

**REGIONAL COOPERATION IN SOLID WASTE MANAGEMENT IN INDONESIA  
LESSONS LEARNED FROM BULGARIA AND SPAIN**

**CASE STUDIES:**

**PIYUNGAN LANDFILL AND BANGLI LANDFILL (INDONESIA)  
SILISTRA LANDFILL (BULGARIA) & URIBE-KOSTA PARTNERSHIPS (SPAIN)**

**MASTER THESIS**

A thesis submitted in partial fulfillment of the requirements for  
the Master Degree from University of Groningen and  
the Master Degree from Institut Teknologi Bandung

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**DOUBLE MASTER DEGREE PROGRAMME  
ENVIRONMENTAL AND INFRASTRUCTURE PLANNING  
FACULTY OF SPATIAL SCIENCE  
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AND  
URBAN AND REGIONAL PLANNING  
SCHOOL OF ARCHITECTURE, PLANNING AND  
POLICY DEVELOPMENT  
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2010**



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## **ABSTRACT**

### **REGIONAL COOPERATION IN SOLID WASTE MANAGEMENT IN INDONESIA LESSONS LEARNED FROM BULGARIA AND SPAIN**

Landfills as the end destination of solid waste always give troubles for human and environment. Meanwhile for Indonesia the existence of landfill is still needed to treat the solid waste. A Sanitary landfill system is recommended for operating landfill. But the local government has limited capacity both in finance, resource and knowledge to operate the solid waste management. The ideas of landfill regional cooperation came up as an answer for the local governments which have limited capacity to do sanitary landfill. This research tries to get some lessons learned from International case studies (Silistra landfill in Bulgaria and Uribe-Kosta Patnership in Spain) in implementing regional cooperation. This research also took two Indonesia case studies ; Piyungan landfill and Bangli landfill. To analyze the landfill regional cooperation, this research use 3 parameters; National Administrative System, The Legal Framework for the Regional Cooperation and The system upper level government in stimulating regional cooperation. The analyses of this study find that regional cooperation in solid waste management in Bulgaria and Spain has weaknesses and strengths. For example; no mutual trust among involved municipalities in Silistra regional cooperation in Bulgaria, the second tier of government in Spain (Autonomies communities) has strong position to control regional landfill cooperation. The assessments for Indonesia case studies explore some results: (1) Indonesia needs a regulation that supports the role of provincial government as a mediator in regional cooperation. (2) Indonesia has sufficient formal rules to establish and shape regional cooperation in solid waste management. (3) The involvement other public authorities in landfill regional cooperation is needed. (4) Regional cooperation in solid waste management still depends on incentive. Therefore the right approach for landfill regional cooperation in Indonesia is mixed between top down and bottom up approach.

Keywords: landfill regional cooperation, solid waste.

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## **PREFACE AND ACKNOWLEDGEMENT**

This thesis is conducting during February to August 2010 at Environmental and Infrastructure Planning Programme, the Faculty of Spatial Science, Rijkuniversiteit Groningen. The subject of this thesis is about Landfill Regional Cooperation. This research aim is to give recommendations for improvement of regional cooperation in landfill operations which fit in the Indonesia context.

Firstly, thank Allah SWT Almighty that I finally have done my thesis. Secondly, I am going to thank Dr. Femke Niekerk and Bapak Ir. Heru Purboyo H.P., DEA., Ph. D as my supervisors for their important advices, supervision, guidance, and support. Special thanks also to all my friends, especially group members of DD ITB-RUG 2008 for their time to share great moments in Bandung and Groningen. I wish also to express my love and gratitude to my mother, my father, my aunty, my brother and sisters for their consistent support and prayer. Finally I would like to say thank you for all my best friends in Ministry of Public Works for their spirit and prayer.

Groningen, August 2010

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## **Chapter I**

### **Introduction**

Regional cooperation has been chosen by some local governments as an option in providing efficient and effective public service (The Organization for Security and Co-operation in Europe, 2008). The reason is that the local government responsibility today becoming complicated and demanding. However the knowledge and resources are limited. Managing landfill as part of solid waste management is crucially important issue for protecting the environment and health of those living nearby. This chapter is started by elucidating how the dilemmas of solid waste management trigger regional cooperation in landfill realization. Then this chapter describes the problem statement, research objective, and research questions. Afterwards it is closed by explaining the research framework.

#### **1.1. Background of Research**

Solid waste is one of bigger visible environmental problem in urban areas in developing countries. Waste is the visible environmental problem because its presence disturbs amenity. The more increasing number of population in an area, the more increasing number of solid waste generation. Rapid growth and development of cities demand for the provision of facilities and adequate infrastructure solid waste management. Ngoc and Schnitzer (2008) stated there are several factors that contribute to the amount of solid waste such as increasing population, changing consumption patterns, economic development, changing income, urbanization and industrialization.

Ngoc and Schnitzer (2009) assumed that waste problems in developing countries from year to year are increasing. This situation can be described as follow (Ngoc and Schnitzer, 2009) ;

- Increasing of solid waste pile in every year

- Capacity of local government performance in managing solid waste in developing countries is still lower than in developed countries
- Lower priority in solid waste management problem cause limited local financial budget
- Most local governments have not a consistent master plan for managing solid waste
- Many final disposals still use open dumping system which leads to many environmental problems such as odor pollution, water pollution and smoke.

Bad management in solid waste has negative impacts to people and environment. Pile of solid waste attracts flies, rats, and other creatures. Solid waste also accelerates the deterioration of the environment for instance leachate polluting surface water, odor, and soil. These problems will cause diseases which lately decrease the quality of human health.

Solid waste problem in landfill is like a time bomb which can hit community. For example, there was a tragic incident on 8 September 2006<sup>1</sup> located in a small village in Bandung area, Leuwi Gajah. It caused injuries and the deaths of 143 people due to the collapse of a 50 meter high mountain of garbage waste. It proves that this is not solely the issue of final disposal system, but it proves the poor implementation of solid waste management. This problem is getting worse because land for Final Disposal has specific technical requirement which is not easy to find in urban area

In Indonesia, the planning system before 2004 was more centralized. However, after that government offers a different paradigm mentioned in Law No. 32 of 2004 in which local governments have a space to perform a variety of innovative public services. This condition has challenged the local government to be more innovative in managing solid waste management. However, many local governments so far are not ready in this consequence hence some public services are not optimal. To overcome the solid waste disposal problem the local governments have opportunities to arrange regional cooperation with their neighbor in providing a better regional landfill disposal. Less optimal management of landfills definitely burden its surrounding environment such as

the deterioration groundwater quality, odor pollution, and air pollution. With regional landfills the municipality or region can share the cost and the knowledge which burden the operation sanitary landfill.

## **1.2. Problem Statement**

The emergence of environmental pollution around the landfills happens because the landfills constructions do not meet the technical requirements in accordance with national standards. Besides the lack of capacity, bad operation and maintenance are major problems in solid waste management. In this decentralization era, restructuring local government task is a substantial matter that needs to be addressed. (through Law 32/2004). As well as in the management of solid waste management of Indonesia's municipalities particularly in landfill management, finding a new location for landfill area is crucial. Ascertain a new landfill has to refer to the standard of sanitary landfill technical requirements and city spatial planning. Simultaneously the facilities available at the landfill are limited and lack of environmental protection facilities (the buffer zone, sewerage and leachate treatment, gas ventilation and closure of the land) and landfill is accomplishing by open dumping's way. On the other hand the situation is more complicated due to none of ban of settlement building near by landfill. Landfill in beginning is settled away from the settlements, but from time to time it became surrounded by settlements. So when there is something wrong with landfill operation, the community quickly blamed the landfill. This problem forces NIMBY's factor coming up and resulting the opposing the existence of a new landfills.

In Indonesia especially under decentralization context, conducting regional landfill cooperation faces many obstacles for instance; rigidity of regional autonomy, the insufficient management of the system and the lack of coordination between agencies and related local governments. (Kompas, 2010)

In implementing a regional landfill, the roles of each stakeholder should be clear, the regulation should support and the coordination forum among involved

inter municipalities and other actors should be run well (Ministry of Public Works, 2006)

In developing solid waste management, it needs comprehensive planning where as the system must both economically and technologically feasible (National Research Council, 1970). For that reason the concept of regional landfills is recommended as one of the solutions that can accommodate solid waste from the cities nearby (Dorasman, 2005). Using this concept can lead to the utilizing of land, equipment and other related elements more efficient and effective.

Ideas for regional landfills in Indonesia just came up around three years ago. The implementation of regional landfills in several municipalities needs more improvement. Therefore it is a need for studying the existence of landfill regional cooperation in International practices and Indonesia in order to get some recommendation for improving regional landfill cooperation.

### **1.3. Research Objective**

The main purpose of this research is to give recommendations for improvement of regional cooperation in landfill operations which fit in the Indonesia context. To get this main purpose, first the research will examine the current implementation of Silistra regional landfill and Uribe-Kosta Partnerships to get some lessons learned. Second this research will identify the existing regional cooperation in Indonesia (Piyungan and Bangli). Finally this research will identify possible approaches and recommendations for improving cooperation in regional landfill in Indonesia.

This research chose Bulgaria case study and Spain case study as lessons learned from inter-municipal cooperation implementation. Bulgaria is chosen as case study because Bulgaria has been faced government transformation that leads to decentralized in 1991. Similar situation in Bulgaria, Indonesia has faced decentralization since 1999. Therefore it is could be useful to learn how Bulgaria's inter-municipal cooperation implementation under decentralization condition.

Spain has experienced the power of the monarchy government under the Franco regime long enough. Spain's joining in the European Union (EU) in 1986 indirectly slowly changes the pattern of distribution of power, especially in the provision of public infrastructure. So it is interesting to observe Spain inter-municipal cooperation implementation where as the second tier of has more power than condition in Franco regime from 1936 up to 1975.

#### **1.4. Research Question**

In order to fulfill the objective of this research, the research will be based on several research questions as follows;

1. How is the implementation of regional solid waste cooperation in Bulgaria and Spain International Practice?
2. How is the current functions of regional cooperation landfill in Bangli and Piyungan ?
  - How does national administrative system support the regional cooperation?
  - What are strengths and weakness of legal framework in accommodating regional cooperation?
  - How the system upper level governments support the regional cooperation?

These sub research questions are based on literature (Hulst and Van Montfort, 2007) which explores inter-municipal cooperation in European Union.

3. Regarding Indonesia condition, what can be learned about Regional cooperation from international cases taking implementation barrier into account?

Following the first question, and then I will find what missing elements in regional cooperation in Piyungan and Bangli and compare it with International case which latter can be input to formulate recommendation for Indonesia context.

## 1.5. Methodology

The approach of this study is using empirical analytical method based on literature review. Most of analysis in this research is descriptive and qualitative analysis. The research uses a multi level case study. Stake (2003) stated that *The multi-case study is a special effort to examine something having lots of cases, parts or members.*

To answer the research question this research analyze based on secondary data.

Research Question 1 :

How is the implementation of regional solid waste management in Bulgaria and Spain International Practice?

To answer the second question, this study takes the data based on international articles; Local Government in Bugaria, National Waste Management Programe in Bulgaria, The case of Silistra Landfill, Intergovernmental Partnerships at The Local Level In Spain, Local Government in Spain, Inter-Municipal Cooperation In Spain.

Research Question 2 :

How functions are the current regional cooperation landfill in Bangli and Piyungan

- How does national administrative system support the regional cooperation?
- What are strengths and weakness of legal framework in accommodating regional cooperation?
- How the system upper level governments support the regional cooperation?

To answer the first question, this study figure out the tiers of government, the sharing responsibilities among central government, provincial government and municipalities / district government. It can be known from several regulations ; Law 22/1999, Law 32/2004, the legal framework of Piyungan landfill regional and the other related articles. The other support data also took from

Kartamantul Joint Secretariat web site, the daily newspaper in Jogjakarta and Bali, Ministry of Public Works report about progress of landfill in Indonesia.

Research Question 3 :

Regarding Indonesia condition, what can be learned about Regional cooperation from international cases taking implementation barrier into account?

This answer will be taken by look at by description of regional cooperation from Bulgaria and Spain that can be possibilities to be applied in Indonesia case.

After analyze the case studies of Bulgaria, Spain and Indonesia, this research will give conclusion to summary the answer of research question and give recommendation which also can reflect the chosen theory and case study selection. The overall framework of study can be seen in the following figure.

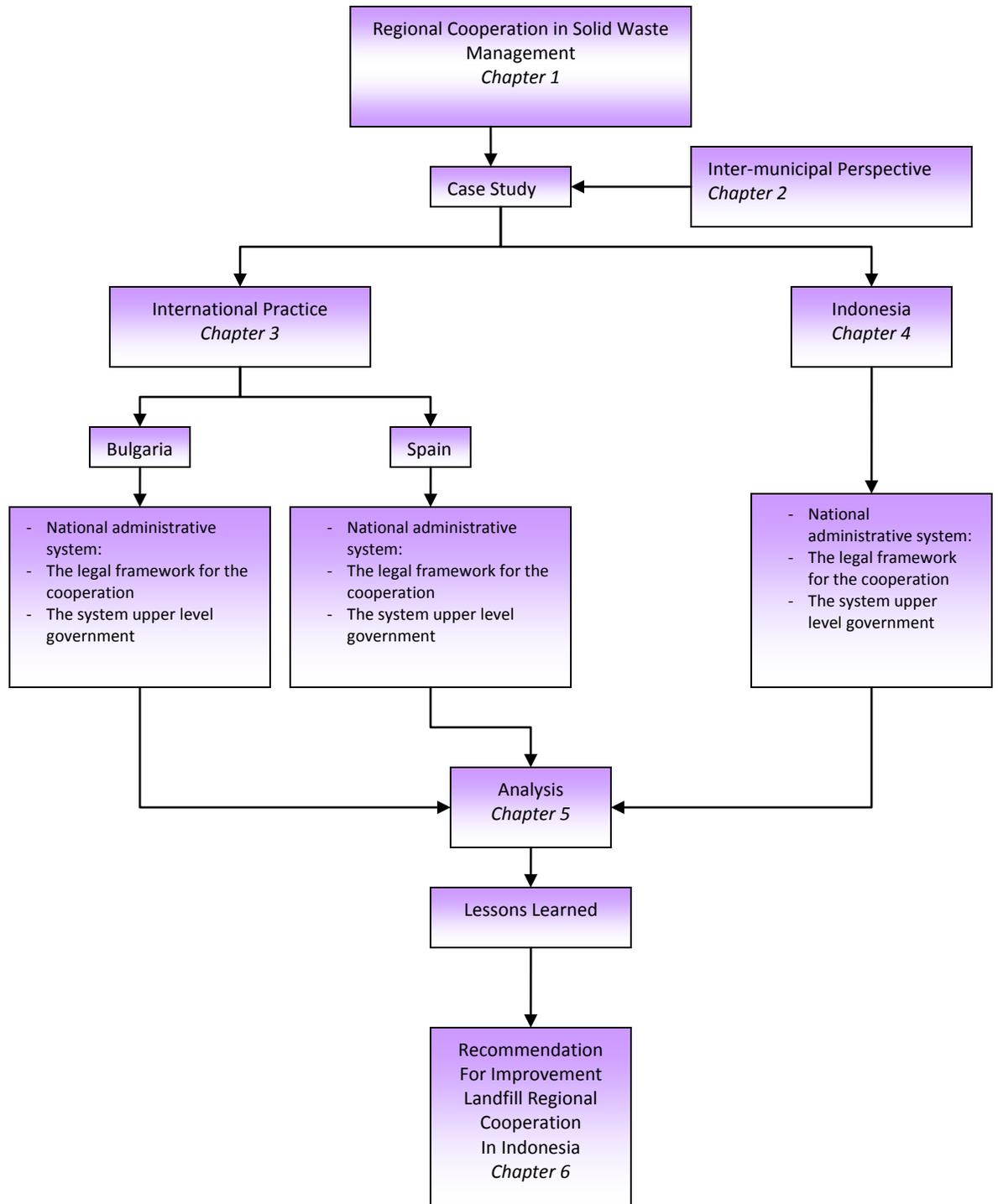


Figure 1 Research Framework

## 1.6. Research Structure

Before explain the research structure, first this research will describe briefly the conceptual framework in this research. According to Hulst and Van Montfort (2007) there are 3 elements examining the implementation of regional cooperation; National administrative system, the legal framework for the cooperation and the system upper level governments in stimulating regional cooperation. From this theory, this research tries to elaborate it with solid waste management perspective and examine the implementation of regional cooperation of landfill in Indonesia and International Planning Practice. The diagram of conceptual framework is illustrated in Figure2. This conceptual framework will be discussed more in chapter II.

