Government's Deficiency of Communication and the Impact on Stakeholder's (Case of Yellow Waste WtE in Albania)

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Abstract

This study discusses how waste management and especially Waste-to-Energy (WtE) is an unfamiliar and non-accepted treatment process to citizens and key actors in Albania. The research aim to find out how the government at all levels have approached the communication of this sector, with the scope to increase awareness, disseminate information and build trust among stakeholders and mainly to citizens as the key stakeholder as the government decisions affect their daily lives. The research will intention to identify, explore and analyse the standings and reactions of key stakeholders in WtE process and to witness the impact of government communication policies and practices in the stakeholder's opposes, actions and resistance. Main challenges of central and local governmental communication on raising awareness and acceptance on WtE and stakeholders' participation and social movements will be identified under the loop of some engaged theories on this paper

Keywords: Waste-To-Energy, government communication, stakeholders, misperception, resistance, social movements, waste management, Albania

1. Introduction

Environment is not only the complex interrelating reality surrounding us; it includes us (Caldwell 1963). Environment in Albania have been considered for many decades (during and after the communist regime) as the "property of nobody". But during the recent decade citizens, media and other stakeholders have begun to understand its real importance. As researches and articles report municipal solid waste management (MSWM) has become a challenging environmental problem. Worldwide in both urban and rural areas have come across problems with disposal and treatment facilities that are inadequate to deal with the rapid increasing volume of solid waste.

Waste management is considered an important industrial sector in developed countries in Europe, while in Albania, yet on the stage of an emerging economy, it can't be considered an industrial sector yet. Thus far in Albania waste management is simply about waste disposal, and not yet waste is documented to be engaged as a valuable resource and be used effectively to preserve natural resources. The country is experiencing during the last 2 decades a critical situation with the waste management. The National Strategy of Waste Management (NSWM) and National Plan were adopted and approved by law in 2011. Central government is claiming that the total costs of integrated management of waste are around 200 million euro, which means a total clean-up of the environment, while the rehabilitation of the environmental hotspots in country around 500 million euro. Recently in country , government at all levels is facing the objections from the community and other actors involved, due to concerns about waste management practices proposed, specifically landfills and WtE plants.

(Galnoor 1979) proposes that secrecy interferes with the "people's right to know" and this seem to be an everlasting fight in the last 2 decades in country. Coming from a 45 year communist regime, citizens during 1990- 2000 generally did not showed interest on their right to know or be involved on policy making and decision. But after 2000, living behind a decade of transition, and where in the country were present various private media outlets, such as journals, radios and televisions,

citizens begun to change their state of mind and became eager to have and share information that affected directly their daily lives .

Nowadays in the e-era, the awareness on participation and the right to know, resistance and social movements has enormously increased. ITU[1] (2016) reports that Albania have the most significant progress in Internet uptake and in the growth of households with a computer, the latter having risen from just 4.9% in 2006 to 25.7% in 2015. The fixed-broadband penetration rate for Albania increased slightly from 6.5% in 2014 to 7.6% in 2015. While 62.84% of the population is reported as internet users for December 2017[2].

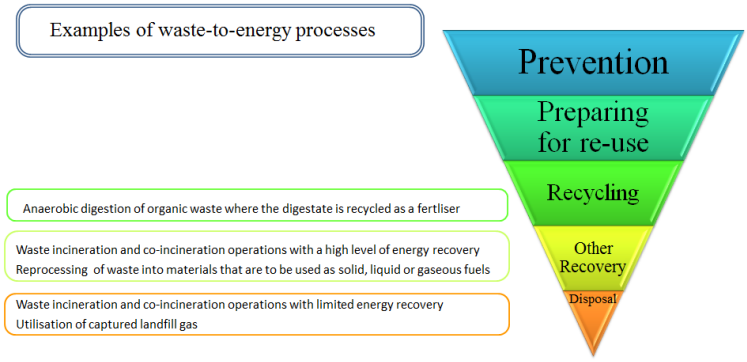
This study will aim to consider two perspectives E-waste as an economical potential and the opposing of the citizens to this treatment. The research will explore and try to find out if the objections and resistance of citizens and other stakeholders comes from low public awareness, poor stakeholder's participation or the governance "arrogance" to provide transparency and inclusiveness.

European affinities on waste management

"The recovery of energy from waste in the EU supports the objectives of the circular economy action plan and is firmly guided by the EU waste hierarchy" European Commission, 2017[3]

On their research Gawlik et al. (2018) suggest that Europe has an important role in the mitigation of the threats to the planet. Each city and municipality must recognize its own input to the harms even as assuming an accountability to encourage a more sustainable global environment. European Union perspective is positioning itself as *the global front-runner* in waste management[4]. The most recent developments and commitments of EU are aiming, that waste be considered as a valuable source by states. The waste management sector pursue a generally accepted hierarchy in Europe where prevention is positioned at the top as the most favored treatment and landfill disposal at the bottom as the less preferred process(see Figure 1, below). This hierarchy is advocated by the European Commission, as well as many governments in the Western Balkans, including Albania that has adapted by 2011 in the National Strategy of Waste Management

Figure 1: Waste Management Hierarchy



Source: European Commission[5]

[1] www.itu.int
[2] https://www.internetworldstats.com/europa2.htm. Accessed April 2018
[3] http://ec.europa.eu/environment/waste/waste-to-energy.pdf
[4] European Commission release February 2018
[5] http://ec.europa.eu/environment/waste/waste-to-energy.pdf

In the European legislation[1] the phrasing is:

a) The prevention of waste;
b) Preparing for re-use;
c) Recycling;
d) Other recovery, for example by energy recovery; and
e) Disposal

The European Commission adopted a striving Circular Economy Package (2015), aiming to revise the legislative proposals on waste and setting ambitious key actions, to reach the boosting of global competitiveness, fostering sustainable economic growth and generate new jobs. As per this package, the EU-28 countries are taking measurements as to ban landfilling of separately collected waste; reduce landfill to 10% of municipal waste by 2030; or to increase recycling of municipal waste to +65% by 2030. The "three R's" of waste management (Reduce, Re-use, and Recycle) is the considered as main objective for creating a sustainable life. The Eurostat statistics show that top leading countries in Europe for recycling are also the ones with higher incineration with energy recovery. European countries show progress and a serious commitment of states for the wellbeing of their citizens and statistics offer a clear picture on this serious engagement. Eurostat (2018) reports that comparing year 2016 vs year 200 municipal waste has decreased by 60% in land filling, has increased by 93% in incineration, and increased by 168% in recycling.

There are reported around 2000 WTE plants at global level. 431 WTE plants are installed in Europe and +30 WTE plants are under construction (Eurostat, 2015). Germany attributes the greenhouse gas reducing effects (a key component of climate change effects) to recycling and the harvesting of energy from waste[2]. Although the strategies and means varied, the goals of waste management proved to be resistant to change over time.

