GREEN OPEN SPACE MANAGEMENT: MALANG CASE
(LESSON LEARNED FROM EDINBURGH – SCOTLAND)

THESIS
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Abstract

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The current issue in Indonesia related to the use of space in cities is the limitation of green open spaces. Many cities were predicted that number of green open spaces will be decreased, especially big cities like Jakarta, Surabaya, and Bandung. The number of urbanized-areas in every city has been increased, this condition encourages their physical development to make their city become attractive and sophisticated, which sometimes put the environmental behind the economic consideration. The problem of limitation of green open space is faced not only by big cities, but also by small cities such as Malang. The problem of green open space in Malang is centred in the failure of green open space management by local government. The regulation of spatial planning including green open space planning is not consistently followed by its implementations.

This research analyses green open space management, particularly in Malang, to find the gap between open space's policy and its implementation, with also elaborating green open space management in Edinburgh. By this research, we can comprehend the factors causing failure of Malang's green open space management. Therefore, this study will take the lesson from the Edinburgh experiences will be specific interest to green open space management is necessary to promote green open space. In practice, this study also expected to provide a lesson on how should green open space policy be developed in order to be more well implemented in Malang.

Keywords: *green open space, green space management, Malang, Edinburgh,*

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Chapter 1
Introduction

This chapter describes the basic idea of the research in green open space management in Malang, Indonesia. This study begins reviewing the background which describes the problem of green open space in Malang as the starting point Then it poses the research problems, definition problems, objectives and research questions, scopes. To answer the research questions, this research serves also a research methodology. Finally this chapter will be closed by describing the structure of the research.

1.1 Background

The world is becoming increasingly urban area. McIntyre (cited by Vli-Pelkonen & Niemela, 2005) estimates that in 2010, the majority of the world's human population will live in urban areas. Due to fast urbanization, natural environmental are increasingly replaced by urban development. Urbanization increases the distance between people and natural space. To encounter these trends, it is important to make sufficient provision of quantity green open space within urban areas.

Urban green open spaces are an important component of urban ecosystem, which have significant ecological, social and economic functions (Lütz and Bastian, 2002). Green open space has significant ecosystem services, which are defined as the benefits human population derives, directly or indirectly, from ecosystem functions. Green open space improves the urban environment, contributes to public health and increases the quality of life of urban citizens (Ahern, 1991 cited in Steelman and Hess, 2007). Also, green space such as public parks, natural areas and golf course can have a significant effect on sale price of houses in close proximity to those resources (Luttik, 2000).

In developed country, they concern in urban green space problems, such as in Canada and the US, as well as in Europe, there has been a growing recognition among community groups and environmental organizations that concern for greening city environments (Kühn, 2003). Besides that, developing countries generally have failed to cover challenges associated with growing populations from diminishing land areas of declining quality, urbanization of agriculture lands, loss of water storage capacity and biodiversity (Ryan and Wayupard et al., 2004).

Based on Levent and Nijkamp, 2004, there are 6 European's cities that has categorizes high performance in success level regarding planning and management of urban green spaces. Edinburgh constitutes as one of the cities that has a good performance in planning and management of green open space. The success of green strategy of Edinburgh is not only in good planning and management, but also in the implementation regarding with enhancing the wide of green open space (The City of Edinburgh Council, 2006). In fact, all green space including open space and nature areas is 38 % of city areas (Scottish Executive Publications, 1996). Besides, Edinburgh has currently increased public park provision about 73 hectares areas. The City of Edinburgh Council has been increases Craigmillar Castle Park as a city landmark.

The City of Edinburgh also has two parks become the first in Scotland to receive the prestigious Green Flag Award[1]. There are Braid Burn Valley Park and Harrison Park. It means all elements of Edinburgh committed with providing environmental sustainable and enhancing high quality parks, not only government but also community. It is good example to learn the management, maintenance and development of green spaces.