The structure of this research will be elaborated in six chapters. The diagram of research framework describing the aspects which are contained in these chapters is illustrated in Figure 2. The content of each chapter can be described as follows:

### Chapter 1 : Introduction

This chapter encompasses of background, problem statement, research objectives, research questions, research framework and conceptual framework. It will illustrate the background of the study as an impetus and reason beyond conducting research for regional landfill cooperation.

### Chapter 2: Literature Review

First, this chapter will discuss theoretical concepts of solid waste management; definition, elements and stage activities. Second this chapter explains about regional landfill. Third, this chapter describes theory about Government stakeholder related regional landfill. Fourth, this chapter will describe about forms of Regional Cooperation. The last sections of this chapter will enlighten the conceptual framework of this research.

### Chapter 3: International Planning Practice

This chapter will describe implementation of international planning practice in regional cooperation in solid waste management. The case study took from Bulgaria and Spain.

### Chapter 4: Piyungan Regional Landfill and Bangli Regional landfill

This chapter will discuss about the circumstance in regional landfill cooperation in Indonesia. Piyungan Landfill is a pilot project of landfill regional cooperation in west Indonesia. Bangli regional cooperation is planned as example of landfill regional cooperation in the middle of Indonesia. Similar discussion structure of International practice is applied to discuss regional cooperation in Indonesia context.

Chapter 5: Comparison analysis regional cooperation of solid waste implementation among International case study and Indonesia case studies. Through this comparison analysis, similarities and differences of current practice and effort are revealed which further can be as lessons learn for Indonesia.

### Chapter 6: Conclusions and Recommendations

The final chapter consists of conclusion, recommendations and reflection on the research. This chapter will provide some recommendations for Indonesia toward regional landfill cooperation implementation. These recommendations are made as adjustment from International planning practice and also consider Indonesian context.

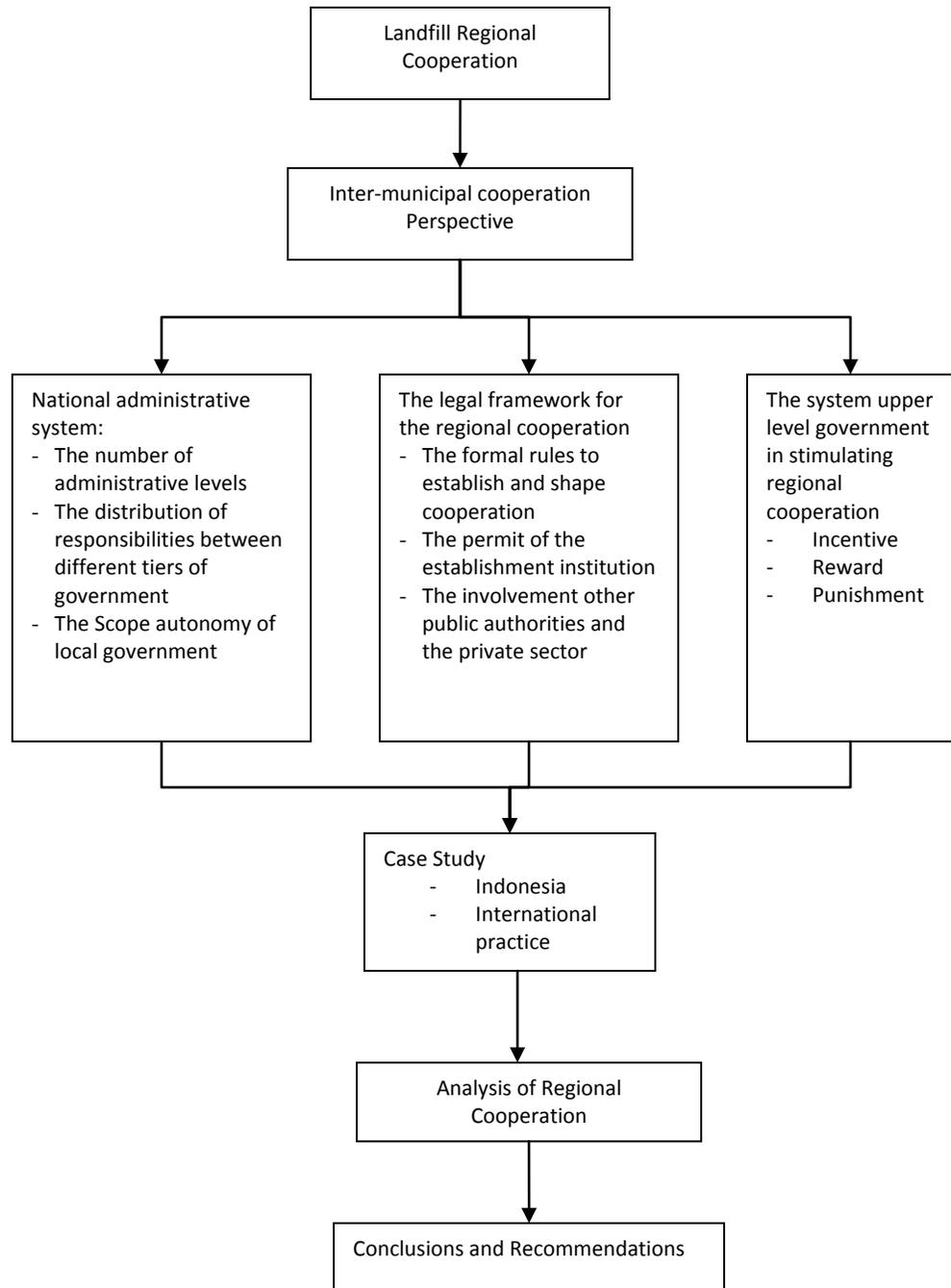


Figure 2 Conceptual Framework

## **Chapter II**

### **Theoretical Review**

This chapter aims to explain about perception of Solid Waste Management and Regional Cooperation. In the beginning of the chapter, it will explore the definitions in solid waste management, the stage of activities in solid waste management context and the approach of integrated solid waste management which was developed out of the conventional paradigm. Furthermore, the next section will examine about the Regional Landfill, and Government stakeholders. This chapter will be ended with enlightening the conceptual framework.

#### **2.1. Solid Waste Management**

Solid waste is one of bigger problems in urban areas. The growing population caused by the high flow of urbanization to urban areas has caused the high volume of solid waste that must be managed every day. In order to analyze solid waste management, this study will be started to overview from *what is waste?* According to Petts and Eduljee (1994, p7) waste is “ (a) any substance which constitutes a scrap material or other unwanted surplus substances arising from the application of any process and (b) any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled. Any thing which is discarded or otherwise dealt with as if it were waste shall be presumed to be waste unless the contrary is proved.” Based on Indonesia’s Law No 18, 2008 Waste is a discarded product or material due to remain human activity. So waste based on two points of view has a slight different meaning. Even waste is a discarded product or material which the owner wants to dump, but it doesn’t mean every waste having no value. Waste such as papers, bottles, boxes usually have value if those of it are reused or through other 3R process.

*What is municipal solid waste (MSW)?* Yamamoto (2008) described that MSWM as compilation of both domestic refuses and institutional site area including hospitals market waste, tourism area, school yard waste, street sweeping as well

as other urban function. Based on UNEP, Municipal solid waste (MSW) is *a term usually applied to a heterogeneous collection of wastes produced in urban areas, the nature of which varies from region to region*. Urban wastes can be subdivided into two major components organic and inorganic. What is municipal solid waste management (MSWM), according to Schübeler et al(1996)

MSWM consist of the functions of collection, transfer, treatment, recycling, resource recovery and disposal of municipal solid waste.

Solid waste is broadly defined comprising non-hazardous industrial, commercial and domestic refuse including household organic trash, street sweepings, hospital and institutional garbage, and construction wastes; generally sludge and human waste are regarded as a liquid waste problem outside the scope of MSW (Schübeler, et. al., 1996))

In UNEP (Schubeler, et.al, 1996); the waste management system is one of the infrastructure components in sustainable community. Therefore, solid waste will be managed by technology and methods that support sustainable communities and environments.

Some elements such as waste generation, waste composition, waste minimization, waste collection and transportation, waste treatment and waste disposal become factors that usually determine the operation in solid waste management. (Tchobanoglous,G & Keith,F, 2002). Diverse stages of activities in solid waste management are divided in three steps; recycling, treatment and disposal.

Where does waste generation come from? Waste generation type of solid waste which came from? Residential waste (household waste, garden and yard waste, bulky waste), Commercial/trade (office and institutional waste), Industrial / manufacturing waste and construction and demolition waste. According to Christopoulos (2005) the conditions that directly increase waste generation are increasing population, higher consumption and elevating production technology for goods and services (unsustainable patterns). Waste generation deals with the source of solid waste and the waste being generated, sorted and collected in-house. Waste generators related with waste composition. From knowing the waste generators source could help to determine the waste composition. Beside of that

waste composition based on Ngoc and Schnitzer (2008) is influenced by external factors, such as geographical location, the population's standard of living, energy, source, and weather. By recognizing the waste composition, the municipality has basic information in deciding the characterizing a city waste management.

Waste minimization is a component in solid waste management that means to reduce the amount of waste that must be delivered to disposal through reduction waste at source and resource efficiency (Phillips et al, 1998). The implementations namely 3R are reduction the generating waste, reusing the element of material than can still use, recycling the material of waste to be used for another purposed. Separation as the first step in waste minimization will make easy to do the recycling. Recycling activity will reduce the volume of solids waste which latter minimize the cost treatment and disposal. The cost is influenced by the amount of soil for covering, the operation of the hard equipment, the electricity for leacheate treatment basin.

Diaz et al (2005) stated that waste collection can be indicator for appraise the successful or not the solid waste management in a city. Waste collection which encompasses vehicles, containers and personal must fit with the local condition. The vehicles to accommodate a waste collection varying in design can be influenced by the operation area. Diaz discuss an example where as vehicle operating in low density urban areas with nice road condition do not act as the same level of service as vehicles operated high density area with poor quality roads. In developing countries is not common using road sweepers because the access of dwellings settlement condition. Others subjects that related with waste collection are: types of waste collection services (unseparated waste or separated waste), the collection routes, the management of collection systems, the collection system economics (estimation the cost of providing collection service, storage containers location). Waste transportation is delivering the waste from where the collection was completed and until unloading of the waste to temporary final disposal or to landfill as final disposal. Transportation of solid waste management is commonly carried out by the vehicles like tractors and trucks.

Waste treatment and landfill is a final destination of solid waste journey. Waste treatment embrace process of mechanical, thermal or biological treatment or combinations hereof. The treatment processes consist of mechanical treatment involving size reduction, sorting and compaction, thermal treatment involving incineration and pyrolysis/ gasification and biological treatment involving composting and biogasification (anaerobic digestion). Landfill becomes regular options in treating and disposing the waste since long time ago. Even so, the practicing of landfill has developed. Previously it was started as open landfill or open dumps, which was operated by covering the waste with soil in certain times without considering the impact to the environment (water and soil), aesthetic deterioration, and declination of human health. The cheapest cost and common method make open dumps were implemented to treat the solid waste apply (Ngoc and Schnitzer, 2008) .Then it gradually changes into control landfill which more betterment than open dumps. And now, the best landfill operation is more known as sanitary landfill. Sanitary landfill prevents pollution by applying a leachate management system, geo-membrane liner system at the bottom of the landfill, a clay-lined layer, a gaseous migration system, perimeter control. Other waste treatments are incinerator and composting. For most developing country, incinerator is avoided because need a high cost for start-up and operating capital requirements (Ngoc and Schnitzer, 2008). Composting, an aerobic biological process in which the bacteria play main role to decay the organic fraction of the waste into product compost, is conducted in some landfill. Compost contains a part of the nitrogen and most of the other chemical nutrients that were present in the original waste which is useful to fertilize the soil layer in agricultural land. Bruen et.al. (1985) analyzed that only a proportion of municipal solid waste can be composted. They state d that some 300-500 kg of compost can be produced from 1 tonne of waste. 150-250 kg are lost in evaporation and conversion process. The load of landfill might be declined by implementing Integrated Sustainable Waste Management. Based on UNEP (Schubeler et.al,1996) “*Integrated waste management is a frame of reference for designing and implementing new waste management systems and for analysing and optimising existing systems*”.

Integrated Sustainable Waste Management (ISWM) refers to a waste management system that best suits the society, economy and environment in a given location, a city in most cases (van de Kludert, 2000). ISWM recognises three important dimensions in waste management: (1) stakeholders, (2) waste system elements and (3) sustainability aspects. Three key physical elements that all need to be addressed for ISWM system to work well and to work sustainable over the long term:

1. Public health : maintaining health conditions in cities, particularly through a good waste collection service
2. Environment: protection of the environment throughout the waste chain, especially during treatment and disposal, and.
3. Resource management: “closing the loop” by returning both materials and nutrients to beneficial use, through preventing waste and striving for high rates of organics recovery, reuse and recycling.

Related with this research objective, waste treatment and landfill are the end parts of solid waste management system. To know how good the landfill condition after regional cooperation established physical condition of landfill must be analyzed first. Due to the limitation data about the physical condition of landfill, this research emphasize more on the performance of regional landfill cooperation in Indonesia with some lessons learned from Bulgaria and Spain case studies.

## **2.2. Regional Cooperation**

Regional cooperation namely Regionalism is the hot-topic of debate for those interest groups, state and local governments, and citizen groups that are engaged in the growth management debate. In Indonesia, Keban (2009) stated that inter-municipal or regional cooperation is necessary to solve transboundary problems related an administrative area by exploring the districts or municipalities potential based on mutual interest.

Kindokoro (2004) sketch out three factors motivating municipal cooperation. First, rapidly urban Growth, regarding demand of better quality of life the city inhabitants and lack of capacity the local authorities urges to arrange partnership with other municipal to increase technical know-how and skills transfer. Second, globalization, the local authority is alerted with the quick up-date technologies and knowledge. Cooperation with other municipal will give benefit in sharing vital information and experiences. Third, decentralization and new forms of intra-governmental relationships give a room for cities to arrange particular cooperation with other cities in conducive environment.

Keban (2009) summarized inter-government cooperation into three types. First, *Intergovernmental service contract*, this cooperation is carried out if a local municipality pays other municipality to perform certain types of services, such as prisons, solid waste management, animal / livestock control, assessment of tax. Second, *joint service agreement*, This cooperation is arranged to perform the function of planning, budgeting and the provision of certain services to local communities for example building regional library and setting communication between police and firefighters. Third, *intergovernmental service transfer*, a cooperation in which a permanent transfer of the responsibility from one municipality to others for several sector public services such as public works, infrastructure facilities, health, good government and public finances.