Waste Management in Albania; simply waste disposal

Waste management in country is not a recent concept, but to the attention and concern of public and media have come only recently. The central government is in charge for the policies and strategies of WM at national level, while the 61 Municipalities in country, are obliged by law to manage the waste. The National Strategy and National Plan on Waste Management were both approved in 2011. This strategic documents cover a 15 years period 2010-2025, and address the economic, environmental, social, legal and organizational challenges in establishing a modern waste sustainable management system. Some of the main goals set in these documents clearly show that country is in poor levels, to reach targets and objectives set. Some of the main goals as following:

- By 2015 separate collections must be set up for at least; paper, metal, plastic and glass; 2017 situation: the findings suggest that citizens do not separate the waste at home so far;

- By 2020 to stop growth of municipal waste produced, 2017 situation: there is not identified so far, any action plan or roadmap how the municipalities will prevent this;

- By 2015 to achieve 25% recycling and composting rate of municipal waste (by 2020: 55%); 2017 situation - INSAT reports that 25.3% was recycled by 2015 and an meaningful drop in 17.2% of recycling by 2016,showing that there is not a sustainability in the system or policies followed.

- Recover energy from 15% of municipal waste; 2017 situation - INSTAT reports that only 0.69% is recovered by 2016 (all hospital wasting) , the findings of this study will show that the actual government actions might reach and exceed target by 2025.

[1] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, Article 4 Waste Hierarchy
[2] Federal Ministry for Environment, Nature Conservation and Nuclear Safety 2016
https://www.bmu.de/fileadmin/Daten_BMU/Pools/Broschueren/abfallwirtschaft_2016_en_bf.pdf

- Reduce landfilling of municipal waste from around present 90% to around 30%; 2017 situation - INSTAT reports that 77.7% of the waste is disposed in landfills in 2016, whereas European Commission in the Albania 2018 Report, recommends that over 300 non-compliant landfills need to close.

The reports (Europe Commission, World Bank, GIZ Office Albania) recommend that waste management in Albania is at poor levels and the institutional capacity to manage waste still remains weak at all levels; while waste disposal (landfilling) remains largely noncompliant with environmental protection standards. Recycling in country is reported as a largely informal sector. MSW uncontrolled dumpsites cause serious environmental impact on human health firstly, because of leichate formation (the polluted effect of which lasts up to 300 years in MSW landfills [11], and, secondly, because of the biogas generated during decomposition of organic waste (Alcani & Dori 2013). According to the Albanian Association of Recycling Industry (AARI) there are around 60 recycling companies, which collect and process different types of waste; metal scrap, paper, plastic, textiles; electronics and used tires. It is estimated that are around 35,000 individual collectors in the entire country, but 30.000 of these waste pickers work in black (informal). Most of waste pickers is described to come from Roma and Egypt communities that live in country (UNDP Albania) and there are children under 14 used as a work force. The informal individual collectors play a significant role for recycling waste collection as the main source for recycling industry in country. GIZ (2017) reports that these people tend to be unequipped, untrained, and without formal agreements with the buyers. The individual collectors and informal collection businesses are serious subject to risks to human health and accidents due to poor working conditions and seem vulnerable to market failure or price drops.

The Republic of Albania Constitution present that the republic must maintain a healthy and ecologically suitable environment for the present and future generations. Natural resources are to be rationally exploited consistent with the sustainable development principle.

While INSTAT[1] reports that Albanians pay around 300 million euros, as 2.77% of GDP, in the format of environmental taxes, yet the country is reported, as the most contaminated from urban waste and with the worst waste management system in the old continent (Reporter.al)[2]. In EU-28 the environmental taxes reach an average 2.4% of GDP of states[3] .

World Bank (2016) recognizes that improving solid waste management, especially in the rapidly growing cities of low income countries, is becoming a more and more urgent issue. GIZ Albania (2017) identifies that even though there are no official data (statistical data), a major part of collection points run informally as well, and some of them are part of the collection networks controlled by recycling companies. Yet, the informal sector plays a significant role in waste management, especially through informal waste collection and recycling of recycled waste. The International Solid Waste Association - ISWA (2012) reports that in Albania it is recognized that very limited recycling takes place, but as no accurate data exists the actual amount is unknown.

While education and raise awareness is one of the 4 main pillars of the NSWM of Albania, yet they are reported to be at poor levels. 95% of Q1 respondents in this study consider waste management at poor level and 90% of Q1 perceive waste management as the process of throw waste in bin and be collected by the Municipality. 100% of Q1 responded they awareness to waste management process is poor or very poor. 100% of Q1 acknowledged that never not in a single case separated the waste at their home, while 45% of them responded that in outdoor areas (roads, commercial centers, public spaces they accurate to through waste as per the indicated bins). 55% of Q1 respondents acknowledged that do not understand what the recycling process is. 100% of Q1 were well educated 100% had a bachelor degree, 55% of them were holding a master degree, 100% living in urban area of capital city, Tirana.

Empowering recycling from the separate waste at home, Albania is reported to have failed up to date, but studies suggest that people are motivated to recycle by pressure that they receive from the surrounding environment, family and friends

[1] The Institute of Statistics, Republic of Albania, Data for 2017 year http://www.instat.gov.al/media/1444/taksat_e_mjedisit_2008-2015.pdf

[2] http://www.instat.gov.al/media/1444/taksat_e_mjedisit_2008-2015.pdf

[3] http://ec.europa.eu/eurostat/statistics-explained/index.php/Environmental_tax_statistics

(Bilz and Nadler, 2014) and the more people see recycling as effective, the more likely they are to participate (Bezzina and Dimech, 2011).

Table 1: The recycling industry in Albania

Year	No of companies registered in AARI	Workers	Capacity of production (Ton/month)	Value of market million / €
2015	38	2,073	41,540[1]	243.2

(Source: The Albanian Association of Recycling Industry-AARI)

The capacity of thes companies is around 498,480 ton/year, which is cosidered to be exhausting to treat all recyclable generated waste in country, if teorically we will supose that it will be realised in a very high percentage

INSTAT (2016) reports that in Albania are recycled around 224,115 ton/year[2], or 17 % of the urban solid waste (including non urban waste which accompany the SMW). As AARI claims for the lack of the raw material, this industry has engaged only 26.8 % of the production capacity or 133,592 ton/year. Some of the companies are reported to have reduced their size capacity, some of them to be closed and others to move in other countries in region.

Table 2: Comparative data on recycling, Republic of Albania

Year	Source	Recycled waste (ton/year)	% versus the total os urban solid waste
2016	INSTAT	224,592	17%
2016	AARI	133,592	10%

Yellow waste in the emerging economy of Albania

Waste is a complex issue and WtE or yellow waste is yet a non-wide accepted process. Yet the global WtE market is forecasted to grow 37.64 billion Usd by 2020, up from 25.3 billion Usd in 2013. Brunner et al. (2015) reports in his study that in modern countries, energy in MSW and other wastes amounts to around 5% of the total energy demand.

The most common form of recovering energy from waste or Waste-To-Energy (WtE) is incineration. Trash is burned, creating steam to rotate turbines and provide electricity and heating. From the reviewed literature, it is clear that WtE in developed countries and specifically in Europe have been developed to a large scale. However, not all environmental issues have been dealt with. The most important issue in the global knowledge system is that these technologies are privatized and, even between developed countries, information technologies is not shared in the interest of environmental problems or public health worries generated by inefficient SWM systems.