Related to Indonesian context, Indonesia as developing country, nowadays, is characterized by economic growth and rapid urbanization, with associated social disparities, political unrest, massive natural resource depletion and major environmental problems. Growing populations and increased land-consumptive development have threatened the existences of the number of green space areas with its services in many urban and suburbanizing settings. Porter, 1997, states that protecting open space is one alternative for addressing some problems posed by growth, urbanization, and suburbanization. But, it is not central government responsibility. Green open space is local government problems, through the use of planning, zoning, regulation, and incentives (Bengtson, 2004). Nevertheless, green space management and spatial plans are still not integrated well.

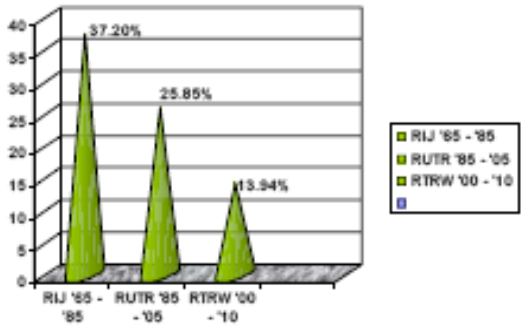
The current issue in Indonesia[2] related to the use of space in cities is the limitation of green open spaces. Many cities were predicted that number of green open spaces will be decreased, especially big cities like Jakarta, Surabaya, and Bandung. The number of urbanized-areas in every city has been increased, this condition encourages their physical development to make their city become attractive and sophisticated, which sometimes put the environmental behind the economic consideration.

Based on Hakim, 2004, Jakarta, the capital of Indonesia, is facing with limitation green open spaces. From the Jakarta master plan 1965-1985, Jakarta's areas were targeted as green open space about 37.2%, but in Jakarta's General Plan of Area Arrangement (RUTR) 1985-2005 the target was reduced to 25.85%. In Jakarta Regional Plan of Area Arrangement (RTRW) 2000-2010 the target was decreased to 13.94%. In 2004, green open space was only 9% or 50 km^2. He was assuming that Jakarta's green open space area decrease through the years both in quantity and quality.

[1] The Green Flag Award is national standard for parks and green spaces in England and Wales. The award scheme began 1996 as a means of recognizing and rewarding the best green spaces in the country. It was also seen as a way of encouraging to achieve the same high environmental standards, creating a benchmark of excellence in recreational green areas (http://www.greenflagaward.org.uk) last updated in August 10, 2007

[2] The issue was taken based on strategic issue analysis by Ministry of Public Work about "The Task of Public Work Department in promoting open space in urban areas" (http://www.pu.go.id/Publik/Satminkal/Sekjen/Pustra/Index.asp?dirs=Issu_070118101420.htm&no=10) last updated in March 16th 2007

Figure 1. Green open space plan of Jakarta from 1965 -2010



Source: Hakim, 2004

Surabaya, Jogjakarta and Bandung also dealt with the limitation of green open space. Based on Hakim, 2004, Surabaya green open space set by region administration since 1992 was 20-30%, but the existing condition has shown less than 10%. In Jogjakarta, the urban green open space is 1.6% of the city's area. Compared to the two cities, Bandung have a higher value is about 15% of whole area.

The problem of limitation of green open space is faced not only by big cities, but also by small cities such as Malang. In fact, built area in Malang until 2007 is more than 60% of whole area. In contrary, the existing of green open space is only 2.89% (Purnawan, 2007[3]). While according to Act no. 26/2007 on Spatial Plan, the provision of green space in certain region should be 30 % of the area. It can be seen that the recent condition of green space in Malang has been still far from the required standard.

1.2 Research Problem

There are four main issues in implementing the construction green open space in Indonesia (Bureau of Population and Environmental Guidance (BLKH) cited in Hakim et al., 2004) states:

1. Green open space continues to decrease due to rapid city development.
2. Damage found in the city's green open space due to function shifts (city parks become hotels, fuel station, bus terminal)
3. The community's low level of awareness and participation in caring for community parks.
4. High land value in cities such that providing area to function as green open space is cost consuming on the other hand it usually is more profitable in land area in the city is utilize for high economic activities.