UNDP, 2000 enlighten the basic fundament to successful city to city cooperation.

1. Commitment of parties, focusing in both time and financial resources.
2. Community participation in the project, linking the local authority and the community.
3. Understanding, representing agreed goals and expectations
4. Reciprocity, expressing showing in mutual trust and respect among parties,
5. Results through real examples, depict relation between the tangible results and resource of city.

*What makes idea of regional solid waste landfill came up?* The ideas usually trigger by change in solid waste management regulation or to get more efficient in solid waste management resources. In Armbrister review (2001) famous United

State's regional solid waste management case especially in Southwest Virginia happen because the new formulated Environment Protection Agency (EPA) standard. This regulation forced the county to improve the landfill condition in two years. Due to high cost operation and unprepared technology 8 counties closed their landfill and transport their waste to other region or to private landfill ownership. Only Carroll and Grayson, the rest counties, did regional approach with using one landfill in Carroll County Regional Landfill. The writer assumes that regional solid waste management is the concept for managing solid waste management between 2 regions/provinces or more with managing one landfill.

Related with implementation of sanitary landfill, the issue of regional solid waste landfill is applied now days in Indonesia. *Why regional solid waste landfill plan is needed?* As a statement in the previous explanation in the Introduction, in Indonesia context, a regional solid waste landfill management is necessary to respond to one of problems of lack capacity of local governments (resource and Financial) in the provision of sanitary landfill which further will support solid waste management improvement.

This statement is supported by Oregon metro web site explaining the plan of regional solid waste landfill, *first, serves as a regional framework for the coordination of solid waste practices. Second, provides the region with a program of solid waste system improvements. Third, establishes regional solid waste goals and objectives including an overall waste reduction goal and a plan to monitor progress toward the goals. Fourth, satisfies state law requiring the development of a waste reduction plan for the metropolitan area.* Solid waste is responsibility of local government; therefore fewer resources should be not excuse, because there is always a room for enhancement.

Inter-municipal cooperation usually is resulted by pressure condition of local government. Hulst and Van Montfort (2007, p3) explained several factors push this situation. First, the requirements of technological and economic efficiency are not compatible with the scale of public service delivery. Second, increasing of number population in every year and population mobility or urbanization must balance with the city public service provision. Third, increasing role of market

and privatization in public service will reduce local government intervention. It is might concern with the fulfillment of the poor need. In Hulst et al (2009) recognized that there are variations in institutional arrangements. Based on composition, there is an only local government or a mix of municipalities and other public and or private partners. Based on the scope there is a cooperation includes one service or a range of services scope. Based on degree of organizational integration, there is a public service that conducts by a separate joint organization or it is organized through agreements.

Regional cooperation vary in form and shape for “*instance mutual consultation to joint operation of inter-municipal agencies, involving small and large numbers of municipalities and including different territorial scale, and involving private sector organizations and upper level government*” (Hulst and Van Montfort, 2007). Inter-municipal cooperation gives benefit in efficient, efficacy and modern public service delivery.

To study how the scheme of regional working are studying characteristic of the national administrative system and the position of local government in it, studying the legal framework for the cooperation and studying the system upper level government. Hulst and Van Montfort (2007, p12) stated that several aspects in observing national administrative system are; the number tiers of administrative level, the allotment of responsibilities and roles between the different tiers of government , the scope and autonomy of local government and the number and size of the municipalities. For identifying the specific cooperation legal framework, some factor must be observed such as; the formal rules in establishing and shaping cooperation, the permit of the establishment of mixed institutions, the involvement other public authorities and the private sector, the possibility to transfer local decision-making powers to joint authorities and to give joint authorities with the power to levy taxes cooperation.

### **2.3. Government Stakeholder Related Regional Landfill**

In Indonesia, the tiers for solid waste management are divided in three. First in National level, the Ministry of Public Works is responsible for assisting and releases some general guidance for solid waste handling operation and the Ministry of Environment is responsible for producing Act that related with solid waste management. Second in Provincial level there are department of public works and department of environment which in charge in assisting local level. In local level as operator solid waste management mostly do by city Cleanliness and Landscaping department. In fact the City Cleanliness and Landscaping department also act as regulator, and supervisor. The overlap these functions causes the waste management becomes ineffective. The regulator actor is supposed to measure performance of waste management and applies sanctions. This role can not be done because the operator actor is none other than itself. Consequently it evokes the difficulty in appraising the public service performance thus service tends to decline.

It is important to make a clear separation of roles between regulators, supervisors and operators (Ministry of Public Works, 2007). If there is no separation among the three elements, it will be difficult to objectively monitor the quality of public service. In order to perform well solid waste regional landfill it necessarily to have institution that can implement the above separation, and can conduct cooperation among City Cleanliness and Landscaping Departments as local government with provincial governments to manage regional landfill.

Who are involved in Regional MSWM? Djajawinata (2004) explained that there are potential stakeholders can be effectively involves in regional MSWM such as:

1. National Government
2. Local Government agencies, expertise in creating regulatory product.
3. Industrial sectors, expertise in assisting government in operational/ technical support or conduct primary survey towards possible negative consequences
4. Producers of waste technologies, provide technological innovation for MSWM

5. Trade association, involve in accelerating re-cycling product within market arenas.
6. Funding institution, for financial support
7. Academics, provides adequate theoretical overview in regional SWMW
8. Non Governmental Organizations (NGO),
9. Community Based Organizations

In order to perform well regional solid waste disposal institution there are five considerations; (1) Regulation, (2) Resources /administrative aspects, (3) financing aspects, (4) involving of private and community, and (5) technical aspects of operational/technology.

Regulation can be said that written rule that bind a group of people in order to reach a goal. Regulation in regional landfill management will have a legal basis and legal certainty, so if there are problems with the legal dispute would be easy to solve. Resources aspects are composed of human resources, facility and service mechanism. Financing aspect is how to finance the regional landfill operation and seek opportunity finding other source beyond of government sources. Involving of private and community will reduce the burden task of local government and gives advantages because the private and community usually have more innovation and local wisdom. Technical aspect of operation should be fulfilled to guarantee the safety and sustainability the landfill.

#### **2.4. Forms of Regional Cooperation**

Based SWANA (The Solid Waste Association of North America, 1996), there are five forms in implementing regional cooperation:

- Informal Agreements: local government cooperates with other local government in implementing certain activities in solid waste management without informal agreement.
- Joint Power Agreements: It is a formal cooperation by signing an agreement among involved government to build joint power group. The agreement guarantees certain authority to the joint power group.

- Special Purpose Districts: this cooperation tries to accommodate particular issue. This cooperation has a legal basis but does not override local government autonomy.
- Contractual Agreements: this cooperation lead the local government to use other local government solid waste management facilities, for instance using other region landfill.
- Authorities Regional Districts : based on Swana Authorities Regional Districts is *“a process usually defined in a state statute, local governments, or portions of local governments, can form a district for solid waste management. A district is a separate political subdivision with many of the same powers and authorities that a local government unit has. The authority can be either a coordinating or financing structure, the broker of private services or the actual provider of the services, or a combination of both”*.

Related with this research, the form of regional cooperation in these study cases refer in these three approaches. Regional cooperation also might depend on the demands of municipal solid waste management in that area and also must refer to the existing regulation.

## **2.5 Conceptual Framework**

The research process consists of four main activities, which are data collection, literature review and analysis. Most data used in this research are secondary data. They are obtained from many sources for instance books, journals/articles, internet sites, official document, etc. There are also efforts to gain information implementation of landfill operation from Department of Public Works which assisting regional landfill in all provinces in Indonesia.

This research uses conceptual framework based on study conducted by Rudie Hulst and Andre van Montfort (2007) about Inter-municipal cooperation which has wide spread in Europe. Their study overviews the link between the different forms of inter-municipal cooperation and the issues faced local government. This

research translates the inter-municipal cooperation into regional cooperation which more fit with Indonesia context.

According to Hulst and van Montfort (2007) there are three ways to understanding the working of cooperation involving municipalities. The first step is seeing the characteristics of the national administrative system and the position of local governments. This encompasses the number of administrative levels, the responsibilities distribution between the different tiers government, the scope and autonomy of local government and the number and size of municipalities. The number of administrative level shows the hierarchy of level government in a country which consist central government, second tier government (the nomenclature sometimes differ in each country), and local government. By knowing the number of administrative level will reveal the sharing power among each of level government and the responsibilities distribution between different level government (Hulst and van Montfort, 2007). By knowing this, it might be easy to know the position of central government and second tier government in supporting regional cooperation and also showing the background why the local government does a regional cooperation.

Second step is over viewing the legal framework which specific for cooperation. It will explore the formal rules in shaping cooperation and also can depict how far the legislation of cooperation accommodates the establishment of mixed institutions which might only involve public authorizes or might involve the private . This point also analyzes the patterns of interaction and the possibility of transfer local decision-making powers to joint authorities. Hulst and van Motfort (2007) underlines that *“The legal framework to a large part determines the possibilities for cooperation and can also help to explain the institutions of cooperation and the patterns of interaction that develop because they may encourage or discourage certain types of cooperation”*.

The last point is observing the way upper level government (region or central government) in impetus the regional cooperation by providing incentives or strengthening capacity building. This condition will influence the characteristics of cooperative arrangement. (Hulst and van Montfort, 2007).

## **Chapter III**

### **International Practice**

This chapter aims to identify factors that are important for regional cooperation in Bulgaria and Spain. Bulgaria as one of Central and Eastern European Countries (CEEC) has rearranged its regional levels of administration since this country was changed from a socialist country to a new democratic constitution in 1991. Since that time, Bulgaria started the process of decentralization of the government. As well as Bulgaria, Indonesia has applied decentralization since 1999. Therefore it would be useful to learn how Bulgaria's inter-municipal cooperation implementation related government sharing responsibilities in decentralization condition. Spain has experienced the power of the monarchy government under the Franco regime since long time ago. The joining of Spain in the European Union (EU) in 1986 indirectly gradually changes the pattern of distribution of power, especially in the provision of public infrastructure. Thus it would be interesting to observe Spain inter-municipal cooperation implementation where as the second tier of government has more power than was in Franco regime.

As member of European Union (EU), Bulgaria and Spain have different government system and pace of development. Related EU directive about landfill, Bulgaria and Spain have to minimize and to improve the landfill condition in short time. This case can be a good lesson learned for Indonesia in which politically is under similar situation of the decentralization process and also force situation to attain Millennium Development Goals of sanitation in 2015.

This chapter will divide in four sections. First section, it describes briefly the case study in Bulgaria and Spain. Second section, it discusses the National Administrative System, Third section, it describes the legal framework for the cooperation. Finally, it discusses the system of upper level government in stimulating regional cooperation.

### **3.1. EU Directive about Landfill and EU Cohesion Fund**

European Union (EU) Directives are the formal laws which are bundling the European Union member to attain a particular result without dictating the means of achieving particular result. Related landfill guideline, Council directive 199/31/EC is a regulation that sets down strict requirements for landfill construction and operation and sets national targets for the reduction of biodegradable municipal waste going to landfill (Committee of the Regions, 2006). To support the implementation of 199/31/EC, EU gives financial aid in forming of EU Cohesion Fund. According to European Commission (n.d) “*EU Cohesion Fund is a structural instrument that helps Member States to reduce economic and social disparities and to stabilise their economies since 1994*”. Environmental project is one of the projects that eligible to get EU Cohesion Fund. Environmental project is helping to achieve the objectives of the EC treaty and in particular projects in line with the priorities conferred on Community Environmental policy by the relevant Environment and Sustainable Development action plans. The Fund gives priority to drinking-water supply, treatment of wastewater and disposal of solid waste. Reforestation, erosion control and nature conservation measures are also eligible.

### **3.2. Bulgaria**

In Bulgaria, the chosen case study is Silistra regional landfill. Silistra regional landfill is emerged in situation which is in one side, all landfills in Bulgaria should comply the EU environmental standard meanwhile in other side the finance become essential issue in funding the landfill improvement.

Minkova (2007) explains that Bulgaria is one of Central and Eastern European Countries (CEEC) which previously as a part of the socialist block which lately adopted a new democratic Constitution in 1991. This changing brings Bulgaria government to implement decentralization where as admitting the right of self-government to the basic administrative-territorial units. It can be seen where the local government has more responsibility for public service in

health, education and environmental management service. More over the local governments have more authority especially rights to have fiscal authority. They can decide on the types of local fees to levy a public service based on the local need. It obviously can conclude that decentralization brings new atmosphere both for regional and local level which is undoubtedly changing the political culture as well

Solid waste management is one of public services which is eminent in local government performance. EU Environmental standard regulates how the waste should be handled in European Union member states including Bulgaria. To deal with the EU directive, Bulgaria chose to construct the landfill by using European cohesion fund (under Instrument for Structural Policies for Pre-Accession Programme /ISPA) in high nominal €10,591,972. (Bobcheva, 2007). It can be assumed that improving landfill condition depends on European cohesion fund.

In 1990 the result of inventory of existing landfill put Silistra landfill as landfill that must be improved because it polluted to the surrounding environment and endangered public health of community, meanwhile the landfill has issue relating its full capacity. In 1986 Silistra used landfill located on the steep slopes with permanent water flow. This water stream carried the leachate which polluted the nearby agriculture area. Furthermore leachate penetrated to soil and contaminated the ground water. Another problem showed up in landfill was methane gas which easily self-flammable. Unfortunately there was no monitoring for pollution resulted from biological decay during the landfill operation. In 2001 BT Engineering, an engineering Bulgarian firm, reported that Municipal Solid Waste Management was very poor. Some condition was described in that report are (Bobcheva, 2007); *“Waste collection is not organized well resulting costly operation, there is no separate waste collection, lack of managerial in the administration of waste management, and low fee solid waste collection and low solid waste management budget”*



Figure 3 Six partner municipalities in Silistra regional landfill

(Source : Bobcheva, 2007)

These above conditions triggered the issue of regionalization in landfill operation. The central governments triggered voluntary regional cooperation by launching the regulation that gave authority municipalities to build or to join regional cooperation. Therefore municipality of Silistra has begun to adopt principle of regionalization and to build cooperations with Alfatar municipality and Kainardzha municipality in 2001. Two years later the municipalities of Dulovo, Sitovo and Glavinista also joined with this partnership. Therefore this cooperation served more than 100.000 residents. This project cooperation embraced exploitation, maintenance of the commissioned landfill which physically started in the middle of 2003 and it finished in September 2006.

### 3.2.1. National Administrative System

#### The number of administrative levels

Bulgaria's type of government is a parliamentary democracy and the elections for President and Vice president are conducted within a five-year term. Meanwhile the election of prime ministers is elected by National Assembly.

National Assembly encompass 240 deputies and it has power to enact laws, approve the budget, schedule presidential election, select and dismiss the Prime Minister and other ministers, declare war, deploy troops abroad, and ratify international treaties and agreements. The total number of municipalities is 264 municipalities. Bulgaria has a three-tier government system consisting of central government, district government and local government. In local level, the executive of municipality is the Mayor. For legislative of municipality is the local municipal council. In every a four-year term there are elections for chose the mayor and local council. The connection between central government and local government is mediated by districts governments (*oblasti*) which are the member chosen through none formal election. District government administration is led by Governor who is determined by central government. (Bobcheva, 2007).