In developing countries and mostly low and middle low economies the scenario is offered worse. Collection, transportation and disposal of solid waste are the current challenges. Whereas developing countries produce environmental goods for free, developed countries produce knowledge which is put up for sale to both developed and developing countries. Technologies of WtE-s in developing countries need to be implemented in order to maximize the environmental goods in the world, reduce poverty and increase energy production from waste. In Albania as researchers (Diego Moya et al.)2017) report that in the context of developing countries, there is a lack of the use of these techniques. IFC (2011) suggests WtE can be a feasible component of Integrated Solid Waste Management programs in large cities, where space for landfills may be limited and the choice of location may be politically complicated. Studies propose that a WtE facility can also act as a lack of encouragement to other, more economically and environmentally sound, waste disposal options. Moreover,

[1] Duke përjashtuar impjantet për procesimin e drurit me kapacitet rreth 8000 ton/muaj
[2] INSTAT, Urban Solid Waste in Albania; Tirane, 21 September 2017

municipal waste in Eastern Europe and Albania is typically moist, due to a high proportion of biodegradable organics and is, therefore, barely autogenic (i.e., with a sufficiently high heating value to burn without a supplementary source). The reports show that in Albania at national level 47.36% of SMW are organic waste[1]

Despite these inherent limitations, however, researchers and practices suggest that WtE may have an important role to play in waste management in major contributions in Eastern Europe in the future and they appeals much interest in view of possibilities to minimize landfilling need and to convert waste into a resource.

Researchers propose that since the willingness to pay for waste management ranges between 0.2% and 0.4% of GDP (Brunner and Fellner, 2007), and incineration costs are around 100 US$ per ton of MSW, WTE it is out of the reach of countries with a per capita GDP of 300–3000 US$. Albania for 2017 have a forecast per capita GDP of USD 4,470.5 by International Monetary Fund[2]. Even though energy recovery from waste have been part of NSWM Albania since 2011, it have not been experienced up to 2017. The first WTE Plant started to operate in Albania from April 2017 in Elbasan District. The WtE plant of Elbasan District recover waste to energy and produce energy for heating, electric power and industrial steam.

In country has lack of knowledge and expertise for such treatment processes in technologies and engineering construction, the WTE plant of Elbasan was managed and supervised by western countries experts, whom also lead the managing process of the facility.

Table 3: Main indicators in districts of WTE plants, Albania

Districts	Population	Urban Waste generated 2016 /ton	WTE capacity ton/day	Type of Contract	Actual Status
Elbasan	287,606	105,834	120-140	PPP - concession agreement	At Work: April 2017
Fier	305,108	162,564	180-200	PPP - concession agreement	Under construction
Tirana	842,981	509,103	550-800	Private Investment - concession agreement	Under procedures, contract signed August 2017

Source: INSTAT, ATRAKO

While WtE is a reality in country; strong opposes have come for this treatment process from different stakeholders, claiming the government hidden agenda. In Albania the import of waste, including the green waste list of EU, is prohibited by law (September 2013). Civil society and academics claim that the capacities of these WtE plants are larger than the waste generated (even though data offer a different interpretation) and they calculate that these 3 plants are projected to treat 44% of the waste at national level, which will limit and not encourage the recycling in country. Given this fact they claim that the government is tending to allow the import of waste, to "feed" these facilities with raw material. Wiedemann and Femers (1993) propose that the hidden agenda of the government can create conflict. In an effort to appease the general public without really including public interest groups in a evocative way, bureaucrats may offer citizens a token role in the decision-making process to give the appearance of public participation. WtE in Albania is identified in this study to be an unfamiliar concept to media and citizens up to 201. Journalists would not clearly identify the difference between disposal and recovery, while acknowledge that they have faced the e-waste concept during the procedures for WtE plants of Elbasan. 100% of Q1 respond that the 1st time they heard about WtE is only in 2015. In Albania there are not identified local experts in WtE segment, as part of the waste management hierarchy and international expertize is demanded.

Goverment perspective on yellow waste – outside the framework of papers

[1] INPAEL& Co-PLAN's Survey, in the framework of National Waste Management Plan, 2009
[2] https://www.imf.org/external/pubs/ft/weo/2016/02/weodata/index.aspx

Countries are taking commitment and actions for the wellbeing of their citizens. Albania and around 200 countries signed Paris Agreement, COP21 and have committed to Agenda 2030 and the Sustainable Development Goals (SDGs). Humanity's entire life support system relies on well-being of environment in 360 degrees. For the past thirty years waste and its management has been in the center of EU environmental policy and the legislation and directives have changed dramatically and the green economy is in the heart of the sustainable economic development. As ISWA suggests waste authorities in developing countries seek know-how on the potential to implement WtE profitably. The authorities often seem to face many confusing and sometimes misleading information about technologies. Boudewijn, Bob (2015) suggests that for countries with emerging economies on recovery stage of waste hierarchy in WtE's should consider it as a strategic option missing business case and expertise, even though there are obstacles as air pollution control. In Albania the environmentalists in their resistance and objection on WtE treatment have identified the missing methods of government at all levels for the control of the air pollution from these plants, and consider this a key limitation to make WtE process trustable for public. Diego et al. (2017) suggested that these technologies in developing countries need to be implemented in order to maximize the environmental goods in the world, reduce poverty and increase energy production from waste.On the other hand studies report that states should consider that if incineration is not cost competitive, market penetration will be difficult and this is presented as a challenge for emerging economies (Brunner 2015), as energy plants propose high costs high costs.

Caldwell (1963) identifies the concern for the environment is the business of almost no one in our public life. "In Albania during the last decades the environment was considered as the less important issue for the public opinion, behaving with nature and what surrounds us, as it is the property of nobody, meantime we should be aware that environment it is our common treasure and be the priority of a society" Lefter, Koka, former Minister of Environment 2014.[1]

The NSWM and NPSM documents (2010-2025) are in a process of revising (since October 2017), by central government, as the institutional efforts to find the right economic instruments to promote recycling and prevent waste generation remain yet limited and are reported to have failed. Albanian central government have not adapted yet a tool to forecast waste production scenarios in years, which would help to predict waste, as an economic potential and also a clear picture of WtE facility's needs. Local government as directly in charge for SWM is facing an acute situation on the sector and citizens complain on merely get this service. As World Bank suggest for most low- and middle-income countries, waste collection rates are low and formal service does not extend to all communities. In Albania, waste management tariff is included in the invoice of the drinkable water, therefore local government claim that they can't offer quality and service, if citizens are not paying. As per the data of ERRU (Albanian Water Regulatory Authority) (2018) at the national level the cashing rate is showing decreasing. "Water with no incomes" remains yet at high rates with 65% by 2017."[2]

Experiences in EU states prove that managing waste properly is essential for building sustainable and livable cities. Effective waste management is expensive, often comprising 20%–50% of municipal budgets as data reports. Operating this essential municipal service requires integrated systems that are efficient, sustainable, and socially supported. While in Albania 65% of citizens do not pay, as they are not invoiced and 16% of citizens that are invoiced refuse to pay (ERRU, 2018). Local government have no capacities yet to change the situation and no budgeting enough for waste management, even though INSTAT (2017) reports that the waste management community service are offered to 68.7% of the population.

The PPP concession agreements of Elbasan and Fieri Districs to build WTE facilities are considered by municipalities(that are experiencing or expect to experience this process), as best solution to raise awareness to the citizens on waste as a precious resource and to solve the emergency of the environmental situation.