The concept of spatial planning in Malang is called Regional Plan of Area Arrangement (RTRW) 2001-2011 that includes planning for green open spaces, facilities, infrastructures, economics, etc. The implementations should be based on RTRW, but in the

[3] The issue was taken based on interview Mr. Purnawan D. Negara as a leader of The Indonesian Forum for Environment branch East Java with tempointeraktif.com. (http://www.tempointeraktif.com/hg/nusa/jawamadura/2007/07/18/brk,20070718-103939,id.html) last updated in July 19th 2007

fact there are some changes. For instance, green open space changed to residential or mall due to economic and political pressures. That is why green open space continues decrease in Malang. There are some cases of land use change in Malang during 1994 until 2007 that case as fact of the decreasing green open space, as shown by the table below.

Table 1.1 Some Cases of Land Use Changes in Malang, 1979 - 2007

No.	Existing	Function	Function Changes	Area (m2)
1	Indrokilo Park (*Taman Indrokilo)*[4]	Park and reservoir	Housing	7,900
2	Akademi Penyuluh Pertanian (*School of Agriculture Training)*[5]	Agriculture education and research (school), reservoir	Housing and Mall (MATOS)	373,430
3	Kunir Park (*Taman Kunir)*[6]	City park	Office	210
4	Outer Gajayana Stadium (*Stadion Luar Gajayana*)[7]	Sport	Mall, hotel, office (MOG)	16,500

Source: Arwinanto, 2007

Hakim (2004) argued that competitiveness for area utilization in cities are significantly influenced by market mechanism, resulting in function change of green open space into housing area, stores, hotel, gas station, restaurant, etc, lack of control by government authorities, human resources in relevance government institution. In the other perspectives, government usually made adjustment in their spatial planning which is use the change of green open space in end of planning year as starting calculation for next planning. It means the government indirectly tolerated due to limitation green open space. The competitiveness area in Malang explained by Purnawan, 2007 [8] that development area

[4] Indrokilo Park (*Taman Indrokilo*) was previously a sport activities center, youth creativity, culture and art in Malang Municipality, and also functions as a reservoir. The land status of Indrokilo Park is the municipality's assets. The change of utilization rights and possession rights of this asset must be accredited by Minister of Interior Affair and its changing was based on the Regulation of Ministry of Interior Affair No. 4 year 1979.

[5] Akademi Penyuluh Pertanian (APP) is located on two locations in different sub-district that is Penanggungan sub-district (9.2 ha) and Bareng Sub-district (28 ha). Its land status belongs to Department of Agriculture based on Built-utilize Certificate issued by National Land Management of Malang Municipality. But recently, housing development in Bareng sub-district is halted. Meanwhile, Malang Town Square (Matos) – a shopping center – was built in Penanggungan sub-district even though its original location as stated in Urban Spatial Planning of Malang 2001-2011 is for education zone.

[6] Kunir Park *(Taman Kunir)* is a Municipality's asset, but its maintenance is conducted by community. Municipality intends to build an office for Oro-oro Dowo sub-district in this park. The site for this office is estimated approximately 20% of total park's area about 210 m^2 of 1135 m^2.

[7] The Gajayana Stadium areas in Malang will be developed as Malang Olympic Garden (MOG). This area will become a sport complex, shopping center, and hotel. The development of MOG will take place on a site approximately 8.4 hectares in which 16,500 m2 will be allocated for shopping center, hotel, offices, and shops. 13,500 m2 of the site will be allocated for parking area and supporting facilities, and the rest for sport facilities.

[8] The issue was taken based on interview Mr. Purnawan D. Negara as a leader of The Indonesian Forum for Environment branch East Java with tempointeraktif.com. (http://www.tempointeraktif.com/hg/nusa/jawamadura/2007/07/18/brk,20070718-103939,id.html) last updated in July 19th 2007

increase more than 60% of whole area, but the existing of green open space is just 2,89%of Malang area.