*The distribution of responsibilities between different tiers and the scope autonomy local government*

The distribution of responsibility of Bulgaria embraces central level, district level and local government. The Council of Ministers acts as the executive state body and directs the domestic and foreign policy of the country. The prime minister has responsibility in overall policy which should be directed and coordinated. The national government is responsible for arranging the management of state assets, supervising the realization of the state budget, approving international treaties. In level district the governor is responsible for coordinating national and local plans, programmes and policies, dealing with state property located on the territory of the district and managing whether the local council's decision are in compliance with its legislative power (Bobcheva, 2007). In local government, Bulgaria municipality plays as single authorities where they do owning property, discharging legal competences, operating a formal budget. The beginning of the transitional period in 1991 has result a new democratic Constitution in 1991. Furthermore in 1995 it was followed by

reforming on Administrative and Territorial Structure Act which increased the number of regions from 9 to 28. This act brings Bulgaria government to implement decentralization whereas admitting the right of self-government to the basic administrative-territorial units. The constitution in Bulgaria gives protection for local interest which allowed the municipal council brings an unfinished argument between central government and local government to the court. (Drumeva, 2001).

### 3.2.2. The Legal Framework for The Cooperation

#### *The formal rules to establish and shape cooperation*

The inter-municipal cooperation in Bulgaria does not come for the initiation of local government but it was required more effort to improve the condition in order to join the European Union and gain access to EU pre-accession. According to Bobcheva (2007), in previous year there was no regulation that assisted regional cooperation or formal partnership agreement in Bulgaria. Until in 2006 there was a special chapter discussing inter-municipal cooperation in the Law on Local Self-government and Local Administration. In April 2005 the White Paper on the modernization of the administration was enacted. Its objective was improving service delivery, better policy-making, public service, budgetary control and accountability, following the best European practices (Drumeva, 2001). Lately the law decided that regional cooperation should be presented on the signed agreement and approved by the local council. It described the involved parties , the objectives, the duration, methods of financing, the rules for taking decisions and all other aspects of mutual interest (Bobcheva, 2007).

#### *The Permit the establishment regional cooperation*

In the end of 2001 local council in Bulgaria had built municipal consortium to support a framework contract to be signed. Furthermore in 2003 there was a

new bilateral agreement that were signed by the six parties and the Ministry of Environment and Waters (MoEW). In the agreement there are 5 clauses related with inter-municipal cooperation. Article 15 declares *“the right of the local government to take decision regarding the future operation of the landfill in a compliance with the national legislation and the ISPA financial memorandum”* ( Bobcheva, 2007 ) Article 16 requires *“the municipalities to jointly decide how they will operate the facility and inform the MoEW”* . The detail information of cooperation reported to MoEW embrace of: the structure organization of landfill maintenance, the financial landfill operation and its revenues, the standard operation procedure of landfill, and right & obligation for each party in regional landfill. Article 17 offers *“the local authorities under obligation to choose whether to introduce a joint waste management system or make all the compatible”*. Article 18 recommends the decision making to municipalities on the manner in which the landfill, acquired during the project will be owned. Although it argued like that it also emphasize that the land is owned by Silistra. Article 19, the municipalities should *report to the MoEW about their intentions to start a bidding procedure for choosing a landfill operator*. In Silistra project operation the municipalities did not sign an agreement because the municipalities decide that the inter-municipal agreement should be based on the article 16 and some deadline agenda has not decided yet. The level operation in Silistra regional landfill is under municipalities of Silistra. It considered several aspect such as; Silistra is the owner of landfill, Silistra has more vision and has better knowledge in its solid waste management plan. This condition leads Silistra to be the leader of Silistra project regional landfill. The negative impacts of this condition are the lack of synergy among involved municipalities in doing the regional cooperation, there is no transfer of each municipalities own agenda in solid waste management, there is no future financing to develop the management of landfill regional cooperation

### *The involvement other public authorities and the private sector*

In Silistra case study, the involvement of public authorities consist of local government of Silistra, Alfatar, Dulovo, Glavinitsa, Kainardzha, Sitovo local governments and Ministry of Environment and Water. The other involvement of other parties is existence of Non Government Organization (NGO). The membership of this NGO is open for everyone. The NGO acts as advocate of municipal interest in Silistra landfill. Even though there was several discussion conducted by NGO but it did not keep the pluralism in decision making process among the stakeholders such as ignoring the point of views of its member and also never discussed about the form of other financial contribution for landfill operation besides the operation cost.

#### 3.2.3. Supporting Upper Level Government

Legislation and incentives are two variables that can enhance and improve the implementation of regional cooperation. In Silistra case study, the incentive was coming from the ISPA financial which parts of EU Cohesion. So it can be assumed that Silistra has lack of financial incentive to improve the landfill condition.

#### 3.2.4. Concluding Remarks of Bulgaria Case Study

Related with the research, the information of National Administration System depicts briefly the distribution of sharing responsibility in Bulgaria. Reforming on Administrative and Territorial Structure Act in 1995 allowing local level government has the authority to provide public service including solid waste management.

Discussing the legal framework as one of the elements that need to be analysed, the permit of the establishment regional cooperation has guaranteed the sustainability of the regional cooperation, the equal interest of each stakeholder and the play role. This research figures out Silistra case study (Bulgaria) has no signed an agreement in doing regional landfill. The impact

of absent of the permit regional cooperation can be seen from Silistra landfill regional cooperation performance which indicated there is sensitiveness among the involved parties. The level operation of regional landfill is under the Silistra municipality authority which makes difficult to accommodate each policy from municipalities involvement. Related with the parameter of the involvement other public authorities and the private sector, Silistra has already involved other parties in the project. But the involvement of NGO brings no impact to accommodate the aspiration of municipalities of Alfatar, Dulovo, Glavinitsa, Kainardzha, and Sitovo.

Related with involving upper level government, initiation of Silistra regional landfill cooperation depends on financial incentives from EU cohesion.

### **3.3. Spain**

Bel, G & Mur, M (2008) in their articles stated that becoming a member of the European Union making Spain must comply with the European directives (article 3 of Directive 2006/12/EC) to reduce the amounts of biodegradable municipal waste going to landfills. It encourages Governments to formulate national strategies in order to meet the EU directive. In the middle of 2016 Spanish Government must be able to reduce 35% of the amount of biodegradable waste in 1995 sent to landfills. (The final target states that not later than July 2016, biodegradable municipal waste going to landfill must be reduced to 35 % of the total amount by weight of the biodegradable municipal waste produced in 1995).

One of the actions taken by Spanish Government is conducting inter-municipal cooperation which gives advantage in reducing the cost of production and services. But occurrence phenomenon in Spain is quite unique. In Spain more than 85 percent of the municipalities are fewer than 5000 inhabitants. (Font, J & Parado-Diez, S. 1999). This is a somewhat difficult for the Government because this number is considered to be small for the

provision of infrastructure. This situation has emerged various patterns of inter-municipal cooperation.

The types of cooperation are purely inter-municipal cooperation and partnership among municipalities and private sector. Inter-municipal cooperation that purely involved municipalities runs well in municipality that has not very dense population. Municipalities containing more than 2000 people show that inter-municipal cooperation mix with private companies is more preferable. The amount of the financing of waste management through inter-municipal and privatization is not showing a significant difference. This is based on the research, some scientists as Hirsch and Kemper (Bel, G and Mur, M. 2008)

There are two types purely municipal partnerships: *mancomunidades* and *consortia*. The Mancomunidad is a type of public horizontal partnership among local level. In the meantime the consortium more refers to the type of vertical partnership involving the upper level government such as the autonomous community. Both *Mancomunidades* and *Consortia* involve two or more municipalities. Actually the intergovernmental partnerships have existed for long time ago since the era of General Franco government In dictatorship era, *mancomunidades* was based on Local Regime Act 1955. Now it is based on Basic Local Law 1985. The members of one *mancomonidades* should not come from the different Autonomous community. Waste management in *comarcas* (counties) and *mancomunidades* (associations of municipalities) are strongly influenced by inter-municipal cooperation and privatization. This research will explore briefly study case Uribe-Kosta Partnerships from Mancomunidad type in Spain.

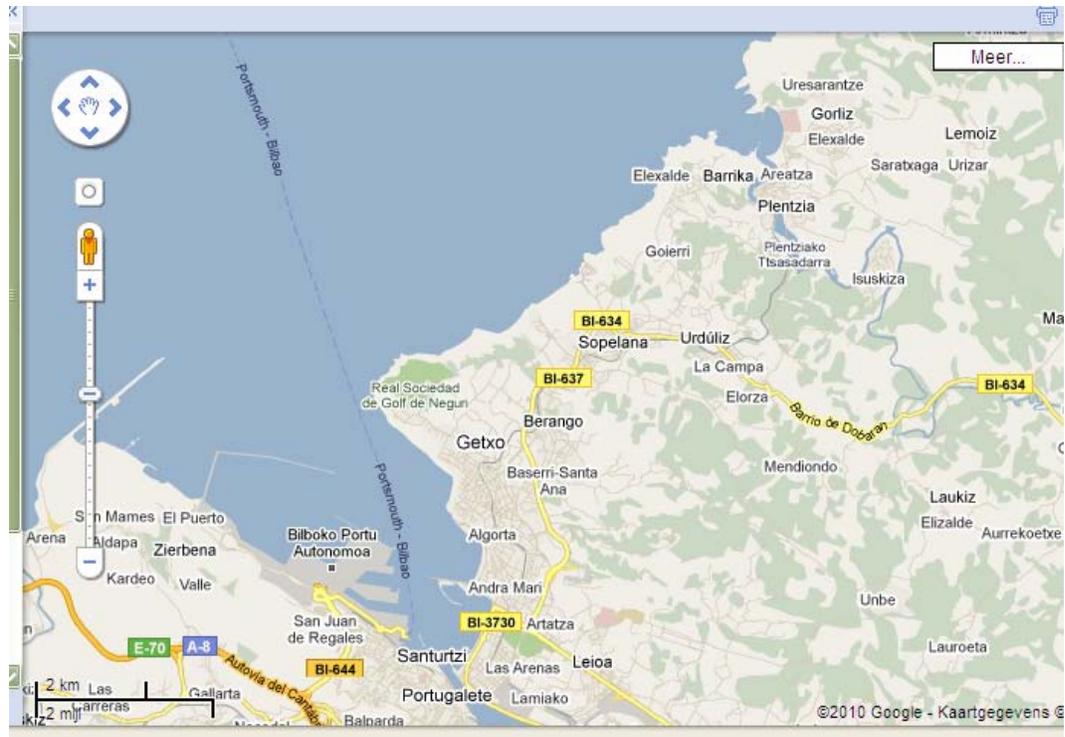


Figure 4 Six municipalities in Uribe-Kosta Partnerships

(Source: Google Map)

This project was started in 1992 which involves six municipalities; Barrika, Gortiz, Lemoiz, Plentzia, Sopelena and Urduliz. (Font, J and Parado-Diez, S. 1999).

This partnership is located in metropolitan Bilbao which has population around 20.000. This *mancomunidad* partnership performs in four public services: waste management, social service, consumer information and protection of the Basque language. The background of this mancomunidad partnership are :

1. Bilbao Metropolitan growth gives a significant impact to the increasing population in Uribe-Kosta Partnerships (UKSP). Then, Uribe-Kosta citizen ask the local government to provide public service whose its quality equal to public service in Bilbao metropolitan. Unfortunately the Uribe-Kosta Government faces financial constraints. Therefore, the Government of the city Uribe-Kosta needs other strategies for public service in the housing sector.
2. The provincial government has policy in improving and bolstering cooperation between the municipalities, so this situation gives advantage for

UKSP for getting financial aid. In 1995 the seriousness of the province Government can be seen from the assertion in province legislation that expressing support for the inter-municipal cooperation finance.

3. Six cities of Uribe-Kosta Partnerships have history in cooperating on social issues, culture and the environment. Therefore, it is considered necessary to improve the cooperation in one joint partnership in facing challenge of managing recycling solid waste, drug abuse, and preserving the Basque language.
4. At the beginning of regional government provides subsidies to promote implementation of inter-municipal cooperation. Then, slowly, the regional government reduces the financial aid and transferred it into municipal governments budgeting. In order to continue to provide the same level service to the community, the Uribe-Kosta Partnerships municipalities agree to share the financial burden of this public service.

From the data it shows that the Silistra landfill and UKSP patnerships have different scope of projects. Silistra landfill projects is only focus on six municipalities improve Silistra landfill. Meanwhile the UKSP Patnership consist of four sectors: waste management, social service, consumer information and protection of the Basque language.

### 3.3.1. National Administrative System

This research will picture three elements of National Administrative System based on the theoretical framework; the number of administrative level, the distribution of responsibilities between different tiers, and also the scope and autonomy of local government.

#### *The number of administrative levels*

Spain is a democratic constitutional monarchy where as president acts as the head of government and the king act as the head of state. The President decides the member of council of ministers. Congress of Deputies (*Congreso de los Diputados*) and the Senate (*Senado*) are two chamber of parliament dominating

the legislative council. They are selected every four year by autonomous communities. Spain government consists of the state, 17 autonomous communities, 50 provinces and 8098 municipalities (Armstrong.E, French.C 2002)

This research explains the system of the Bulgarian and Spain government and how many levels in their National administrative system. This will be connected with distributions of responsibilities between different tiers.

*The distribution of responsibilities between different tiers and the scope autonomy local government.*

The distributions of responsibilities between different tiers in Spain are outlined in Article 148 and Article 149 of the Constitution. Based on Font, J & Parado-Diez, S (1999). In their article Armstrong.E, French.C (2002) stated that “*An important aspect of the new constitution was the devolution of power to 17 regions or autonomous communities. Statutes of autonomy drawn up by these communities, guaranteed them the right to self-government, and these statutes were also ratified through referenda. The powers of these communities are entrenched in the constitution, which also permits the degree of self autonomy to be dictated by the wishes of the nationalities and regions themselves*”.

The autonomous communities have their own president, legislative body, government, administration and Supreme Court. The autonomous communities are given additional power in fiscal and legislative by central government. (Moreno, 2002) This is a way where they can decide their planning region, public works, agriculture, and tourism. The Autonomous Communities basically do not have their own constitutions, but they have *Autonomous Statutes*, the basic law, that emphasize unity and autonomy. The *Autonomous Statutes* are negotiated rules between the national parliament and the legislative assemblies of each community but, as important as they are, are subordinated to the constitution (Herrera, D.G, 2006).

Transfer responsibility from the national government to Autonomous communities in providing public service through cooperation agreements were increasing during 1988 – 1997. It was indicated that the Autonomous communities proved that they had good performance in providing public service, so the national government gave them more authority in public service. It can be seen at the graph below.