Governments at all levels engage stakeholders through public hearings, public discussion or other form of awareness, but Albania outside the legal framework and commitment in papers offers another scenario. Not any awareness campaign at national level is done for waste management, for the time period 2012 – 2017. Few campaigns for dissemination of information and public awareness are identified, as isolated cases done to specific targets and community at local level, as

[1] Lefter Koka, OP-ED, Former Minister of Environment [Accessed March 2018 http://gazeta-shqip.com/lajme/2014/04/10/mjedisi-ne-qender-te-opinionit-publik/]

[2] "Water with no incomes" is the indicator of water quantity, which is not invoiced to citizens/business/others even though, they get the service of water. ERRU explanation

part of project of the international donors. Studies in country (REC 2015; Guri 2016) suggest, that the information and awareness the citizens have on environment and waste management is generally low and poor.

Scholars suggest that factual public participation in policy-making can't be considered just a consultation and it requires transparent democratic processes, forums for deliberation and authentic participation of different stakeholders. There were not found evidences that Albanian government at all levels applied this practice properly. The construction of the incinerator facility in Elbasan (2017) didn't opposed the citizen's resistance, but civil society and media were positioned clearly against it. While the facility of Fieri (under construction) is facing a 2 year ongoing resistance and movements of the citizens through protests, claiming that their awareness and participation have not been acted properly. Even though the 3 main actors on WtE reality in Albania; citizens, media and civil society are ceaselessly opposing incineration with energy recover in District of Fier, the government yet suggest it as a good strategy and economical benefit for the district, but not being able to offer clear proofs on willingness to communicate and transparency. Brunner (2015) recognizes that main purpose of waste management is to protect men and the environment. In many countries, modern waste management fulfills this purpose so well that it has almost faded from the public attention and have found large support and level of acceptance by society.

Literature review

As this research is having a many-sided scenario and various stakeholders are involved, it will attempt to explain the standings and engagement of some main actors under the loop of several theories, suggested by researchers on environmental issues. Tansey & O'Riordan 1999 suggest that *culture theory* can help to identify the various strands of interest, to explain how values and outlooks are shaped and connected, and enable facilitation of thought so that new frameworks of trust are built. Various scholars propose that possible applications of cultural theory for health risk management. Cultural theory has evolved over the past 30 years, to become an important framework for understanding how groups in society interpret risk and build trust or disbelieve in institutions creating and regulating risk. Cultural theory is a way of interpreting how and why individuals form judgements about danger, pollution and threat. In this theory hence to answer the question "How safe is safe enough?" there can be no satisfactory answer. While several researchers ask instead "How fair is safe enough." The awareness and education programs on waste are insufficient to respond to actual situation and challenges. *Theory of Communicative Action*, Habermas (1981) expanded upon the theory of communicative action by using it as the basis of his theory of morality, democracy, and law.[6] The communicative rationality has a deep-seated interest in understanding social interaction (Khisty and Leleur 2010). When communication is free and open and the political culture is egalitarian, the normative grounds that are generated in such processes should guide the political decision-making process (Flynn 2004). The *protection motivation theory (*PMT), first introduced by Rogers et al (1975), proposes an extended theory (Rogers, 1983) to a conceptual a persuasive communication, which stress on cognitive processes arbitrating behavioral change. It offers a structure to explain factors forecasting risk preventative behaviors. PMT assumes that individuals' decision to participate in risk preventative behaviors is made based on their motivation to protect themselves from threats such as natural disasters, global climate change, and nuclear explosion. People poise different risks and potential benefits. Researches worldwide have been highly appealed to study *social movement theory* in different perspectives Morris (1994). Pinard's (2011) with c*ollective behavior theory* helps to better understand the core motivational factors of conceptualization: framing activities and collective identity. Collective identity is important for social movements, since it has a strong influence on collective action. Collective identity is related to cultural dimensions such as ideology and solidarity, and studies show that engagement can be motivated by an interest in socializing with people with similar interests (Bruyere and Rappe, 2007). Most of studies of social movements in Albania are mainly focused in political context. Few studies and researches are identified in environmental context. İnaltekin (2016) proposes that the Albanian environmental movements be best described by "resource mobilization" theory and new social movements. Kekezi and Kruja (2013) studied consumer movements in Albania in the framework of the new social movement theories and suggest that the nature of goal for these movements was both tacit and explicit

II. Methodology and Limitation

Interpretative research with a variety of interpretive methods lead this research, and elements of exploring research and empirical research are comprehended. Both primary and secondary data were important to lead this study. Main challenges and limitation of this study is the limited secondary data on waste management in country and especially waste-to-energy in Albania; limitation on researches of public perception and movements on environment risks

Primary tools engaged for this study

Identification	Tools	Participants	Profile	Descriptions
Q1	Electronic Questionnaire	Citizens	Living in Tirana, urban area	290 respondents
Q2	Semi Structured Interviews	3 Lecturers in Universities of Tirana Waste management Expert		Jamarber Malltezi, Diana Mile, anonymous Vladimir Bezhani
Q3	Phone Interviews	Local government	Municipalities of Elbasan, Fieri, Tirana	5 Officials
Q4	Phone Interviews	2 citizens/local community actively engaged against Fieri WTE	Citizens profiling: Born and living in Verria Married with kids	Living in Verria, Fier
Q5	Direct, Phone, electronic Interviews	central government	Ministry of Energy and Infrastructure, Ministry of Tourism and Environment	4 Civil Servants Officials
Q6	Semi structured Interviews, along with mapping actions in media	Environmental activists	Activists profiling: Live in Tirana 25-31 years old Years of activation: 5-7 years Engaged in a min. 20 environmental movements/each	3 activists
Q7	Semi structured interviews, Phone interviews	Journalists/Reporters	Television and investigative online media outlets	8 respondents
Q8	Semi structured Interviews	The business corporate representatives of WTE Plants	Elbasan, Fieri, Tirana	Elbasan, Fieri, Tirana
O1	Observation on sites	Waste Pickers WTE plant Landfills and legal and illegal dumpsites	Tirana Elbasan Districts Tirana, Durres, Elbasan	10 sites in urban area & Sharra landfill 1 WtE site 20 sites

Netnography	*Stories*	*Stakeholders*
Content, Photo & Video Analyses	65 stories	Citizens resistance/movement
	30 stories	Fieri citizens resistance and protests against WTE Plant
	25 statements	Civil Society on WTE
	40 statements/mentions /stories	Local Government (Elbasan, Tirana, Fier) – WTEs
	35 statements/stories	Central Government

Televisions/webapages	Newsportals/webapages	Social Network platforms/Civil Society

Top Channel	reporter.al	Facebook page- Nisma Thurrje
Report TV1	faxweb.al	Facebook page – Verria
OraNews TV	hashtag.al	Facebook page- AKIP
News24	panorama.com.al	
TV Klan	exit.al	

III. Awareness deficiency of stakeholders

According to Alain Touraine (Lim and Kann, 2008), "the state (strict state control), the market (very large corporations), and the domain of communications and media (advance in communications technology) are gradually diminishing the liberty of the individual, failing to guarantee individual freedom, equality and fraternity" in post- modern society. Caldwell (1963) recommends that environment as a focus for public policy has thus grown out of past experience, but its major development extends into the future. MSW is proposed as a valuable renewable energy resource and as worldwide opportunity of energy recovery (Diego Moya et al. 2017). The risk for decision-making is that in a *post-factual world,* if scientific truth is not reaching society, society creates its own truth based on perception and fascinatingly emotions (Higgins 2016). On his study Higgins proposes that this understanding is near to sustainability subjects such as waste which become more socially relevant the closer they appear to human habitats. Aside from suitable policy, strong technical support and sufficient funding, public awareness is an important component in WM program. Everyone needs to have a proper understanding of waste management issues.

