions to the problem from a domestic point of view

The domestic sides of the problem are more about the system that has been created during the years. The constitution, the Regions statutes and criminal activity are hard to accept but also to change. But to make the situation better there is a need for change from the root of the problem to all the branches.

The clearest path to a solution on the domestic point of view would be to change the constitution, letting go of the Regions autonomy and statutes and establish clear and unified environmental laws with environmental crimes. Changing article 114 of the constitution is vital to change the current situation. The execution of it is quite hard though, since as mentioned before changing laws, especially constitutional laws is incredibly hard in Italy.

By letting go of Regional authority, there can be made a unified and undisputed environmental alignment with for example environmental laws and waste management laws. This way there would be no differences in surveillance, organization and even cleanliness possibly. Having a unified legislation about waste management could solve the problems with legislation and politics.

To tackle the practical problems that the issue has brought. There is a problem with the amount of waste in Italy the disposal of which does not happen. Instead of letting the waste stay in the streets, the suggestion is to create more waste disposal facilities and obligate the Regions to invest on actual waste management companies. This means picking up, clean and transporting the waste to the disposal points.

A solution to the problem of the cleanliness of the cities such as Naples could be answered by inserting environmental crimes to the penal system. By this is meant for example to add littering to be a punishable crime with the punishment being a fine that would push people into cleaning rubbish after themselves. This would start a habit that would help keep the streets clean and people more aware of their spoiling of the cities.

Lastly, to improve the situation on the health side of things there is only a single thing to do. The illegal burning of toxic and industrial waste must be stopped. The solution is easier said than done since the *Camorra* has been active for far too long and the only way to fight the organization would be a full-on war.

A paper made by Davide Antonioli, Federica Caratù and Francesco Nicolli⁴² gave suggestions on how improve the environmental policy on waste management in Italian provinces. The literature review that the paper conducted found interesting results to the question at hand.

Firstly, that landfill taxes and recycling incentives have been able to reshape European and national waste management systems. Secondly, policies have influenced innovation performance and supported the development of green technological change in the waste realm. Taxes and incentives would be used as a fear factor to push the waste management to improve. Developing green technologies then would help for example in the disposal of the wastes.

To solve the problem from Italy's point of view there is a need for changes. The Regions have too much power, the legislation is not on a great level and the crime organizations are destroying the countryside. Before asking help from the EU, Italy should investigate its own policies on waste management and change things for the better. Unfortunately,

⁴² Antonioli, D., Caratù, F. & Nicolli, F. (2018). *Waste performance, waste technology and policy effects*. Journal of Environmental Planning and Management, vol.61. Routledge, pp.1900-1901.

there is a possibility that this will never happen and that Italy is a sinking ship from which is better to get off than trying to help it stay afloat.

5.2 Solutions to the problem from an EU point of view

After discussing solutions on a domestic standpoint, we can move onto the way in which the problem could be solved on the EU level. Italy is one of the six nations that signed the Treaty of Rome and it has always been an important part of the Union. Therefore, it is in the interest of the EU to help Italy in the problems that it is facing as it is to help any other member state.

The most obvious way for the EU to do something about the situation in Italy is to make some changes in its policies. We can find some solutions from a study made by the European Parliamentary Research Service's (EPRS) Scientific Foresight Unit (STOA). The study proposes that there are challenges that the EU should find a solution to in waste management.

The study introduces 3 challenges that should be met. These are the prevention of generating waste, to align the objectives of waste management with those of the circular economy and to improve monitoring for evidence-based policy making⁴³. There are difficulties for some of the challenges for Italy, but some can be a solution for improving waste management in Italy from the EU point of view.

The prevention of generating waste is a hard subject, since Italy has a large population in a small space. Generating waste is a huge problem that cannot be solved in Italy until there is a better technology to dispose of the waste. Overpopulation is not the biggest issue; it is how the waste is collected and not disposed of properly.

Aligning waste management objectives with the circular economy action plan (CEAP) would help focus both on waste prevention and turning waste into a resource. The CEAP creates concrete proposal for changed regulations on waste treatments with specific

⁴³ Lee, P., Sims, E., Bertham, O., Symington, H., Bell, N., Pfaltzgraff, L. & Sjögren, P. (2017). *Towards a circular economy - Waste management in the EU*. Brussels: STOA. Pp.97.

targets and objectives set for waste streams. For Italy this would mean quicker process of finding new waste disposal tactics and to clean up the nation much faster of its problem.

Monitoring waste management has been a problem in Italy. There is no authority, especially in the South that would monitor: Who is in charge of collecting waste, how it is disposed of and where is it brought to be disposed of. By monitoring policy making in Italy by an EU representative, there could be a neutral party that only is there to make sure the Regions are staying in the boundaries of the EU.

Italy has been a part of the EU since the beginning after World War II. Both parties need each other to collaborate in order to solve this continuous crisis. If the situation is not answered by the EU, why should other member states listen to EU regulations? Because of this, the EU needs to do something that unites all the EU member states that have similar problems or could have similar problems in the future.

6 CONCLUSION

After understanding the problem, inspecting its various sides, going through its history and its involvement with the EU, this last chapter is going to sum up the thesis and state the conclusion of it. These solutions are theoretical and unfortunately do not have the proof of working but do seem like solutions that would improve the situation that this thesis has tackled.

Italy has struggled with waste management since the 1980's and it is still a problem today. This thesis went through the different problems in the question, the Regions and how they tie into the problem, the history of the problem and the involvement with the EU. Lastly, it suggested solutions on how the problem could be solved both on the domestic side and the EU side and how to apply these solutions.

The solutions suggested by this thesis on the domestic level are to change the Italian constitution. The constitution gives autonomy to the Regions to make their own statues on environmental matters and to implement them as they please. Another solution would be to insert environmental crimes to the Italian penal system, to invest on new ways to dispose of the waste created and to get rid of the *Camorra*.

The solutions suggested on the EU level are to improve the policy making in environmental law, aligning waste management objectives with the circular economy action plan and to improve on monitoring of waste management in the member states. This could include naming an EU representative to member states.

But are things like better waste management and sustainable development going to be achieved by the EU? Performances for the implementation of both general and specific goals and targets of the EU legislation in waste management have shown generally a

positive environmental and social consequences⁴⁴. There has been an increase in recycling in the EU, particularly with plastic.

If there has been an improvement in the implementation of EU legislation on waste management and it has been received positively, we can believe that at some point it will improve in Italy as well. When EU legislation is implemented more thoroughly into the Italian legal system, there can be a change in the Italian waste management situation that there has been for so long.

These theoretical solutions can be the factors that bring Italy's waste management into EU standards, or they can be used as inspirations to achieve the goal that was set. It is uncertain how the situation will progress in the future.

There can only be hope that after the pandemic of COVID-19 that has hit our earth the government of Italy will concentrate on the waste management problems and try to address them with perhaps solutions like suggested from this thesis.

If things go well then perhaps there can be a better tomorrow for Italy and maybe one day the people that once lived in the dark Land of Fires can enjoy the beautiful nature of the land and the fruits of their labour in peace.

⁴⁴ Di Maria, F., Sisani, F., Contini, S., Ghosh, S. & Mersky, R. (2020). *Is the Policy of the European Union in Waste Management Sustainable? An assessment of the Italian Context*. Waste Management, vol. 103. Elsevier, pp. 447.

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