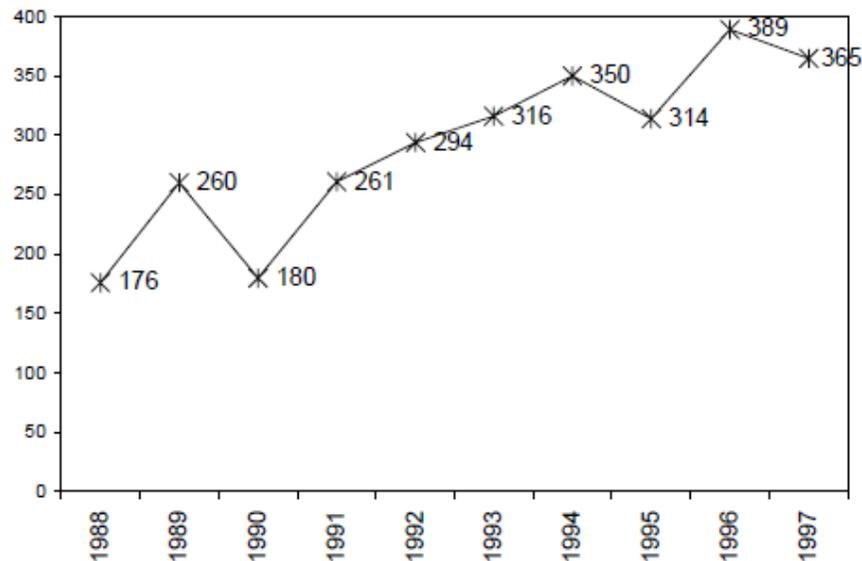


Figure 5 Co-operation Agreements between the Spanish National Governments and Autonomous Communities

(Source : Font, J & Parado-Diez, S, 1999)

In Spanish local government, the size of population in each municipality will affect its responsibility. The descriptions based on Ministry of Administration Public are below:

- All municipalities: public lighting, cemeteries, waste collection, public cleaning, drinking water supply. Sewer system, acces to urban area, road surfacing, and food and drink control.
- Municipalities with more than 5000 people : public libraries, market, public parks and waste management.
- Municipalities with more than 20.000 people : civil defence, social work, fire safety and sports facilities for public use.

- Municipalities with more than 50,000 people : urban passenger transport and environment protection.

### 3.3.2. The Legal Framework for the Regional Cooperation

#### The formal rules to establish and shape cooperation

As stated before, Spain has practiced inter-municipal cooperation since long time ago. It started in 1812 based on Cadiz Constitution. The nature of inter-municipal cooperation was obligatory. Now, the decision to establish in inter-municipal cooperation is more discretionary. The inter-municipal cooperation referring to the horizontal co-operation among regional government is very rarely due to the asymmetrical shape of regional state. Autonomous community that more developed does not prefer to cooperate with autonomous community that still developing. This matter is an impact of competing principal that supported by Central Government. The *mancomunidad*, a horizontal partnership, during Franco regime was refer to Local regime Act of 1985. And now it is refer to Basic Local law of 1995. There is also restriction that municipalities from one autonomous could not join the *mancomunidad* in other different autonomous communities. The regulation of inter-municipal cooperation will influence the neighbouring local Government to observe their potential and weakness area in order to improve the provision for public services.

#### The Permit the establishment regional cooperation

Uribe-Kosta Partnerships service is from of *mancomunidad* which is a free association of municipalities. Therefore the agreement of partnership is based on *Mancomunidades* agreement. A *mancomunidad* figures entity within the national legal framework, to which those municipalities delegate some of their functions and powers. The further explanation such as the name and number of UKSP partnership could not be described due to the limited information.

### *The involvement other public authorities and the private sector*

In case of the Uribe-Kosta Partnerships (UKSP), the involvement of public authorities consists of municipal government of Barrika, Gorniz, Lemoiz, Plentzia, Sopelena and Urduliz. The limited involvement of stakeholders in this partnership is understandable due to the small scope of its public services.

### 3.3.3. Supporting Upper Level Government

In Spain case, reward and punishment are applied. The document stated that member municipalities will give grant additional powers to the UKSP as long as it complies with their instructions. Provincial government prepares funds as financial incentives to the partnership. According to Font, J & Parado-Diez, S (1999) incentive mechanisms of inter-municipal cooperation in Spain consist of two types: money and authority. Authority and financial grant will be given to the *mancomunidades* that success in inter-municipal cooperation so they can expand their public services variation. Meanwhile if the *mancomunidades* could not give a good performance, they will be punished by autonomy diminution and authority delegation by political leaders.

### 3.3.4. Concluding Remarks of Spain Case Study

The National Administration System of Spain depicts briefly the distribution of sharing responsibility. As a democratic constitutional monarchy Spain has particular character in the level of central government. The interesting point is the existing of autonomous communities which has more authority as second tier government and has right to choose both the member of congress of deputies and the senate. Autonomous communities influence the regional cooperation shape among their municipals, as well.

From discussing the legal framework, Spain has long history with regional cooperation since 1812. Therefore Spain has more experience in regional cooperation. Regional cooperation in Spain are divided into Consortia and *Mancomunidades*. *Consortia* are a vertical cooperation and *Mancomunidades* are horizontal cooperation.

On the other hand, Uribe-Kosta Partnerships has no involvement of other parties. The reason is the small scope of public provision. So the key point is the clearly objective of involving other parties should be formulated before having engagement with other parties.

From the point of involving upper level government, UKSP Partnership has a good point in getting supporting from upper level government. There is a reward and a punishment system in evaluating the performance of regional cooperation. The interesting note here is the incentive might be a good step to encourage a new regional cooperation of landfill. Implementing reward and punishment could be a nice line in performance-enhancing of regional cooperation in solid waste management

### **3.4. General Conclusions**

After elaborating the characteristic government and regional cooperation in Bulgaria and Spain there are some conditions that make the performance of regional cooperation of solid waste management adequate and inadequate. These can be good lessons learned for landfill regional cooperation in Indonesia;

- Spain proves that its second tier of government has strong rule in supporting in regional cooperation. The autonomous community can exist as a mediator and a coordinator in bridging the gap of different mutual interest of municipalities involving.
- Spain applied political incentive to give reward and punishment in supporting regional cooperation. The reward in the form of financial grant will help the *mancomunidades* to increase its role and improve its management. Meanwhile the punishment can remove or delegated its authority in provision public service.
- Silistra landfill regional cooperation fails to force the involved municipalities to sign the formal agreement of their regional cooperation. It will impact to the less understanding among involved municipalities in

achieving goals and expectations. It further decreases the value of showing mutual trust and respect among involved municipalities.

- Silistra has weakness in ensuring the role of Non-Governmental Organisation in its regional cooperation.
- Financial incentives are important aspect in supporting regional cooperation. Silistra regional landfill has EU Cohesion funding in initiation the landfill regional cooperation.

The next chapter will explore the performance of landfill regional cooperation in Indonesia which also took similar parameters as International case studies.

## **Chapter IV**

### **Indonesia Case Studies**

This chapter aims to give a better understanding of the performance of solid waste management development in Indonesia in attaining one of the Millennium Development Goals in sanitation in 2015; *to reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.*

The research chose Bangli case study and Piyungan case study. Piyungan landfill is a pilot project for regional cooperation in west of Indonesia. Bangli landfill is planned to be a pilot project for sanitary landfill for east of Indonesia but Bangli has not started the regional cooperation yet due to a long dispute to achieve the agreement of landfill regional cooperation.

This chapter is divided in five parts. First, picturing Indonesia in General, Second, describing Piyungan regional landfill and Bangli regional landfill, Third, explaining National Administrative System in Indonesia, Four, explaining the legal framework for the cooperation, The involvement other public authorities and private sector and Five, picturing the stimulant from upper level government in regional cooperation.

#### **4.1. Indonesia in General**

Indonesia, an archipelagos country with 17,508 islands and total area 1,904,569 sq km, is located in southeastern Asia dominated by mountain and coastal. Indonesia is a unitary state consisting of 30 provinces and 3 special provinces (Nangroe Aceh Darussalam, Jakarta and Yogyakarta).

A presidential system has been applied in Indonesia government. Indonesia elections for president and vice president are accomplished for five-year terms by directly vote of the citizen through general election. Executive authority is constitutionally vested to president. The president has right to appoint and dismiss the ministers, to propose draft of laws to the House of people representative (DPR). The members of House of people representative (DPR) are coming from

political parties which are elected by general elections. The House of representative has authority to propose the law, to discuss and legalized the laws with the President.

## 4.2. Case Studies

### 4.2.1. Piyungan Regional Landfill

A city with a small developed area and covers only a small part of administrative boundaries, the provision of public service and infrastructure will become a simple matter comparing with management issues emerged from the city development with administrative area exceeding the borders.

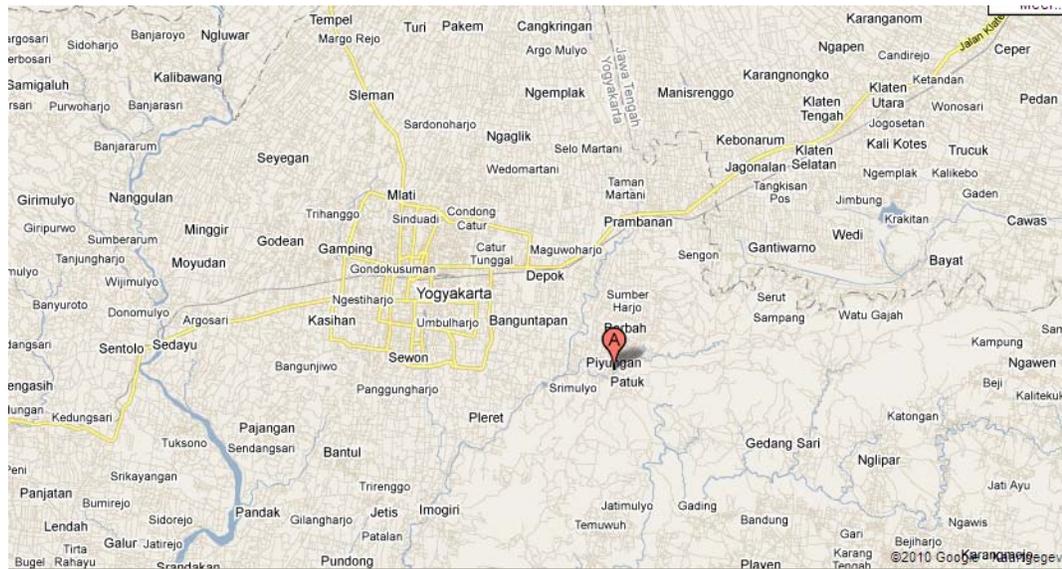


Figure 6 Piyungan landfill location

(Source : Google Map)

The growth population in Yogyakarta caused the settlement expanded outside of the city which the area belongs to Bantul and Sleman regencies. This condition gradually has changed Bantul and Sleman characterization from rural to urban. In Sleman within a period of 10 years, 253 hectares of agricultural land switch functions into non-agricultural land every year. In Bantul, the land conversion happens 85.75 hectares per year.

This urban agglomeration has emerged problems in providing public services and infrastructure such as the supply of drinking water, waste water management and solid waste management. Some potential conflicts occurred for instance the degradation of water river and groundwater quality in Bantul due to less maximal land management in the upstream region (city of Yogyakarta and Sleman district) and poor waste management. In this case regardless of administrative boundaries, urban infrastructure and public service will have optimal performance if it is managed as a single system performance. The interconnection and interdependent among one local government and others has lead Yogyakarta, Sleman and Bantul forming a regional cooperation or under a Joint Secretariat established in the year 2000 after 8 years of preparations and persuasion by the provincial government.

Providing public service by implementing inter-municipal cooperation is not a new matter for the local governments of Yogyakarta, Sleman District Government and the Government of Bantul Regency. In earlier year the three local governments was quite accustomed to cooperate, for instance in 1992 when dealing with integrated urban infrastructure development projects. Decentralization has given more authority to local governments in managing the development of their regions. However, the three Governments realize that the regional cooperation is a necessary step to be done.

Piyungan regional landfill cooperation is formed under a Joint Secretariat, namely Kartamantul (abbreviation from Yogyakarta, Sleman and Bantul) managing urban infrastructure and facilities in the border region of the three local governments which focus on waste management, waste water management, roads, transportation and drainage.

The tasks and functions of a Joint Secretariat are, first coordination, facilitation, and mediation related to the management of urban infrastructure and facilities. Second, estimating advice/input, policy formulation, development of policy options is best for district/city. Third, monitoring and evaluation related to efforts to control.



Figure 7 Piyungan Regional Landfill

(Source: onthelpotorono.wordpress.com)

#### 4.2.2. Bangli Regional Landfill

Bangli landfill is located in desa banglet in Bangli district. Bangli regional landfill is 4,75 Ha and receives 80 – 100 m<sup>2</sup>/day solid waste. Bangli regional landfill accommodates four districts: Gianyar district, Bangli district, Karang asem dan Klungkung district. These district has own their problems in solid waste management which will be described as below.

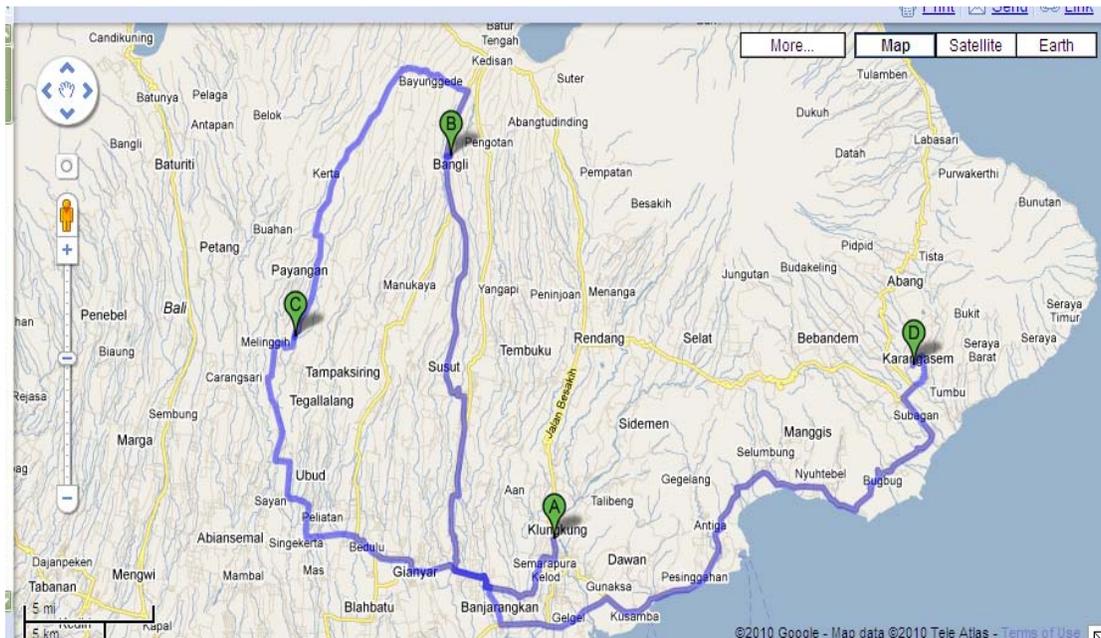


Figure 8 Four districts in Bangli regional landfill cooperation

(Source: Google Map)

Gianyar district comprises eight sub districts but it only serves solid waste for four sub districts (Gianyar, Ubud, Blahbatuh and Sukawati). These four districts produce 480m<sup>3</sup>/day. While the other four districts not yet served by the environmental agency. For 15 years Gianyar district was sending solid waste to Temesi landfill. Temesi landfill, an area ±1,8 Ha, that has been operated with open dumping system is unable to accept more solid waste because the full capacity of landfill. (Ministry of Public Works, 2007).

Bangli district consists of Bangli subdistricts, Kintamani Sub districts, Susut subdistricts, and Tembuku subdistricts. Total production of solid waste produced by four of these districts is 468 m<sup>3</sup>/day, but only 43% of solid waste was transported to landfill. Banglet landfill. Banglet landfill with 4.75 hectare area had been operated with open dumping system. But since 1996 the Banglet landfill has been operating with the concept of sanitary landfill.

Karang Asem office of environment and cleanliness handles 110 m<sup>3</sup>/day of solid waste from three districts (Bebandem, Selat and the Kubu). Meanwhile, five other districts (Karang Asem, Rendang, Sidamen, Mangis, Abang) are not served yet by Karang Asem office of environment and cleanliness. Solid waste from Karang Asem district is treated in Linggasana Landfill which has total area 2 hectares and can not be developed further.