Public participation

Scholars suggest that residents in developing countries, especially the urban poor, are more severely impacted by unsustainably managed waste. There is a rising body of literature on public participation in environmental valuation and decision-making, which several authors (e.g. Antunes et al., 2009; NRC, 2008) have proposed a set of critical issues to be considered in the setup, design and management of participatory processes. Within the broad scope of public participation activities, stakeholder engagement represents a concerted effort to involve the people who have a bet in the result of the decision being made (Soma and Vatn, 2014).

Toumela (2002) argues that there is much communication (e.g., dialogue) that is best understood as joint or collective cooperative activity requiring orientation to collective intentionality for its clarification. Toumela considers communication as a primarily tool, often central, for mediators to achieve their extra linguistic goals and to satisfy their extra linguistic needs and interests. Forced pressures from activists and legislators are reported to contribute to companies' decisions to take on practices that increase their legitimacy by making them come into sight greener (Hoffman and Ventresca 2002; Milstein, Hart, and York 2002). Other scholars argue that environmental civil society organizations are key stakeholders that, under certain circumstances, may influence companies to improve their environmental performance (Hendry 2006; Lenox and Eesley 2009). Power involves the relative ability of an actor or group of actors to change the behavior of others Hancock and Vivoda (2014). Some groups hold greater capacity for shaping social action as compared to others (Stirling 2014) as in "power over" others (Boonstra 2016). This understanding of power reflects that of Max Weber who sight power in terms of the possibility for an actor to state their will in the face of resistance, through whatever means available. As Lakioti et al. (2017) recommend in their research the active involvement of society appears to be a key factor in improving understanding of people's behavior and establishing a high degree of confidence on SWM. Kekezi and Kruja (2013) suggest that Albanian activists believe in change, as core element of a social movement is the goal (Touraine 1981). In Albania access to information and inclusiveness remain yet a major challenge. Stakeholders[1] have pointed out as major issue the restrictions for the Albanian citizens and civil society to access the information about sensitive cases.

[1] Reefer to Mr. Mihallaq Qirjo, Director of Regional Environmental Center in Albania http://eurokonventa.al/en/aarhus-convention-and-the-situation-in-albania/

Government: (non) Inclusiveness and (non)communication

Environment is becoming lately the focus of consideration to policies and commitments of Albania, due to huge shock of deforestation; ground pollution and air water; climate change; wildlife and biodiversity loss. As Wiedemann and Femers (1993) suggest Albanian government at all levels should view public participation as means, and not as goal. Caldwell (1963) present the perspective that no massive research is required to document the inadequacy of our environmental decision making. Governance of the megalopolis presents a host of problems nowhere adequately solved and, in many cases, not yet sufficiently defined. According to Habermas, human beings possess two fundamental cognitive interests: a technical (or instrumental) interest and a communicative (or practical) interest, dependent on work and interaction (Khisty and Leleur 2010). The new Law to Public Information in Albania[1] (Law No. 119/2014, Republic of Albania) obliges all national, regional and local government entities to offer any information of public interest to any individual that necessitates for i, t implement and manage websites for the dissemination of information of public interest. Government at all levels in Albania claim to have make the decision for WtE treatment, based to the objectives of the strategies, but also as the feasibilities offered were correctly assessed (ISWA). The country have committed the SDGs Global Agenda 2030 and has signed the Paris Agreement, COP 21 and WtE is a tool that will support this pledge.

On the other hand is reported that citizens in country have poor information, awareness and understanding on waste management. Recycling is yet on the conceptual phase on citizens. Facing a situation of many illegal dumpsites and many landfills out of EU standards, the government is facing also the pressure of losing land considering the high level of disposal in country. The full rehabilitation and closing of 300 dumpsites identified require heavy financial costs.

Researchers identify that the information effect has a higher impact when focusing on future environmental risks (Hill and Daniel, 2007), and particularly on risks related to human health (Madajewicz et al., 2007; Orset et al., 2015). Government approach to stakeholders for WtE facilities in Albania suggest not to not tend a communicative action as Habermas (1985) proposes. "Consent and influence are—at least from the perspective of the actor—mutually exclusive mechanisms for coordinating actions. Communication processes cannot be undertaken with the intention of reaching understanding [consensus] with a participant in interaction and simultaneously influencing him, that is having a causal effect on him" (Habermas 1985, pp. 153)

ISWA (2017) recommends all that the technical aspects in a feasibility study (waste availability and quality, technology choice) are crucial for decision making, and Albanian government claim that feasibility studies have been a key component on their decision for the procedures of 3 WtE facilities in country. Even though government claim that all proceedings have follow strictly the involvement of public participation, civil society and academics are claiming that secrecy and missing transparency of government in this aspect make the process not reliable.

ISWA remarks that WtE is most often more expensive than controlled landfilling. While landfilling in Albania is suggested to be out of standards and a real health risk to citizens, government claim that WTE plants are more profitable to the economy, with lower risk of pollution of environment and to human health and more free land

Table 4: Comparison of indicators WtE vs Landfill Costs in Albania

Treatment	Longevity	Benefiting	Total Cost (million euro)
Landfill (Vlore)	20 years	N/A	24
WtE Facility (Elbasan)	50 years	Energy	28

Source: Ministry of Environment, Ministry of Infrastructure and Energy (2017

Researchers (Alcani & Dori 2013) call further studies related with the attitude of the public and leaders of local authorities related to waste management in Albania. (Slushaj & Arapi 2012) findings suggest that the public is rarely involved in consultations and its opinion in drafting the legal and policy framework is not taken into consideration, which has hindered

[1] Entered in force in September 2014

the implementation of policies and legislation. "Local government obliged by law to raise awareness and include citizens on WTE plants have failed to do so" state Sazan Guri, 2017 Associated Professor and environmentalist.

Citizens in developed country enjoy the right to information, participation, and, in the event that a citizen is party to proceedings, legal recourse against the granting of an approval. While in Albania researchers suggest that a multi-stakeholders' approach is important in defining rules of the games in order all involved and impacted by these processes, could have a say at the early stage (Bagaviki, Elda 2018 pp. 61)

Gutberlet (2008) suggest that collaborative forms of local policy shaping enhance the decentralization of processes and devolve decision-making power and responsibility to the local levels of government. As a consequence, the governing body is closer to the people, and power is returned to the local level. Active participation of the involved stakeholders is essential to adequate resource management, and to deliberative democracy. Cultural theorists argue that social debates about risks cannot be reduced to concerns about safety and demonstrate instead how they are inseparable from issues relating to power, justice and legitimacy. What cultural theory does do is to criticize the apparent depolitisation of risk issues—the subtle process of taking for granted the link between hazard identification and the normative choices that follow. With an emphasis on fairness, Renn, Ortwin (1995) looked at how democratic procedures should be based in terms of building trust, including representativeness, generating non-distorting communication, and reaching open consensus; through key issues as *inclusiveness* and *consensus building.* McCarthy (2004) suggests that western experiences and case study as AEB in Holland have allowed sufficient time for the community relations programme. He emphasizes the importance to start early enough to allow plenty of time for all involved to digest and discuss the information received. 82% of the respondents of Q1, show no trust on any good purpose of government initiative on WtE. While 100% of respondents of Q2, Q6 and Q7 are doubtful for government practices and initiatives on WtE plants.