Based on Green Open Space Master Plan of Malang, 2006, the total area of green open space in Malang is 1.303.192 m^2. It is not a good sign for urban green open management in Malang because the amount of green open space is less than the standard. It means Malang has violated the prevailing regulations.

Table 1.2 The total of green open space in Malang, 2005

No	District	Area of district (Ha)	Green Open Space (Ha)				Total (Ha)
			Green ways	City Parks	Park in housing area	Others	
1	Klojen	883,00	2,064	25,972	6,318	9,846	44,199
2	Blimbing	1.776,65	1,059	0,408	1,631	16,546	19,643
3	Sukun	2.096,57	1,247	7,786	1,427	27,694	38,154
4	Lowokwaru	2.260,00	2,648	0,779	0,994	10,787	15,201
5	Kedungkandang	3.989,44	0,890	1,667	2,773	7,793	13,123
		11.005,66	7,907	36,604	13,143	72,665	**130,319**

Source: Green Open Space Master Plan of Malang, 2006

The problem in Malang's green open space management as like other cities such as Jakarta is that the institution and the planning are not well integrated'. The management of green open space has been done inefficiently and ineffectively in obtaining the targeted quality and quantity of green open space. Besides, there is also lack of participation of all stakeholders. As mentioned by the table of some cases above, it does prove that spatial planning sometimes pushes the green open space changes to economics activities.

1.3 Problem definition

The problem of green open space in Malang is centred in the failure of green open space management by local government. The regulation of spatial planning including green open space planning is not consistently followed by its implementations, as mentioned at table 1.1 above. This results in the continuous decreasing of green open space. It reflects one of the failures of local government to fulfil the standard of urban open green space declared in Act no. 26 Year 2007 about Spatial Planning.

This research will explain about some factors which result in the failure of Malang Municipality to manage its green open space. Furthermore, this will also study the successful of another city in managing and improving green open space. It includes identification of factors that support the improvement of the capabilities of green open space. By learning from another city, Malang can take valuable lessons and formulate suitable step to be adapted which will be based on its specific characteristics.

1.4 Objective and Research Questions

The objective of this research is to find the gap between green open space's policy in Malang and the implementation. This study has drawn the factors causing failure of

Malang's green open space management. Moreover, the lessons learn from the Edinburgh experiences will be specific interest to green open space management is necessary to promote green open space. In practice, this study also expected to provide a lesson on how should green open space policy be developed in order to be more well implemented in Malang.

In order to achieve that objective, this study develops some research questions as follows:

1. *What are the causes of the failure of green open space management in Malang?*
   This research gives explanation about the condition of green open space management in Indonesia, particularly Malang. Firstly, this research will give picture how the green open space management being developed. Secondly, I will give picture the five components of green open space policy, which are goals, concepts, structure, institutions, and instruments of the system. Then, this study will relate the five components of green open space policy with the implementation in Malang. As a result, this study can get the limitation and challenges that causing unsuccessful green open space management in Malang.
2. *What can be learned from successful city for Malang?*
   After discussing the implementation of green open space in Malang and successful city, I make comparative analysis between them. The elements to be compared and analyzed are based on the policy behind green open space management that influence the successful and unsuccessful in promoting green open space management.
3. *How to enhance the capability in managing green open space in Malang?*
   It will elaborate what is/are the experience(s) that can be transferred as lesson learned for Malang in promoting green open space. Then, this study will also formulate some strategy recommendations to enhance the capability of green open space management in Malang by considering the experience from successful city that are possible to be implemented in Indonesia.

1.5 Scopes

This research discusses on green open space with focuses on identify the general pattern of management of green open space development by considering policy and institutional arrangement. This elaboration gives more attention to land use changes and it is related with limitation open space. Basically, land use system is the glue that holds many aspects, including open space. This is also related to the fact that most of policies and directives in field land use planning in Indonesia should be promote green open space. However, it is also important to describe the actor who plays in green open space management in Malang. It is not only carried-out by government but also community and private sector.