Klungkung Area consists of 4 areas; Klungkung district, Dawan District, Nusa Penida District and banjarangkan district. Klungkung office of environment and cleanliness only carried out solid waste from Klungkung and Dawan subdistrict. The solid waste is transferred into Sente landfill. Everyday Sente landfill with total area ±1 ha has to process 133m<sup>3</sup>/day of solid waste.

These districts are aware that potential resources of their area are dependent of tourism sector. In order to preserve their resource and keeping aesthetic appeal of *tourist* destinations, the solid waste management needs to be improved. The complicated situation of landfills and the spirit of enhancing the service of solid waste management make Giayar, Bangli, Karang Asem and Klungkung in 2007 to decide a regional landfill cooperation. They decided to use Banglet landfill.

This decision based on existing condition that potential to be regional landfill. The Ministry of public works gives technical assistance by helping in detail engineering design. This regional landfill operated in 2009 has capacity 550 m. Banglet landfill spending 32 thousand million from the National budget just only receives 80 to 100 cubic metres of solid waste. This landfill is planned for the next 10 years with a sanitary landfill system. (Balipost. 2010) The Bangli landfill had been operated in few months. But now it stopped because the formal agreement has not been compromise among the stakeholders. (Balipost, 2010)

Reformation in 1998 leading Indonesia into decentralization era has changed various governmental institutions, reformed the structures of the judicial, legislative, and executive. Bigger responsibility to provide public service for community has directed Gianyar district, Bangli district, Karang asem district and Klungkung district to build inter-municipal cooperation.

### **4.3. National Administrative System in Indonesia**

In this research the data will be described based on the criteria of National Administrative in Inter-municipal cooperation; the number of administrative level, the distribution of responsibilities between different tiers, the scope and autonomy of local government. These criteria have been adopted from Theoretical framework.

#### **4.3.1. The number of administrative level in Indonesia**

Indonesia has a three-tier government system consisting of central government, provincial government and local government (regions and municipalities). The province, the regions and the municipalities have their own legislative board and government system. The executive of provincial government is governor. In local level, the executive of municipality is mayor or head of regent. For legislative of each level government has house of representative.

#### 4.3.2. The distribution of responsibilities between different tiers and the scope autonomy of local government.

Reformation spirit and democracy process has inspired the government to yield regulations about local government role in development. In 1999 the government realized Law no 22 about local governments and Law no 25 about finance balancing. Both of these Acts has become legal basis in decentralization and regional autonomy.

In national level, central government authorities are: (a) foreign policy, (b) defense and security; (c) justice, (d) the monetary and fiscal policy, (e) religious and (f) the authority in other fields. Related with central government authority in other fields was explained in article 7 of the law 22 Year 1999: (a) national planning and control of national macroeconomic development, (b) the balance of funds, (c) the system of State administration and State economic institutions, (d) development of human resources and training; (e) the efficient use of resources of high-tech strategic, and natural (f) conservation, and (g) the national standards.

Inside the Law No.22 of 1999 explicitly noted that the authority of local government is regulating and managing the interests of local people on the basis of community aspirations within a united state. This authority includes the authority within all sectors of administration unless the authority which still belongs to the central government.

In 1998 was a transition period for Indonesia, namely reformation which has been characterized by freedom of speech and more open political debate leading to political transformation. Law No. 25/1999 about Fiscal Balance between the Centre and the Regions provided the concept of decentralization and regional autonomy into reality.

Policy of decentralization and autonomy has given greater authority to local governments to manage development in the region based on the conditions and needs of each region. With its authority, each local government is expected to improve public services to their communities so in the end will enhance the community welfare.

Article 4, paragraph 1 and 2 of Law No. 22 of 1999 indicated that provincial and local government is no longer having a hierarchical relationship. Hence, each of the autonomous regions shall have the right to plan, conduct and supervise development in their regions. Therefore the local governments (the municipalities and regions) are no longer governed by the provincial government. Similarly, the provincial governments are not governed and depend on the Central Government, with the exception of certain tasks performed in the framework of the decentralization and assistance. This law resulted local egoism in every municipalities and cities in Indonesia. The statement no hierarchy relationship between local government and province government made the local government feeling like a small kingdom of their own territory. It could be interpreted as “local egoism”. After the Law 22/1999 fully implemented, the central government concluded that the municipalities and district could not be controlled, because the municipalities and districts did not consider the existence of the provincial government. Then Law No 32, 2004 emerged as replacement of Law 22, 1999. Relating with the sharing responsibilities, the law stated that :

Article 10 : *Local government conduct its responsibility except the responsibility which belongs to Central Government ( foreign policy; defense; security; justice national monetary and fiscal policies, and religion.)*

Article 11 : *The responsibility of local government concerning its authority are 16 responsibilities. One of it providing public works (water resource management, settlement development, water supply system, Sanitation, Road and Bridges, Spatial Planning).*

Even though the Law no 32 is not containing the statement of ‘no longer having a hierarchical relationship between provincial and local government’, but there are several doubts matters especially in *Deconsentration* issues. Deconcentration (distribution office of the department / central government agencies across the region of Indonesia) is a condition where the central government uses the Governor role to do parts of central government responsibilities. This condition aims to strengthening the position of Governor

which had been weakening in era of Law 22/1999. Apparently the deconcentration task is not running well. The deconcentration tasks in Law 32/2004 are ambiguous. Why deconcentration is important in this point? Because the central government supervises the implementation of regional solid waste cooperation by using the deconcentration task. With applying deconcentration task the central government can give financial incentive and also technical guidance. Now the revision of Law 32/2004 is still discussing.

#### Concluding remarks

Decentralization brings issue of more authority for local government, including more responsibilities in providing public service in solid waste management.

After implementing Law 32, 2004, the local egoism phenomenon can not be ignored. Because the phenomena still exist until know, for example the implementation of regional landfill of Bandung Raya which is still suspended because no one of local governments providing land for the landfill.

In theory, decentralization provides the local governments more authority in develop its area. In Indonesia, most municipalities and districts still depend on operating revenues. Meanwhile provision public service of solid waste management is not directly give advantages to the local economic. Therefore the solid waste management is not popular priority in the long list public provision of local government. It will give impact to the difficulty of landfill improvement. And the ambiguous of Law 32, 2004 is used by municipalities and districts as an excuse to do local egoism. Therefore the role of governors which administers the province as an autonomous region and serve as arm's length of central government must be clarified. In addition, the division of authority should be regulated more in details.

### **4.4. The Legal Framework for The Regional Cooperation**

#### 4.4.1. The formal rules to establish and shape cooperation

Inter-municipal or Regional cooperation has been regulated in Law no 22/1999 and its revision Law no 32/2004. Both of these regulations implicitly stated that

regional cooperation is needed to conduct development of urban area in order to enhance community welfare by considering the efficiency and effectiveness of public services, synergy and mutual benefit.

The following regulations that support cooperation among local governments are:

1. Law No 25, 2004 about system of national development planning. This law focuses to the legal framework in development of planning, both central and local governments.
2. Law No 32, 2004 about Local government which is a new revision from Law no 22 /1999 because Law no 22 is not fit the development of political situation, constitutional and the demands of regional autonomy. It has been discussed before that Republic of Indonesia is divided into 33 provinces which are the provinces also consist of cities and district. Cities and district has their own autonomy. Here the Law no 32/2004 supports the implementation of autonomy in all matters of local authorities, including waste management.
3. Law no 18/2008 - Article 28 stated that the Constitution of the Republic of Indonesia gives a right to every person to obtain a good environment and a healthy life. The consequence of this statement is obliged the local governments to provide public services in waste management. It pushes the local governments to be more competent and to be good decision-makers in the field of waste management. In their operations in solid waste management, they should elaborate it with business entities and also get the participation of the community.
4. Law no 18/2008 - Article 28, paragraph 1, stated that everyone has right to getting a good environment and a healthy lifestyle. The consequence of this statement is obligating the Government to deliver public services in waste management. Therefore to perform its authority the central government can build partnership with non government organization and also involving the community.
5. Government Decree No. 41 of 2007 about the local government organization. In article 7 stated that in local government agency regional body can set an

organization to handle technical and operational which has particular scope working area.

6. Government Decree No. 50 of 2007 about procedures for the implementation of regional cooperation. Based on this regulation, the cooperation is the procedure of agreement between governor with governor or governor with the mayor of districts or with the third parties. The third parties could be department or non-ministerial government institution or a private legal company or State-owned enterprises or Local Government-owned enterprises or others legal institutions.
7. Regulation of the Minister of home affairs no 69 years in 2007 about urban development cooperation. Development and rapid growth of urban areas has raised several problems of inter-regional such as increasing the number of waste generation. Therefore it is incremental to having a sustainable cooperation to promote the efficiency, effectiveness and synergy in the delivery of public services to the public. This context can be performed as a written agreement between the governor and district regional heads and the cause of the rights and obligations under the urban development implementation. Article 6, point (g) explains that the task of the central government and local government are coordinating with other government agencies, community and private parties in order to have an integrity in the management of waste. Article 7, point (c), the central government has authority for facilitating and developing regional cooperation, partnership and collaboration in the sector of waste management  
Article 8 point (b), the province has authority to facilitate the cooperation between regions within a province, partnerships and networks in waste management.

#### 4.4.2. The Permit of the establishment of regional cooperation in Kartamantul

The regulation that basis foundation for the Kartamantul Joints secretary are :

1. Decree of Jogjakarta's Governor no 175/KPTS/1995 about guidelines for implementation and management of urban infrastructure.

2. Collective agreement of Bantul, Region of Sleman and Jogjakarta Municipality no 583b/B/SKB/Bt/1996.310/Kep/KDH/1996 about Inter-regional cooperation within the framework of the implementation of the development of urban infrastructure management
3. Decree of Jogjakarta Governor no 200/KPTS/1997 about establishment of the secretariat of the development cooperation agencies Jogjakarta Sleman and Bantul
4. Collective agreement of Regent of Bantul, Region of Sleman and Jogjakarta no 04/Perj/RT/2001 and No 38/Kep.KPH/2001, No 03/2001 about establishment of Joint Secretariat
5. Collective agreement of Regent of Bantul, Region of Sleman and Jogjakarta municipality No 152a/2004, No 02/SKB.KDH/A/2004, No 01/2004 about Revision of Collective agreement of Bantul Regent, Regent of Sleman and Yogyakarta Mayor.
6. Collective agreement of Bantul, Region of Sleman and Jogjakarta city government no 152b/2004 and No 03/SKB.KDH/2004, and No 2/2005 about appointment of chairman, secretary, treasurer of administration of Kartamantul Joint Secretariat periode 2004 – 2006

#### 4.4.3. The Permit of the establishment of regional cooperation in Bangli

Permit in establishing the cooperation in Bangli regional cooperation based on Decree of Head Public Works Province Office no 188/21/DPU about Formation and composition of Institutional Management Team Facilitation for Regional landfill 2008 and Formation and composition of the Management Team Institutional Development Facilitation PS 2008 Regional Solid Waste Landfill. But the agreement among the municipalities still in drafts;

- Joint agreement of Bangli district head, Gianyar district head, Klungkung district head and Karangasem district head (2008) about managing of regional landfill.

- Collective agreement of Bangli district head, Gianyar district head, Klungkung district head and Karangasem district head 2008 about managing of regional landfill.

Bangli regional landfill will managed by one technical body under Bali province public works. The form of cooperation will part of Public Works Office of Bali Province.

#### 4.4.4. The Permit the establishment landfill regional cooperation of Piyungan under Kartamantul Joint Secretariat.

As discussed before that Kartamantul secretariat has managed several sectors including managing solid waste management which is the main subject in this research. This activity based on legal agreements, collective agreements of Regent of Bantul, Region of Sleman and Jogjakarta no 07/Perj/Bt/2001, 05/PK.KDH/2001, dan 02/PK/2001 about Piyungan regional landfill located in bantul district.

Piyungan regional landfill agreement was signed on 28 November 2001 in Radisson Hotel- Jogjakarta. The agreement was made on the basis of mutual cooperation and benefit in operations, maintenance of infrastructure and facilities. The aim of this project is to manage Piyungan landfill to be effective, efficient and meet environmental standards. The agreement comprises 25 chapters;

Table 1 Piyungan Regional landfill agreement (Source: Kartamantul joint secretariats)

<ul style="list-style-type: none"> <li>▪ Chapter 1. Basis and Purpose</li> <li>▪ Chapter 2. Principle of cooperation</li> <li>▪ Chapter 3. Scope</li> <li>▪ Chapter 4. Management of ooperation and maintenance</li> <li>▪ Chapter 5. Development of infrastructure and facilities</li> <li>▪ Chapter 6. Formation of organizations</li> <li>▪ Chapter 7. Managers</li> <li>▪ Chapter 8. Supervisor</li> <li>▪ Chapter 9. Arrangement of personnel in monitoring team</li> <li>▪ Chapter 10. Functions and tasks of monitoring team</li> <li>▪ Chapter 11. Responsible of agency</li> <li>▪ Chapter 12. Procedure</li> <li>▪ Chapter 13. Ddetermination of personal incomes</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 14. Environmental Management</li> <li>Chapter 15. Financing and infrastructure development</li> <li>Chapter 16. Retribution fee and tipping fee of landfill</li> <li>Chapter 17. Obligations of the stakeholder</li> <li>Chapter 18. Rights of the stakeholder</li> <li>Chapter 19. Obligation of administrator</li> <li>Chapter 20. Right of administrador</li> <li>Chapter 21. Year Period</li> <li>Chapter 22. Sanctions</li> <li>Chapter 23. Dispute</li> <li>Chapter 24. Closing provisions</li> <li>Chapter 25. Starting term period of agreement</li> </ul>
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#### **4.5. The System Upper Level Government in Stimulating Regional Cooperation**

Piyungan landfill is a regional landfill that run smooth than other regional landfills in Indonesia. Both Piyungan and Bangli landfill get support from the upper level government. The provincial has supported piyungan landfill. The role of the Sultan Yogyakarta which act also act as Yogyakarta governor is also influential, particularly in the provision of Piyungan landfill. Even though Piyungan landfill is located in the district of Bantul, but the status of land is owned by Sultan's Palace which belongs to previous King of Yogyakarta, Sultan Hamengkubuwono X.

Bangli gets financial support from central government to develop landfill from open dumping into sanitary landfill.

In enforcing regional cooperation in solid waste management, Ministry of Public Works has run some seminars in Sumatra, Java, Kalimantan and Sulawesi about the advantage of regional landfill in overcome the landfill management problem as a persuasion movement. The central government invited the provincial government, the municipality's government and the local legislative member. The central government introduces the option in regional cooperation shape.

The policies of ministry of public works also motivate the municipality governments in implementing regional cooperation. First the central government gives aid in financing on the development of coating Geo-membrane on the landfill. Second, the central government gives advices and technical assistance in building regional landfill technical institution (*Unit Pelaksana Teknis Daerah TPA Sampah*). Third, Ministry of Public Works also monitors the operational of Bangli landfill through annual assessment on solid waste management sector namely PKPD (*Penilaian Kinerja Pemerintah Daerah*). Meanwhile the Ministry of Environment in every year gives assessment for every municipality for encouraging clean city. One of the assessment points is evaluating each landfill condition and its effect toward the environment and neighbouring communities.