The outsiders – citizens resistance

The WTE plant of Elbasan, the 1st one in Albania didn't face any citizen's resistance or movements, possibly given the fact that Elbasan have been considered in many decades as one of the most polluted city in country and any investment of any form was identified by citizens as a solution. The opening of WtE facility had large coverage in all media outlets in country, where the active opponent voice was the civil society.

Gutberlet (2008) consider social movements as crucial to promise participation and bring various stakeholders into the arena. In many instances they are the motors to ensure a fair and equitable government and function as barometers to monitor impact and progress. World Bank defines citizen engagement as a behavior change and public participation key to a functional waste system.

Professional and academic interest in understanding what drives citizens to engage in community groups and self-mobilization activities has led to a wide range of studies in different research disciplines, focusing on both established social movements and more spontaneous forms of citizen mobilization. Researchers (Schmitter 1991; Arnstein 1969) suggest that greater levels of citizen participation, such as direct citizen offer stronger models of democracy, while the identified group of citizens against WTE plant in Fieri, were a small group of citizens, who represents 50 families that live in Verria, Fieri (village where WTE plant is located). Studies show citizens' self-mobilization (as defined by Pretty, 1995) and local community groups are recently acknowledged as playing an important role in the making and implementation of present and future environmental use policies and researchers suggest that community groups and citizens' self-mobilization seem in many cases to be organized by a minor group of citizens who are highly engaged in community matters (e.g., Campbell, 2013; Applegate, 1998). The villagers of Verria claim that they were excluded/not informed for participation by the public hearings and consultations. 87.2% of the respondents of Q1 and 100% of Q7 think government is not willing to access participation of citizens. 10 out of 10 in Q7 think that government mis-target actors involved on porpoise and not because of lack of capacities. In Albania there are reported successful approaches on this direction, the roadmap of Trans Adriatic Pipeline – TAP Albania as a corporate business

Agovino et al. (2018) propose that the waste management process is optimized when citizens and local government jointly adopt appropriate behavior. McCarthy (2004) suggests that WTE plant can be accepted by citizens if information, transparency, real involvement and proper communication in understandable language is done. Habermass suggest citizens to mobilize and increase the communicative power of public debate until it could surpass or at least equal the extent to which money and administrative power coordinate action 'behind their backs'. (Flynn 2004). 63% of the respondents of

Q1 on this paper suggested that they are against WTE plants in Albania, and 47% responded they do not have an opinion. 100% of respondents they have no knowledge at all on WTE process.

Constant protests (case of WTE plant, Fieri District)

"We do not trust the promises of the Prefect. He didn't even accepted to make them public in media – citizens of Verria, one of the protest against WTE Plant (Fier, 21/11/2016)[1]

Wiedemann and Femers (1993) propose that public participation procedures do not necessarily improve conflict resolution, or lead to better, more widely accepted decisions. On the contrary, in many cases the participation procedures themselves created new conflicts.

Protests against WTE Plant in Fieri begun during November 2016 and are yet active (20 April 2018)[2] . There have been arrested protesters, by policy of state several times. They do consider the government as their main enemy, but not the same approach for the company of WTE plant.

They report that several times discussed with the company of WTE Plant, without municipality presence. They perceive media as their main ally to their cause and civil society as a supporter and facilitator. Not involving the families where the facility have begun to be constructed in any of public hearings or consultations, is the key driver to them suspecting that the plant will cause cancer and will poison their lands.

In Albania there are reported several movements in sensitive cases where citizens; media and civil society have moved the same direction for the same environmental cause, but also there are reported cases where citizens have been against civil society and media, reported in media (2016) as "Divjaka against Divjaka" case [3](in the public hearing the citizens opposed the civil society which was opposing the construction of a touristic resort as a strategic investment in Divjaka-Karavasta National Park). 93% of the respondents of Q1 would join with in such a cause as Fieri case, but in Tirana is not yet reported or identified any opposing (even sporadic ones) from citizens on the WTE plant project.

Civil Society – a shadowy road

Civil society in decades have showed to be extremely effective in highlighting inequalities in who bears environmental burdens and who gets the welfares of environmental investments.

While the articles and reports (Gemille and Bamidelle)[4] suggest that the Aarhus Convention envisions a process by which NGOs could seek judicial remedy against other parties, such as national governments or private sector entities, for environmental harms or crimes. Researchers in UK (2004) report that risks to human health from incineration are small in comparison with other known risks. Decision-makers acknowledge the role of incineration with energy recovery as a sustainable waste management option although the priority must be waste minimization, reuse and recycling. The western countries in their waste management strategies suggest prevention and WTE treatment are not contradictory, but rather complement each other. CEWEP[5] suggests that WTE does not compete with recycling – it goes hand in hand with and supports high quality recycling. Civil society in western countries show resistance being doubtful on environmental impact the WTE plants have.

Civil society in Albania have been opposing WtE treatment since government proposed the first facility in country. Activists of civil society consider this process leaded by government as suspicions and corruptive and define the 3 facilities in Albania as a big risk to citizen's health and as huge polluters for the environment. Even though not any examination or evidence is proofed civil society claim that the people living next to it are complaining from bad odor. They do claim also that WtE will close the door for good to recycling process in Albania.

While in Albania civil society and environmentalists argue that incineration is a serious risk to health of citizens, they have not been identified to "fight" against disposal without standards in country. Lack of government's transparency at any level,

[1] https://hashtag.al/index.php/2016/11/21/banoret-e-mbrostarit-vazhdojne-rezistencen-nuk-i-zeme-bese-qeverise/
[2] https://www.reporter.al/banoret-e-fierit-protestojne-kunder-impiantit-te-djegies-se-plehrave/
[3] https://www.reporter.al/divjaka-kunder-divjakes-banoret-brohorasin-projektin-betonizues-te-behgjet-pacollit/
[4] https://environment.yale.edu/publication-series/documents/downloads/a-g/gemmill.pdf
[5] CEWEP | Confederation of European Waste-to-Energy Plants www.cewep.eu/

the secrecy and hidden agenda is suggested as a key driver to civil society to strongly believe that the WTE plants in Albania are out of EU standards. "AKIP" and "NismaThurrje" as the most well-known movements against WtE plants are "opposed" by several media outlets. Media representatives are doubtful that this activism of CSO's is covering a hidden agenda and maybe they are financed by unknown source. Citizens in Albania show to be dubious about the civil society activity. On 88% of Q1 in this research didn't identified themselves represented by civil society causes. 95% of them responded that they never have been involved directly or indirectly in any civil society cause.

Even though is a 2 year ongoing protests in Fieri against WtE plant, Environmental Justice Atlas is not offering any conflict related to incineration in Albania, while there are identified several other past or ongoing environmental conflicts in country. (İnaltekin 2016) suggest that in Albania the movements have grown simultaneously, as civil society grew, while he suggest that a stable environmental movement still is not established in country. Civil society in Albania attributes the raisin sensitivity towards environmental issues to the rise of civil society (after 2000) (3 out 3, Respondents of Q6), while they claim that academics silence is not good for the society.

One of the most active eco NGOs in Albania "Let's Do it Albania" states (December 2015)[1] "local authorities are now more open to collaboration and have started to pay more attention to protection of the environment and waste management. But more needs to be done".