1.6 Methodology

This research is developed into several methodological steps as follows:

1. *Literature review*
   This study reviews literature to build theoretical base concerning theoretical development of green open space management; and empirical findings or international

experiences mainly to answer the second of research question. This review focuses two significant sources, which are journal articles and selected books.

An extensive literature review is also used as input for analysis. This study uses indirect data and information abstracted from articles, books, internet, and other relevant publications. Therefore, it is not necessary to conduct survey or interview because most of actual data can also be searched from secondary sources. The other explanation is my case study, which is Malang, is currently too far away from country where I research.

2. *Comparative Analysis*

   The previous steps supposedly provide input for analysing. After the data collection, it is important to compare the element and characteristics of policy and its implementation in green open space management transfer between successful city and Malang as case study to get to know what policies or concepts that might be transferred and what condition and adjustments are required in order to adopt the policies from the lending city. The analysis in this research is conducted using comparative analysis method.

3. *Explanation*

   Finally, I propose some strategy recommendations to enhance the green open space management in Malang by considering the experiences from successful city that might be implemented in Indonesia, and considering the limitations and challenges that might be encountered.

The diagram of research methodology can be drawn in figure 2.

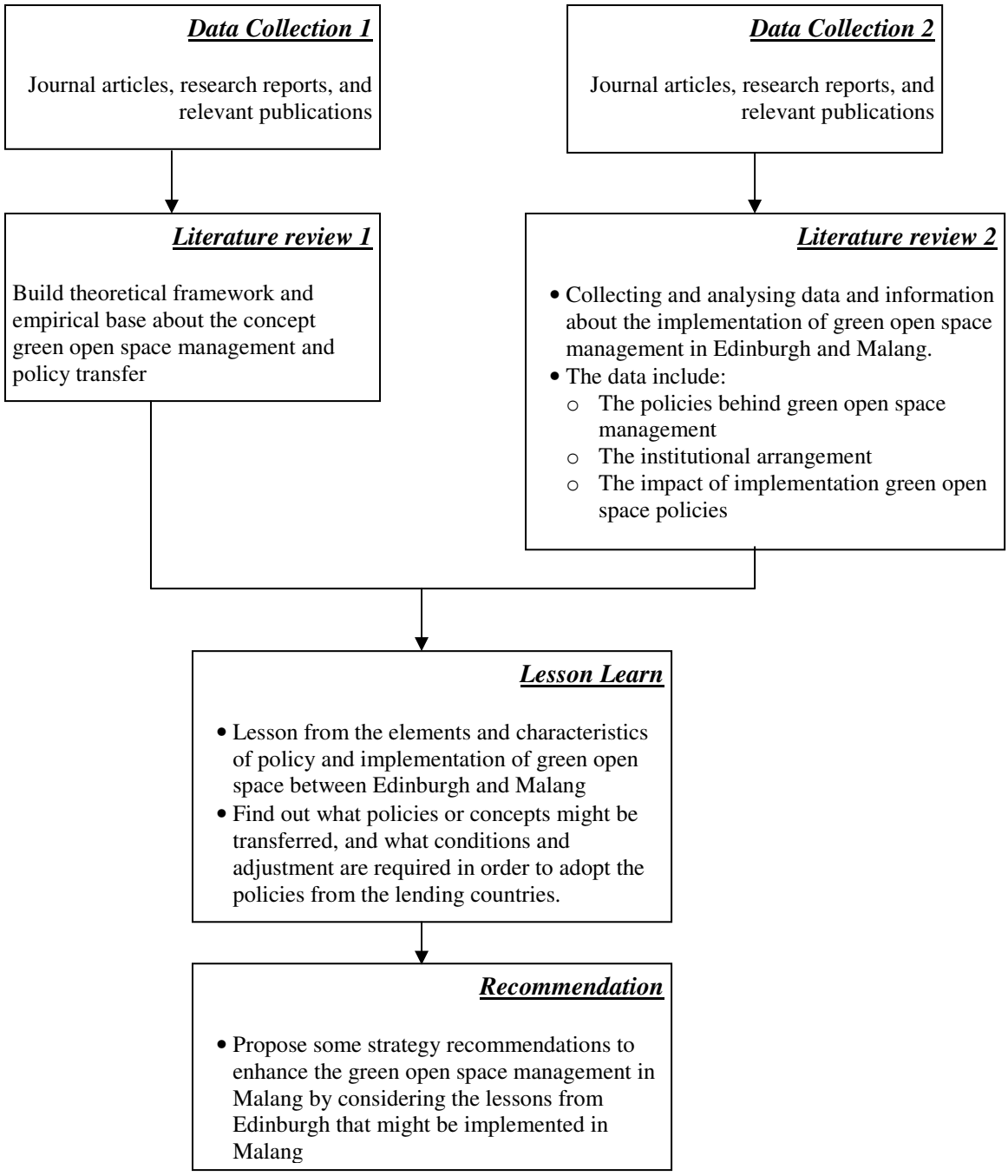


Figure 1.2 Research methodology

Report Structure

Research report is divided into six chapters. Content of each chapter can be described as follows:

Chapter 1 : Introduction

This chapter consists of background, research problems, objective, research questions, scopes, research methodology, and report structure. It describes the

background of the study as the starting point of conducting research about green open space management policy.

Chapter 2 : Theoretical Framework
This chapter provides theoretical and empirical bases comprise concepts of green open space in general and its sustainability. Furthermore, the concepts of policy transfer to analyse the possibility of applying policy from other country.

Chapter 3 : Green Open Space Management of Edinburgh as Lending City and Malang as Borrowing City
This chapter focuses on describing green open space management in Malang and Edinburgh, problem, policy, institutional arrangement and its implementation.

Chapter 4 : Comparative Analysis
This chapter consists of comparative analyses between Edinburgh and Malang. The elements to be compared are among others: motivation, process, and implementation strategy of green open space, the changing roles of green open space management, and the institutional arrangements. In addition, the impacts of the transfer are also evaluated.

Chapter 5 : Conclusion and Recommendation
The last chapter consists of research findings and recommendation for Malang in order to promote sustainable green open space management.

Relationship among chapters is described in figure 1.3 .