### Concluding remarks :

The assistance from the Central Government both in financial and technical indicates that the Central Government has a responsibility to give directions to local municipality in implementing the regional cooperation. Central Government realizes that local municipality has limited capacity in resource and knowledge. Thus by assisting the local government in this way will generate an enthusiasm of the local authorities to improve the solid waste management.

## **4.6. The Involvement of Other Public Authorities and The Private Sector**

### 4.6.1 Bangli Regional Landfill

Bangli regional cooperation involves the participation of the central government, local governments, international funding. In the beginning Bangli regional cooperation has support technical and finance from National Government. Bangli regional cooperation is planned to be pilot project of sanitary landfill.

Governments involved in this cooperation are the Government of Gianyar district, Bangli district, Karang asem dan Klungkung district. The local governments consists of public works office from Gianyar, Bangli, Karang asem and Klungkung, office of environment and cleanliness from Gianyar, Bangli, Karang asem and Klungkung, office from local planning board Gianyar. In level of province, it also involves office of Bali province planning board and office of Bali province public works. Participation of private actor in this cooperation has not visible yet.

### 4.6.2 Piyungan Regional Landfill

Governments involved in this cooperation are the Government of Yogyakarta municipalities, Sleman district, Bantul district. There are several government authorities took part in Piyungan Landfill. It can be seen from the involving of public works office from Jogjakarta, Sleman, and Bantul, office of cleanliness from Jogjakarta, Sleman, Bantul. In level of province, it also involves office of

Jogjakarta province planning board and office of Jogjakarta province public works.

The German NGO, GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit), was involved in the beginning of Kartamantul Joint Secretariat. By signing an agreement in 18 December 2003 between Kartamantul Joint Secretariat and GTZ, the program of Urban Quality is started in order to strengthen the legal status and capacity building of Kartamantul Joint Secretariat organization. GTZ gave technical assistance in building and enhancing the organization. GTZ also help in building documentation and communication strategy by publicizing bulletin about Kartamantul activities, themes and agenda for public information. In addition there were also a series of posters and wall newspapers which described the profile of the organization, scope of cooperation, the decision-making process, organizational development strategies and activities of the joint secretariat.

In the beginning Kartamantul Joint secretariat has technical support and finance from a GTZ project from Germany. After three years three local governments (City of Yogyakarta, Bantul reGENCY and Sleman reGENCY) prove their high commitment by funding the budget of the Kartamantul Joint Secretariat.

The community participation in piyungan landfill is scavenger's community around Piyungan Landfill. A communities group, PKK Sitimulyo, also take part to produce compost from biodegradable solid waste of Piyungan landfill.

The district that responsables for managing of Piyungan landfill is rotating. In 2006, Sleman district was responsible to manage Piyungan landfill, but the limited of personnel in Sleman public works department impede the shifting. Piyungan landfill management was re-delegated to Bantul local government.

In 2005, Kartamantul Joint secretariat has signed a memorandum of understanding with company of global solutions for waste (GSW) to process the waste into electrical energy. Processing of waste into electricity technology selection was chosen because it is kind of technology expected to reduce the volume of waste in timely and safe. This cooperation can provide benefits in the form of renewable energy from waste treatment processes. Unfortunately the

investor can not realize all stages of feasibility study in November 2006. It results issues of canceling the MOU

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#### **4.7 General Conclusion**

- Indonesia government system has changed from centralized to decentralize. This transition which was supported by Law 22/1999 gives local government more authority in provision of public service. Unfortunately much perceptions stated that Law 22/1999 removes the hierarchical relationship between provincial government and local government. The Law 32/2004 tries to correct that misperception. But in other side the Law 32/2004 is not stated clearly the role provision in conduct task of deconcentration. It gives impact of the weakness of provincial level as mediator or coordinator in implementation. Therefore while waiting the revision of Law 32/2004, the central government could be act as a mediator in implementation of landfill regional cooperation.
- The legal framework in Indonesia is enough to support the landfill regional cooperation. But it also necessary to have a local regulation that more detail in giving guidance and also integrated with the local spatial plan to accommodate landfill allocation.

- From the case study is indicated that central government has influenced to support landfill regional cooperation. It can be understand because Indonesia still in transition era from centralized to decentralize. So it is wiser by giving time and technical assistance for the local government to enhance their capacity building.

## Chapter V

### Analysis of Regional Cooperation in Solid Waste

This chapter aims to analyze the performance of regional landfill cooperation in the study case of Bulgaria, Spain and Indonesia based on the inter-municipal perspective. The analysis will indicate what factors that needs to be improved in landfill regional cooperation in Indonesia.

#### 5.1. National Administrative System

Based on Hulst and van Montfort (2009), there are several elements that can be used to analyze inter-municipal cooperation. The national administration system context compass norms, value, informal rules and traditions which indirectly are influenced intergovernmental relation and interaction.

##### 5.1.1. The number of administrative level

The coordination among the first, second and the third tiers of government are related with the implementing of regional cooperation. A system of state government for running the government is consisted of the tiers of government administration. Data from chapter 3 and chapter 4 show that Bulgaria, Spain and Indonesia are similar having 3 tiers of governmental administration.

Table 2 Number of administrative level in Bulgaria, Spain and Indonesia

<b>Bulgaria</b>	<b>Spain</b>	<b>Indonesia</b>
Parliamentary Democracy	Democratic Constitutional Monarchy	Republic
3 tiers	3 tiers	3 tiers
<ul style="list-style-type: none"> <li>▪ Central Government</li> <li>▪ District Government (obshtini)</li> <li>▪ Municipalities Government</li> </ul>	<ul style="list-style-type: none"> <li>▪ Central State</li> <li>▪ Autonomous Communities (ACs) &amp; Provinces</li> <li>▪ Municipalities (Comarcas and <i>Mancomunidades</i>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Central Government</li> <li>▪ Province Government</li> <li>▪ Municipalities &amp; Districts Government</li> </ul>

Linked to this research, the parameters of the number of administrative level not directly influence how the performance of regional cooperation is. But the number

of administrative level is a background to depict the sharing responsibilities of each tier government.

#### 5.1.2 The Distribution of Responsibilities between different tiers and the scope autonomy of local government.

Even Bulgaria, Spain and Indonesia have 3 tiers of government, but the authorities and responsibilities on each tier are different in implementing the public service on solid waste management. The further explanation can be seen in chapter 3 and 4.

The key point on this parameter is the scope responsibilities of local government. Bulgaria and Indonesia are facing similar condition, due to decentralization, 1991 for Bulgaria and 1999 for Indonesia. In previous decade, the system of governments in Bulgaria and Indonesia were centralized. Now, decentralization leads the both of central governments in these two countries to give more responsibilities and authorities to the local governments for regulating their own territory. This can be reflected by looking how Bulgaria municipalities get authority benefit to determine their budget and expenditure. The issue of decentralization in Bulgaria provides two changing circumstances. First, decentralization gives freedom and independence. Second, decentralization put municipality as a central place for activity and network.

Spain has a unique second tier government characteristic (Autonomies communities). Autonomies Communities (ACs) have the right to self-government which allows them having its own parliament, president, government, administration and Supreme Court. The autonomies communities have responsibilities in planning, public works, agriculture, and tourism. The authorities of local governments of these countries are enacted by law.

In Indonesia current condition the local governments are more independent to decide their own prioritizing sectors of development based on their resources. The local governments should take responsibilities in every development in local level and have to report it to the central government. The function of second level of government as a mediator between central government and local

government should exist. Connected to decentralization issues, Law 22/199 had weakened the role of governor as mediator. Then the law 32/2004 emerges to improve the misperception from Law 22/1999. In decentralized era, Provincial government has 2 tasks: first, the decentralization task, second, the deconcentration task (the central government uses the Governor role to do parts of central government responsibilities). Deconcentration task aims to strengthening the position of Governor which had been weakening in era of Law 22/1999. But Law 32/2004 could not explain clearly where the position of provincial government in implementing deconstruction is. The deconcentration tasks in Law 32/2004 are ambiguous. It is strongly related with why the role of provincial government in week a position is.

Table 3 The regulation describing sharing responsibility between tiers level of government in Bulgaria, Spain and Indonesia

Bulgaria	Spain	Indonesia
Regional Development Act 2004 New Development Strategy 2005	Article 148 and Article 149 on the Spanish Constitution	Law No. 22/1999 dan Law 25/1999 Act No 32, 2004

Related with this research, the local governments also have responsibilities in solid waste management. But related with topic of research; every case study describe a different condition of local governments responsibilities;

From Silistra regional landfill (Bulgaria), it can be recognized 2 facts: Firstly. The municipalities have weakness on the solid waste management plant and have limited budget in solid waste management. This conditions is one of reasons in providing regional landfill. Secondly the second level of government has weak position in supporting regional landfill. It can be recognized from the absent mediator in bridging the gap the interest of Silistra municipalities and the rest of 5 municipalities (Alfatar, Kainardzha, Dulovo, Sitovo and Glavinista).

From Uribe-Kosta Partnerships, it can be noticed 2 matters. Firstly, the responsibilities of local governments in handling in solid waste depend on the number of population that directly divided in two types of regional cooperation (*mancomunidades* and *consortia*). Secondly, the existing authority of second

level government (Autonomous Communities) is eminent factor to control the performance of regional cooperation. It can be assumed by giving reward and punishment in regional cooperation.

From Piyungan Landfill, the capacity of each of the municipalities in implementing regional landfill cooperation is quite similar. It can be seen that there is no 'one man show' in implementing landfill regional cooperation.

From Bangli landfill, it can be no said much, but the long dispute which result no collective agreement signed yet tell there might be different interest of some points in draft of agreement. This is common things in preparing regional cooperation.

### **Lessons learned of National Administrative System**

- From Silistra case, the lesson learned is "one man show" might be happened in regional cooperation. To avoid 'one man show' in achieving the goals in regional cooperation needs good communications and cooperative spirit among the involved municipalities. Good communication could be support by newsletter, well-documentation, and regular reports of meeting which can keep away misunderstanding. Cooperative spirit could be maintained by think and act regionally. So every decision should represent common interest so that no party feels disadvantaged. Besides maintain good communication, it is necessary to have a party acting as a coordinator or mediator in regional cooperation for instance the central government or provincial governments. This actor can bridge the interests of involved municipalities so that there will be cooperation based on mutual benefit.
- From Uribe-Kosta Partnerships, the lesson learned is the limitation of local responsibility in providing public service based on population. It is a good strategy to overcome the minimum capacity of local government. It could not be implemented in Indonesia due to the current regulation. In Indonesia context, based on Law 32/2004 in article 10 stated that the local governments have authority in many sectors except those sector whose belongs to central government responsibilities. For solid waste management sector including

landfill the local government should provide it. In this case, population cannot be an excuse to limit the provision of public services due to the huge population in Indonesia. In Indonesia, the scale of small cities is around 50.000 up to 100.000 people, whereas the big one is more than 500.000 people. Thus, if we concern the population number, then Indonesia will always get insufficiency in public services.

## 5.2. The Legal Framework for Regional Cooperation

### 5.2.1. The formal rules to establish and shape cooperation.

Regulation is a legal basis for encourage the implementation of regional cooperation. Based on data, Bulgaria, Spain and Indonesia have formal rules to establish Landfill regional.

Table 4 The formal regulation to support landfill regional cooperation

Bulgaria	Spain	Indonesia
<ul style="list-style-type: none"> <li>▪ Law Local Self Government and Local Administration, 2006</li> <li>▪ Act on Limitation of the Harmful Impact of Waste on the Environment, passed in 1997</li> </ul>	<ul style="list-style-type: none"> <li>▪ Local regime Act of 1985</li> <li>▪ Basic Local Law of 1995</li> <li>▪ National MSW 1985</li> </ul>	<ul style="list-style-type: none"> <li>▪ Law No 25 ,2004</li> <li>▪ Law No 32, 2004</li> <li>▪ Law no 18/2008</li> <li>▪ Government Decree no 41,2007</li> <li>▪ Government Decree no 50, 2007</li> <li>▪ Regulation of the Minister of home affairs no 69, 2007</li> </ul>

Silistra regional landfill: The Bulgaria regulations already give general guidance to support regional cooperation. It can be seen where as the regulation enlighten that some articles in regional cooperation agreement must clearly define such as : The involved parties, the objectives, the duration, the methods of financing, the rules for taking decisions and all other aspect of mutual interest. The laws also emphasize that signed agreement and approval from local council should be available in implementing regional cooperation.

Uribe-Kosta Partnerships: There is a restriction in implementing the regional cooperation. It can be known from regulation that states a regional

cooperation could be done only with the municipalities in the same authority of Autonomous Communities

Bangli landfill and Piyungan landfill: Indonesia has sufficient regulation to support regional cooperation, it can be assumed from serial regulations; from national law until decree of ministry. Law no 18 / 2008 about solid waste management. Even the solid waste management law no 18 still new , but it make the central government realize 3 matters ; (1)solid waste management is a national problem , (2) and the previous system of solid waste management is harmful for human health and the environment, therefore it needs to be improve. (3) The paradigm should replace from end of pipe to reduce of source.

Form of cooperation is determine by the scope objective the cooperation and the regulation as shown by the table below.

Table 5 Form of Cooperation

Bulgaria	Spain	Indonesia	
Silistra regional cooperation: Under municipalities of Silistra	UKSP : <i>mancomunidades</i> (Joint secretariat with Municipalities of Barrika, Gorliz, Lemoiz, Plentzia, Sopelena and Urduliz)	Piyungan : under Kartamantul Joint Secretariat with Municipalities of Jogjakarta, Sleman and Bantul	Bangli : under provincial office of public works

From the table we can see that Silistra regional cooperation is under municipalities of Silistra. It means that the regional cooperation is operated by technical unit of Silistra municipalities. Related to the perspective by Keban (2009) about the form of regional cooperation, Silistra regional case study could be defined as intergovernmental service contract because the landfill operation is merely conducted by Silistra municipality. The implementation of regional cooperation of Silistra regional landfill is single purpose which focuses only to manage solid waste landfill.

Both UKSP and Piyungan determined joint secretariats as their forms of cooperation because the cooperation has wider scopes of public services instead

of merely landfill field operation. UKSP has four provision of public service; manage solid waste, social service, consumer information and protection of the Basque language. Piyungan / Kartamantul Joint secretariat also has multi purpose; waste water management, roads, transportation, drainage and landfill. The table shows that the form of Bangli landfill regional cooperation is under provincial office of public works. The daily operation will do by provincial technical implementation units (*UPTD – Unit Pelaksana Teknis Daerah*). The form is determined based on several discussions among involved municipalities, Bali Province and technical assistance from Ministry of Public Works.

#### 5.2.2. The Permit of the establishment regional cooperation.

There are certain rules that are designed to ensure smooth running and to meet every stakeholder satisfaction. Regional cooperation should be carried out with formal agreement not with a handshake agreement. Formal agreement applies ‘play of games’ framework in the implementation regional cooperation in the field. Formal agreement is also starting point of the commitment among involved municipalities. The three case studies show that the permit of the establishment of regional cooperation of institution will influence to performance of regional cooperation in solid waste management.