Media: the key ally of citizens

In 2012, in Albania was reported the biggest movement ever in country. About 60.000 citizens signed proposing a referendum to oppose the law allowing the waste import. Media was identified to be the key role player that through raising awareness of the case made possible 60.000 thousand signatures.

Recently media in Albania have put permanent focus to poor waste management in the country. The reporting many times is mapped as a contradictory; but yet in this research it is identified that that talking about waste helps raising awareness of public. J. BOssio et al. (2012) investigated access to public participation and transparency suggest that working with the media is also of utmost importance. Access to government information provides important opportunities for investigative journalism, and for reporting and monitoring the management of public resources. Bossio argues that the state, civil society organizations and academia should focus their efforts on strengthening the capacities for research and analysis of data by journalists. Media in country begun its extended increasing attention on waste management, due to fact that were evident and visible impacts of environmental degradation.

In this study is mapped that media reports in the headlines to terminologies "Waste" and "Garbage/Trash". On articles/chronicles which report a story /statements of government or donors, the term waste is generally used. While on the reporting of the protest or resistance of citizens, and investigations done by media outlets 'trash" and "garbage" are the most used terms. As IREX (2017) suggest in Albania most of journalist do not go beyond press announcements of public sector entities, many times they even do not write their name on the article or chronicle. News people in country are over loaded with information and not that much time to edit news, to confront statements and positioning of government or other stakeholder in different period for the same issue. All respondents of Q7 recognize that this leads to missing accuracy and is a big risk to lose the public trust. For the Fieri WtE plant case, Panorama, the biggest newspaper in country in its web portal reports in the headline "The protests against landfill in Mbrostar…" [2]

10 out of 10 respondents of Q7 acknowledge that they have poor information and knowhow to waste management hierarchy as a whole process due to lack of proper communication from government. They identify as a concern that 2 of the main stakeholders: the academics and the WTE plants companies reject to be involved in the media discussions on WTE treatment. On the other hand they claim that government refuses to give full access on information, claiming that confidentiality in the PPP agreements have strong provision. Media claim that academics "frighten" their position, and they do not will to oppose the government policies. The lack of experts in the sector of waste-to-energy brings also an enormous gap. No matter any hidden agenda of the civil society in Albania media see as priority to give enough space and make civil society's voice clear. The 3 companies on WtE plants in Albania are reported to refuse the direct contact and communication

[1] https://www.letsdoitworld.org/2015/12/albania-creating-social-and-cultural-change-through-massive-waste-clean-ups/
[2] http://www.panorama.com.al/protestat-kunder-landfillit-ne-mbrostar-ndalohet-nje-person-dy-ne-kerkim/

with media representatives. They prefer to to use better the electronic or direct mail communication. 100% of the respondents of Q1, trust more media than civil society, academics and government.

Media as a key ally to social movements in country claim that citizens need to heard and is government duty to inform and engage them properly.

Academics and researchers (non)participation

The relationship between science and policy is an old one, and often closely related to the world of culture, which in turn serves as a neutral element capable of reinforcing coalition.

Higgings (2016) suggests that scientists and philosophers should be shocked by the idea of post truth, and they should speak up when scientific findings are ignored by those in power or treated as mere matters of faith. While in waste management sector occasionally was identified any academics or scientist on waste management or environmental issues (January 2017- March 2018. Differently on what researchers suggest academics in Albania do not involve on public for environmental causes. Maybe one of few academics in country (Associate Professor Sazan Guri) who involves actively in media for environmental issues, represent himself as an environmental activists and he has an immense active role in the environmental movements. (85% of the respondents of Q1 have no knowledge that Sazan Guri, is an experienced of Assoc. Prof Lecturer)

"The academics in Albania do not want to go out their frames, they tend "to sleep" better than inform public what science suggest on what is right and what is wrong, what is safe and what is harmful" - a well-known investigative journalist responded for this study. Academics on other environmental cases are confronted with civil society claiming on a hidden agenda, serving to entities who involves them in research or projects. Yet the academics acknowledge that WtE is a better option than disposal but they show skepticism if this will "put in sleep" the government not focus on a sustainable waste management having focus the 3R process.

"In my whole 20 years of experience on waste management, based on different studies and Ph.D. thesis done for this purpose from a colleague of mine, the technology of landfilling with recycling result a lower cost process and more acceptable for the actual conditions of our country and the psychology of the citizens" – states Sazan Guri, Associated Professor, University[1]. Scientist and academics in waste management are less involved in WtE considerations in Albania by government at all levels. They do evaluate incineration as not a favorable option in Albania due to cost benefit analyses. They suggest during public consultations or hearings the government at all levels should target carefully and correctly the interest groups. EU-28 states through Circular Package economy aim to promote the economic instruments to discourage landfilling, while in Albania academics propose landfilling with recycling as a best option for country at this stage (Sazan Guri, 2017).

IV. Yellow waste acceptance; communication perspective as transparent and proactive approach

Workd Bank (2012) reports that most low- and middle-income countries, the reliability of solid waste data is further compromised, therefore Albania should focus and find proper tools to generate real statistics. Europe Commission (2017) on their communication ensure that the recovery of energy from waste in the EU supports the objectives of the circular economy action plan and is firmly guided by the EU waste hierarchy. The EU-28 countries have defined how the role of waste-to-energy processes can be optimized to play a part in meeting the objectives set out, while in Albania no such defining is set yet. Waste-to-Energy is widely accepted as renewable energy source. Most countries with very high recycling rates – such as Austria, Belgium, Germany and the Netherlands, also have high rates of Waste-to-Energy as a sink for pollutants and thereby have reduced landfill to almost zero. Szeman and Diamanti (2017) suggest that the social, political, economic and cultural context that energy systems are made to serve will largely determine the degree to which distributed renewable energy systems can be made democratic. Burke, J.C. Stephens *(2018*) put focus on the democratic potential of the entirety of renewable energy systems over time also requires a careful appraisal. The studies suggest that the energy democracy movement represents a contemporary expression of ongoing struggles for social and environmental justice through engagement with technological systems. (M.J. Burke, J.C. Stephens *(2018*) argue that as a democratic development model, renewable energy transitions require an accelerated reduction in the use of fossil fuels for social,

[1] http://www.standard.al/2017/09/12/flet-ambientalisti-sazan-guri-teknologjia-me-landfill-me-riciklim-ka-kosto-me-te-ulet-dhe-rreziqe-te-medha

ecological and political reasons, but do not necessarily entail an immediate ramping of renewable energy infrastructures. Becidan et al. (2015) in their research find that Norwegian government led to a significant increase in the building of new WTE plants with energy recovery and many studies show that Norwegian society evaluate positively the proposed the unique advantages offered by WTE.

Climate protection and commitments to 2030 Agenda are recognized as heavy costs to Albanian government. Efficient WtE reduce both methane emissions (a potent greenhouse gas that has 25 times greater impact to climate than carbon dioxide CO_2) from landfilling and CO_2emissions that would have been produced if the amount of energy was generated in conventional power plants, impacting so directly to reduce climate change. The Intergovernmental Panel on Climate Change (IPCC) . Nations report that Waste-to-energy facilities are economically sound investments that provide multiple financial and environmental benefits to the communities that utilize them. Today, the majority of the nation's waste-to energy facilities are owned by local governments and that have invested in this critical municipal infrastructure to achieve long-term solid waste management solutions. These facilities produce clean, renewable energy while reducing waste volume by 90 %, making them a good option for communities seeking the most advanced technology to manage their waste.