Thesis Flow Diagram

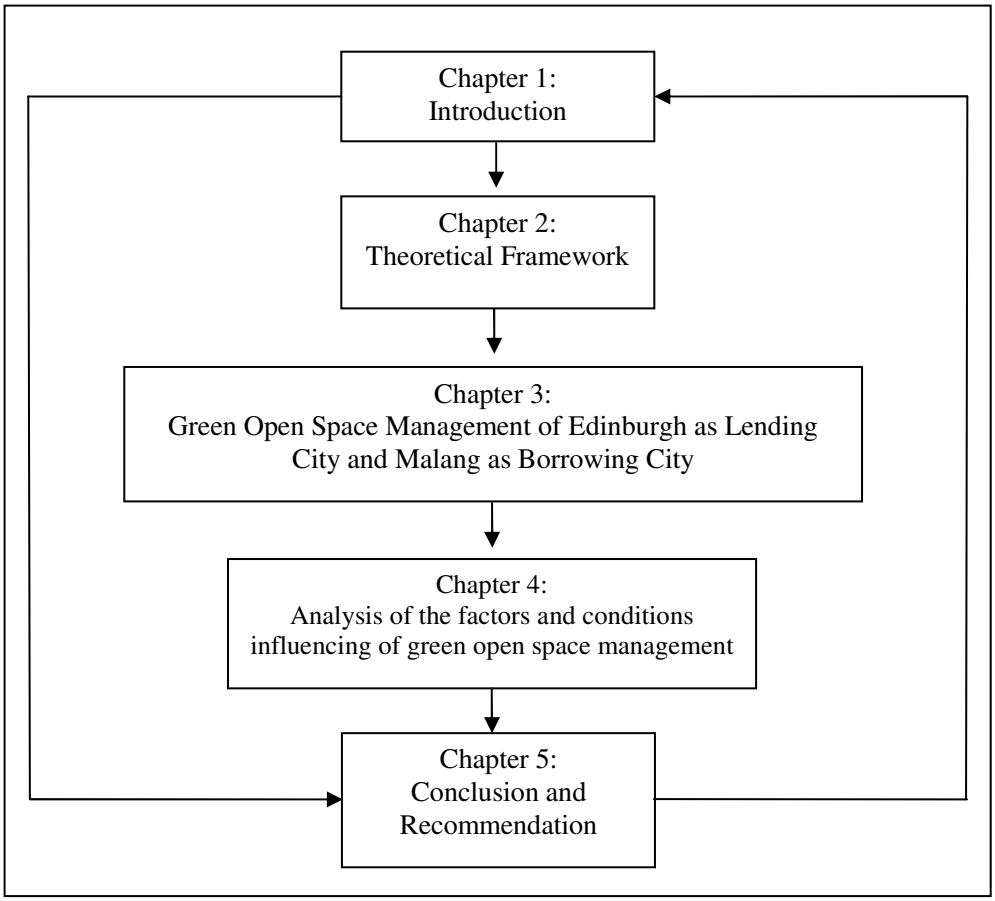


Figure 1.3 Thesis Flow Diagram

Chapter 2
Green Space Management

This chapter provides theoretical and empirical bases comprise concepts of green open space management in general. Also provides the theoretical of lesson learned.

2.1. Open Space and Green Space

Space is important and gives significant contribution to the quality of living condition. In urban area, the availability of space to accommodate all urban activities becomes problem because the needs of space for all activities are increasing. The inevitable increasing need for better quality of life of its inhabitant has encouraged complicated change in the whole aspects of city's living. City space, without exception, obviously gets direct impact from city's change. The role of city space as a 'container' of city activities make it always be adjusted to the development needs (Widyastuti, 2005).

Urban open spaces are vital part of urban landscape with its own specific set of function. Open space means undeveloped land areas that have important ecological functions, natural resources, or cultural resources that are worthy of conservation and protection. Such areas may contain, but are not limited to, forests, farmland, old fields, floodplains, wetlands, and shore lands. Open space can also encompass scenic view, recreational areas, and historic sites. Open spaces (natural or man made) contribute to the quality of life in many ways (Burke and Ewan, 1999). Besides important environmental benefit, these provide social psychological services, which are critical for liveability of the city and well being of urbanites (Chiesura, 2004). Thompson (2002) sees open spaces in cities as places to celebrate cultural diversity, to engage with natural processes and to conserve memories.

The definition of open spaces evolved in time embracing all types of opportunities to suit the varying outdoor needs of human beings and needs of plant and animal species. Nowadays, the concept of open space in complex urban is not limited only to the urban parks and preserves but also non park-non natural-places. Public space such as streets, school yards, outdoor sport complexes, cemeteries, and public squares are important open spaces (Hall, 1998). These areas are open to full spectrum of the society and their sound planning and design make them more attractive. Baines (1999) recognizes the value in waste lots, the derelict, gap sites awaiting redevelopment but not currently managed. Non natural places such as railways, highways right of ways, canals have functional values. According to Thompson (2002) these areas are indeterminate areas of open space and these function specific spaces are as much necessary as decorative parks. Ecologically sound planning and design of such spaces aids in establishing ecological networks (Cook, 2000, Cook 2002) in the urban area. Chiesura (2004) suggests taking into account the variability in the open space types to fulfil the needs and expectation of all the segments of the population. Accordingly the understanding of the characteristics of different types of open spaces in an urban area may guide local authorities in the long term planning process. The assessment of change in open space system is equally important to take measures in maintaining liveable cities.