Table 6 The permit of the establishment regional cooperation

<b>Silistra regional landfill</b>	<b>Uribe-Kosta Partnerships</b>	<b>Bangli and Piyungan Regional Cooperation</b>
<ul style="list-style-type: none"> <li>▪ Agreement between six municipalities and Ministry of Environment and Waters</li> <li>▪ Draft of Collective Agreement among six municipalities</li> </ul>	<p><i>Mancomunidades</i> agreement</p>	<ul style="list-style-type: none"> <li>▪ Piyungan</li> <li>▪ Decree of Jogjakarta's Governor no 175/KPTS/1995.</li> <li>▪ Collective agreement of Bantul, Region of Sleman and Jogjakarta Municipality no 583b/B/SKB/Bt/1996.310/Kep/KDH/1996.</li> <li>▪ Decree of Jogjakarta Governor no 200/KPTS/1997</li> <li>▪ Collective agreement of Regent of Bantul, Region of Sleman and Jogjakarta no 04/Perj/RT/2001 and No 38/Kep.KPH/2001, No 03/2001</li> <li>▪ Collective agreement of Regent of Bantul, Region of Sleman and Jogjakarta municipality No 152a/2004, No 02/SKB.KDH/A/2004, No 01/2004</li> <li>▪ Collective agreement of Bantul, Region of Sleman and Jogjakarta city government no 152b/2004 and No 03/SKB.KDH/2004, and No 2/2005</li> <li>▪ Bangli:</li> <li>▪ Joint agreement of Bangli district head, Gianyar district head, Klungkung district head and Karangasem district head (2008) about managing of regional landfill.</li> <li>▪ Collective agreement of Bangli district head, Gianyar district head, Klungkung district head and Karangasem district head 2008 about managing of regional landfill.</li> </ul>

The Silistra regional landfill has weakness in formal agreement. It can be implied from the absent of signed Collective Agreement among six municipalities. This gives impact to unavailability framework in financing the regional landfill. Refer to perspective of UNDP (2000) about city to city cooperation; commitment of parties which legalized by signing an agreement is one of basic fundamentals to building a good cooperation. It can be concluded that no signed agreement of silistra regional landfill is a weakness of this landfill regional cooperation which further might lead to the failure of the cooperation.

Meanwhile in Uribe-Kosta Partnerships has a legal framework which bases on *Mancomunidades* agreement.

For Indonesia context, the regional cooperation in Piyungan has sufficient a serial legal framework and collective agreements among Yogyakarta, Sleman and Bantul municipalities. In one sides it can explain why the regional cooperation in Piyungan Landfill can run smoothly. Meanwhile in the regional cooperation in Bangli already prepares the draft of collective agreement. Because the formal agreement is not signed yet, it explains why the regional cooperation is not running yet.

So, the strengthen of these regulation is shown by the explanation from the Law to the Government Regulation and to Ministers regulation.

The weakness of legal framework; First, Law 32/2004 could not explain where is the position of provincial government to do the task of deconcentration. Deconcentration is provincial task to do the responsibilities of central government in in decentralization era. The deconcentration task also include iving technical assistance and guidance in providing landfill regional cooperation. Second, the upper regulation still not integrated between supporting regional landfill cooperation and local spatial plan in accommodating the allocation of landfill.

### 5.2.3. The involvement other public authorities

From the table it shown that Silistra landfill regional cooperation involve Non Government Organization (NGO).

Table 7 The involvement other public authorities

<b>Bulgaria</b>	<b>Spain</b>	<b>Indonesia</b>	
Silistra Landfill regional cooperation:  NGO	UKSP regional cooperation :  None involment other parties	Piyungan Landfill: GTZ	Bangli Landfill :  None involvement other parties

The NGO has a function as advocate of municipalities' interest but it can not be implemented well. It can be proved by how the NGO can not force the Silistra Landfill's stakeholder sitting together to discuss how they will solve the other financial burden for sustaining the cooperation.

Uribe-Kosta Partnerships: there is no involvement of NGO, the reason is the small scope of cooperation.

Piyungan Landfill : The good performance of Piyungan Regional Landfill which is under Joint Secretariat Kartamantul can not be separated from the involvement of significant German Non-Governmental Organizations. It can be indicated by how GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) participate to develop Kartamantul Joint Secretariat for example enhancing documentation and communication strategy by publicizing bulletin, posters and wall newspapers about Kartamantul activities, Kartamantul scope of cooperation, and the decision-making process in Kartamantul Joint Secretariat.

The lesson learned : NGO involvement in Government Public service organization can give advantages. NGO is a representative of civil society. Participating of civil society is needed as independent power in development. In providing public service in education, health, public works sectors, human rights, gender and justice, the government could not move alone. Therefore, there must be cooperation between government and society. Civil society as recipients of public services knows more what they need and what they do not need. The presenting representative of civil society in development will enhance democracy culture in one country.

### **Lesson learned from Legal Framework For Regional Cooperation**

- The lesson learned from the formal rules to establish and shape cooperation is the need of existing of local regulation as a detail explanation from the national law. The three countries have national law. It is also necessary to have regulation in the lower level that not normative and more applicable. This regulation should accommodate the needs of landfill allocation as well as technical instructions for implementation. So that the overall legal framework for regional landfills must be more integrated and comprehensive. This is necessary to ensure the commitment of local authorities.

- Form the analyses of the form of regional cooperation in Bulgaria, Spain and Indonesia case studies, the lesson learn is variation of form of regional cooperation could be exist. The form of regional cooperation is determined by single or multi sector of regional cooperation objective. The form of Joint secretariat such as UKSP partnership could be considered if the desired cooperation would provide public service more than one sector which involve many related stakeholder; for instance providing water supply, road, and settlement. For the regional cooperation that has one objective, intergovernmental service contract form is more appropriate to apply. Related with the Indonesia context, the regulation in Indonesia does not determine the form of regional cooperation, therefore the implementation of regional cooperation in Indonesia could be in several forms based on the needs. In Indonesia case, the examples of joint secretariat form are Kartamantul Joint Secretariat and Maminasata Joint Secretariat. Further, the example of intergovernmental service contract/agreement form is Bantar Gebang regional landfill. The intergovernmental service contract/ agreement for landfill in Indonesia mostly is legalized under provincial office of Cleanliness and Landscaping.
- From the case studies of Bulgaria and Spain, it shows that formal agreement in regional cooperation is important to ensure the operation of regional cooperation in the field. Formal agreement will keep the objective of cooperation, the roles and the right of involved municipalities, the period of cooperation, the methods of financing, the rules for taking decisions and all other aspect of mutual interest.

### **5.3 Supporting Upper Level Government**

Incentives, reward and punishment are part of tools to induce the regional cooperation. The implementing of incentive, reward and punishment in regional cooperation has different reason.

Silsitra Landfill: For comply the EU Directive of landfill in short time, Incentive from EU cohesion is reasonable things to finance the reconstruction of existing

Silistra Landfill. Reconstruction of silistra landfill is part of programs in Silistra regional landfill cooperation.

Uribe-Kosta Partnerships: In Spain reward and punishment are applied into performance of regional cooperation. Rewards are usually given if the cooperation achieves good results. Reward is given in the form of financial support and a political incentive, for example broadening the scope of cooperation. Meanwhile punishment will be applied if the regional cooperation runs inappropriate way. Punishment could be form as a diminished of autonomy and delegated of authority. This research could not explain further due to information limitation. But it is a good motivation from government to stimulate regional cooperation. The data implicitly that Spain local government has prepared the incentive in local government budget.

Piyungan Landfill and Bangli landfill : The incentives comes from central government in order to improve the condition of landfill from open dumping to sanitary landfill.

### **Lesson learned from Supporting Upper Level Government**

Reward and punishment which is implemented in Uribe-Kosta Patnership as the explanation in chapter 3 could be a good tool to keep the landfill regional cooperation in the right track. But for Indonesia context, it can not be implemented soon. Indonesia, which has recently experienced a political change from centralized to decentralized, punishment and reward method could not be implemented in the short term. Firstly, local governments have limited capacity in finances, human resources and the regulation to performance public service in good way. Secondly, Issues of regional cooperation in the management of solid waste has begun few years so there is limited development of research, legal basis, and appropriate forms of regional cooperation. Thirdly, regional cooperation is voluntary not obligation. Therefore in Indonesia context, the incentive and technical incentive are more appropriate to stimulate regional cooperation especially in solid waste management sector.

- For Indonesia context, the approach of landfill regional cooperation is mixed between top down and bottom up. The key reason is decentralization condition. Now the local governments has authority to provide landfill, with regional cooperation hopefully they able to operate sanitary landfill. Unfortunately the factual condition in the field is inversely. First, the local government has limited financial to provide sanitary landfill which costly. The financial budget of local government to manage the solid waste is no more than 3% from total financial budget of local government in all sectors. Meanwhile the revenue from solid waste management retribution could not cover the operation of landfill. Second, the local government has limited resources of human to provide sanitary landfill. As a result many strategic positions in local government office delegate to the person whose not relevant education background. It also happens in local government office carrying out solid waste management sector. Many head of sub division of solid waste management operation has no background education/less knowledge about environmental engineering or civil engineering related with solid waste management. Therefore the involvement of central government in providing regional landfill cooperation is needed. The central government could give incentives and technical assistance in establishing regional landfill. It is also relevant with decentralization context in Indonesia which there is a transition responsibility from central government to local government in the form of financial budget and technical assistance. So the approach of landfill regional cooperation could not only bottom up or just top down. It should be mixed.

## **Chapter VI**

### **Conclusion and Recommendation**

#### **6.1 Conclusion**

The existence of solid waste still likely is considered as something that is not beneficial and detrimental. Solid waste strongly related with the growth of city. The more the number of population increases in one area, the more the amount of solid waste will be generated. Landfill which is a place to treat the solid waste in the last ten years in many cities in Indonesia has become unsolved problems. Most landfill problems in Indonesia happened because the landfill operation and maintenance are not fulfilling the requirement. For instance, the practice of open dump system where the facility of landfill is limited and the waste is not covered by soil in periodic time

Sanitary landfill is more recommended to practice in landfill because it safer for the environment. However, it could not be implemented soon by local government. Sanitary landfill is costly and need high technology. Meanwhile the resource and financial of local government are limited. To overcome the problem the central government triggers the local government to do regional landfill cooperation. Regional landfill cooperation is cooperation between two or more local governments to operate one landfill together. In Indonesia, under decentralization era, establishing regional landfill is not an easy task. Decentralization has restructured local government authority and responsibility. In one side it leads local government to be more innovative in provision of public service such as solid waste management but in other side it triggers issue of local egoism. Local egoism is a phenomenon in Indonesia where the local government or municipalities consider themselves as a kingdom of authority which in turn makes regional cooperation difficult to develop. This study aims to give recommendations for improvement of landfill regional cooperation in Indonesia by taking some lesson learned from implementation landfill regional cooperation

in Bulgaria and Spain. The data of International case studies and Indonesia case study just rely on international articles and relevant web sites instead of primary data. It makes the data are very limited. There are no updated data telling about how the performance of regional cooperation from Silistra landfill and Uribe-Kosta Partnerships in current condition, how the cooperation in the organization works, how the detail of financial sharing in the cooperation and how the detail of the improvement of physical landfill. Therefore it makes the study only observed based on few parts of inter-municipal cooperation perspectives.

In Chapter 2, the conceptual frameworks describe some parameter based on namely; number of administrative levels, the responsibilities distribution between the different tiers government, the scope and autonomy of local government and the number and size of municipalities.

Thus, the conclusions for the International case study are:

1. Silistra case study showed that landfill cooperation in Bulgaria has more weakness than strengthen, such as;
  - National Administrative System: the municipalities have limited plan in conducting landfill regional cooperation, no innovation to finance the landfill cooperation, no mutual trust among involved municipalities, the second level of government can not act as mediator, from the absent mediator in bridging the gap the interest of Silistra municipalities and the rest of 5 municipalities.
  - Legal framework for the cooperation: no signed Collective Agreement among six municipalities. Thirdly, from the involvement other public authorities: the NGO can not do its function as an advocate. Fourth, from supporting upper level government, EU cohesion through ISPA Program is important incentive for landfill regional cooperation.
2. Uribe-Kosta Partnerships case study showed that regional cooperation has strengthen and weakness.

The Strength:

- National Administrative System: second tier government (Autonomies communities) has strong position to controlling regional cooperation.

The scope of partnership to accommodate the public service is small (related with the total population).

- Supporting Upper Level Government : there is reward and punishment that are applied in the implementation of regional cooperation

The Weakness:

- Legal framework: there is a restriction partnership in implementing the regional cooperation.
- The involvement other public authorities: there is no involvement of NGO Supporting Upper Level Government.

The conclusion for Indonesia case study will explain based on the parameter as below:

1. In Indonesia how national administrative system support the landfill regional cooperation can be observed by how the role of provincial government and how the role of municipalities. As stated in Chapter 5, Law 22/1999 has strengthened the position of municipalities and district government by giving them more authority, but at the same time it has weakened the position of the provincial government (municipalities and district). Therefore, euphoria of local government (municipalities and district) as a little kingdom spread out in all over Indonesia. The Law 32/2004 comes up to revise the misperception of law 22/1999. But unfortunately there are still ambiguous things in Law 32/2004 about to what extent the role of provincial government to do deconcentration task is. This matter result that the provincial government role still weak. It will impact indirectly to landfill regional cooperation, because solid waste management is not only decentralization task but also deconcentration task.
2. Landfill regional cooperation needs legal framework. In Indonesia, the analyses on chapter 5 shows that the formal rules to establish and shape regional cooperation in Indonesia are sufficient. The strength of these rules is shown by the explanation from the Law to the Government Regulation and to Ministers regulation. The weakness of legal framework is the laws to revise

Law 32/2004 still no exist. The permit of regional cooperation is different in each region. It depends on the process of agreement with each of the municipalities involved. In case of Kartamantul Joint secretariat, the consensus process gradually took place 8 years from 1995 until 2004.

3. The involvement other public authorities in landfill regional cooperation is need it. For example, the involvement of the Non-Government Organization will give good impact such sharing knowledge and sharing issues that will open more innovation in regional cooperation.
4. In Indonesia, the context of the system of upper level government still depends on incentive. It can be understandable because the policy of landfill regional cooperation is a quite a new. Therefore rather giving punishment and award, incentive is appropriate to enhance spirit of landfill regional cooperation.

Based on chapter of analyses, the right approach for landfill regional cooperation in Indonesia is mixed between top down and bottom up.

## **6.2 Recommendations**

Based on strengths and weakness of lesson learned from international case studies, this research suggest some recommendations for landfill regional cooperation in Indonesia

- The actor of government act as mediator must be available. The role of second tier government (Provincial Government) should be clear in National law and should be step up as a mediator in landfill regional cooperation among municipalities
- The more detail local or lower regulation should accommodate the regional landfill cooperation and should be integrated with local spatial plain in regional landfill allocation.
- Central government could give incentive by tax reduction for the hard infrastructure and facilities in landfill construction for example lower tax of bulldozer.

- Transition from centralized to decentralized needs more appropriate time. When the capacity building of local government has ready to do regional cooperation, the central government should reduce its involvement the landfill regional cooperation. So it will make the landfill regional cooperation more independent from any intervention.
  
- Reflection to this research
  - The way to choose case studies from European country is limited. This research based on secondary data, so there are limitations of data. Meanwhile it is very difficult to find regional cooperation case study particularly in landfill cooperation. Most of developed European countries already move to utilize incinerator rather than to utilize landfill in treating the solid waste. It is related with restriction from EU directive to minimize landfill. So it is recommended to have more study and literature to do this research.
  - The theoretical framework and the parameters in this research are not full enough to explore what can make the regional cooperation in landfill run smooth. There are a lot theoretical framework and parameter to explore how the landfill regional cooperation performance such as: how is commitment of involved municipalities, how is community participation in the project, and how are the elements of solid waste management in supporting landfill regional cooperation and also how the institution aspects could support the landfill regional cooperation.
  - The research step is to narrow due to limitation of data.
  - Therefore for further researcher wants to do this study, should have more literature and data to do this analyze.

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