As shown in this study, when properly managed, waste-to-energy facilities offer a multitude of benefits to the communities that utilize them. They generate revenue through the sale of electricity, tipping fees, and profits from the sale of recovered metals, which allows for the repayment of their municipal bonds, as well as financing of other important aspects of MSW management, such as extensive recycling programs. The economic success of waste-to-energy for several decades throughout the country should provide confidence to other communities considering this economically and environmentally sound technology. Social impacts in developing countries improving the life standards of citizens and also with a direct impact on the local community life. New sources of jobs, potential to work in formal sector.

Poorly managed waste has an enormous impact on people's health, the environment, but also at the national economies. Improperly managed waste often results in higher costs for governments, contributes to climate change in the form of greenhouse-gas emissions, and has serious short- and long-term health impacts, due to that this study recommends to consider WTE as a potential good perspective for the country on the economic aspect.

The public and private sector together will need to assume much more responsibility for waste generation and disposal, specifically for product design and waste separation. Formalizing these responsibilities through well-structured PPPs can result in significant improvements in efficiency and quality of solid waste management, as developed economies have succeeded

The efficient use of limited fossil resources (e.g. crude oil, natural gas, coal) in WtE's is indispensable in any sustainable economy and waste management system. (Guri, 2016 pp 222) suggest the cost of the waste to energy are financial, social and environmental while the incomes are provided from incomes (selling of the energy), social-economical profitability (avoiding the social and environmental damages). As World Bank reports that in low and middle income countries even in Albania the method of calculation waste quantities is the ones arriving at disposal site, and is not taken in consideration the large fraction of recyclables taken away by the informal sector. The implementation of a proper methodology will help the economy to potentially make good profit and accurate forecasts from waste.

The yellow waste incineration from import mainly, have positioned Sweden as a leading country in WTE, where driving forces and business incentives for waste management. It looks like dirty business in the Albanian context, but articles suggest that in Sweden this is viewed as one of the country's great green achievements.

While waste-to-energy incinerators remain a controversial topic among environmentalists and a not desirable option from citizens in Albania, there's been little such debate in Sweden or Amsterdam (McCarthy 2014) they are facing incineration without any public opposition and with support from non-governmental organizations (NGOs).

Studies suggest that because incinerators have been in the focus of public attention for a long time, they are very well investigated facilities with little unknowns in developing countries.

However, similarly to other topics in energy, its economics that are at play. As far as it will be considered cheaper to truck waste to landfills, use fossil fuels for electricity and heating and enough land in the a country of 28.748 km2.

To make WtE profitable and wide accepted by general public, Albanian government at all levels should deliver a clear communication and proactive approach to stakeholders and with main focus the community. World Bank (2006)

recommends empowering citizens comes through publicly accessible data on pollution concentration levels enable citizens to take preventive measures to reduce their personal risk of exposure and pressure governments to enforce existing emission standards. When prices rise however, our trash may become energy treasure.

V: Conclusions, recommendations and contribute

M. Agovino et al. (2018) argue integrated waste management is only achieved through the joint action of citizens and institutions (central and local). J. BOssio et al. (2012) findings consider as the main challenge for citizen participation is to develop citizen-appropriate tools, not only to access, but to use public information effectively.

Researches argue that if key external stakeholders will work for same purpose citizen's resistance will be supported by a large number, this may change government standings and attitude. Most studies of social movement conclusions show that movements persuade the adoption of public policies directly, by engaging in lobbying and protest activities (Cress and Snow 2000; McCammon et al. 2001; Soule et al. 1999; Soule and Olzak 2004), and indirectly, by changing public opinion (Burstein 1999; Burstein and Linton 2002).

The findings of this study bring evidences that in developing countries (Albania) government at all levels, tend to limit access in information and participation of stakeholders on hot environmental issues. Communication strategies to raise awareness are part of legal and paper framework and do not go beyond them.

This study opposes scholars finding that argue that environmental organizations are key stakeholders that, under certain circumstances, may influence companies to improve their environmental performance (Hendry 2006; Lenox and Eesley 2009). In Albania, civil society proof a week bond with citizens and the COSs "reputation" and agenda it's vague for other participants on the cause.

This research was limited on the private business perspective as a stakeholders, as no clear evidence could be identified, considering that WTE treatment is yet in early stage (1 year only). The study bring evidences that oppose the suggestions (ISWA) that waste to energy should be considered better in mature economies or a better choice in high density districts; as in Albania disposal in landfilling is found as a more expensive process in long-term. In Albania there is the opportunity that WTE plants may solve the local government's lack of capacities to manage waste and lack of knowhow, through the private sector engagement; as a better costing option than disposal, though risking the recycling process.

A policy focus on environment in its fullest practicable sense would make more likely the consideration of all the major elements relevant to an environment-affecting decision (Caldwell 1963). This study suggest that the government or the hired consultants when deciding on long- term strategies should take in consideration all components and set logical possible objectives. This research that citizens in developing countries are willing to have a clean environment, but with poor knowledge on waste management and unwilling to pay the service

Kekezi and Kruja (2013) found that Albanian activists believe in change as core element of a social movement is the goal (Touraine 1981), same findings are proposed in this study that activists and citizens against WtE of Fieri believe that their resistance will bring a positive change.

Researches and articles worldwide show that even in most developed countries public perception in WTEs remain yet a challenge. They do suggest that WtE plants must be able to explain and defend their roles both in responsible waste management and energy production systems. In Albania companies have not exposed themselves in public, they have preferred better to work with the local community directly, considering other stakeholders as "tricky influencers".

At this stage Albanian government is recommended to take in consideration Wiedemann and Femers (1993) finding that the conflict management is possible approach for improving public participation. Stakeholders should consider the strengthening of media research and analysis to reach a better access and understanding in environmental issues as important

Albania is yet an emerging economy suffering from not implementing and little knowledge on waste management but in a near future the country should understand that a stronger role in material recycling and considering waste as a valuable source may well ensure its central place in a circular, renewable and sustainable economy.

The findings of this study on waste management opposes the findings of REC "Public Perception on Environment (September 2015) which give a positive correlation between citizen's level of education and their information and

acknowledgment of environmental matters. The conclusions of research tools with citizens, media representatives, and CSOs representatives found not positive correlation between their level of education and their information and acknowledgment of waste management matters.

M. Agovino et al. (2018) suggests that in particular, the latter spoke of "crisis of democracy"

in the waste management process that generated conflict between citizens and government. A thoroughly communication to reach at right levels public awareness and information dissemination should be developed and implemented properly, by government before decision making

Integrated waste management in a sustainable path in Albania will be only achieved through the joint action of citizens and institutions (central and local), and can't be a reality without a proper communication strategy and plan at national level

Albania is yet an emerging economy suffering from not implementing and little knowledge on waste management but in a near future the country should understand that a stronger role in material recycling and considering waste as a valuable source may well ensure its central place in a circular, renewable and sustainable economy.

Acknowledgements

I wish to extend my gratitude to any single participants in this study, for generously sharing strategies, papers, legal documents and especially their concerns, expertise and insights, and for making the time to participate in this project. The interviews and other data were analyzed with honesty and respect for privacy.

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