Based on Swanwic, Dunnet and Woolley, 2004, states that open space is used with a number of often imprecise meanings including reference to some part of external

environment that is the space outside buildings in urban areas. The definition of urban space can be drawn below

All	Amenity	Recreation green space	Parks and gardens

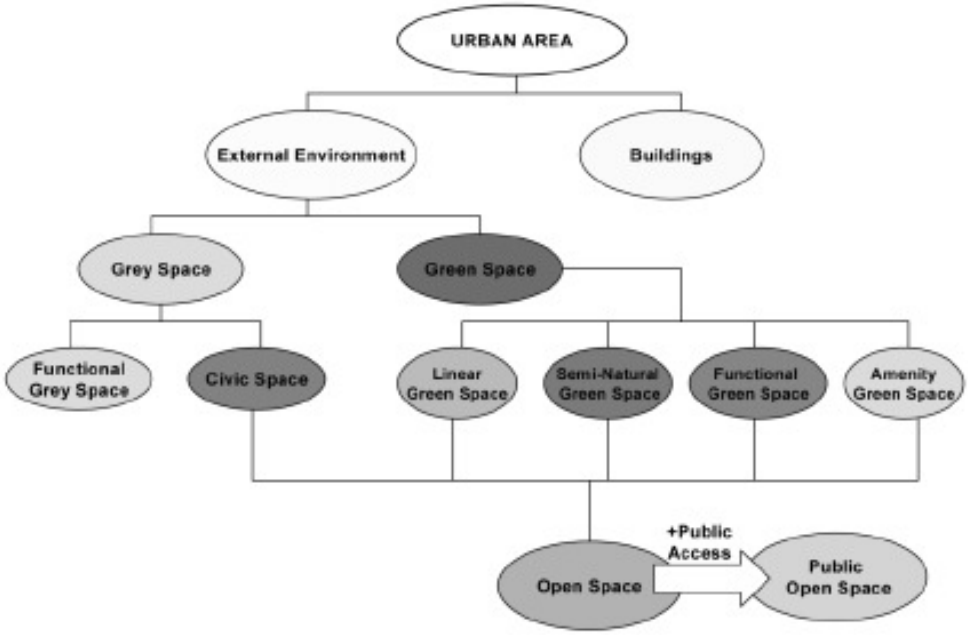


Fig. 2.1 Definitions of urban spaces
Source: Swanwic, Dunnet and Woolley, 2004

2.2. Defining Green Open Space

Urban green space can be defined as land that consists predominantly of unsealed, permeable, soft surfaces such as soil, grass, etc and it is an umbrella term for all such areas whether or not they are publicly accessible or publicly managed (DTLR, 2002). In briefly definition, urban green spaces can be defined as an umbrella for all areas of land cover. In context of utilization green open space has a broader definition than just an area with green open space can be classified both according to its location and function. Based its location green open space can be coastal open space, river hood plain, greenways and open area at the end of airplane runways in airports. According to Tambunan, 1994 in Hakim, 2004, city's green open space covers:

a. Macro green open space such as agricultural zone, fishery, forest conversation, city forest, and safety area at the end of airplane's runways
b. Medium green open space such as city parks, sport facility, public cemetery
c. Micro green open space covering all open space area in communities, provided for public facility like playground Community Park and sporting courts/field.

A potential typology of green space (Swanwic, Dunnet and Woolley, 2004) can be seen at table 2.1 below:

Table 2.1 Main types of green space

			Informal recreation areas
			Outdoor sport areas
			Play area
		Incidental green space	Housing green space
			Other incidental space
		Private green space	Domestic gardens
	Functional Green Space	Productive green space	Remnant farmland
			City farms
			Allotment
		Burial Grounds	Cemeteries
			Churchyards
		Institutional Grounds	School grounds (including school farms and growing areas)
			Other institutions grounds
	Semi-natural habitats	Wetland	Open/running water
			Marsh, fen
		Woodland	Deciduous woodland
			Coniferous woodland
			Mixed woodland
		Other Habitats	Moor/heath
			Grassland
			Disturbed ground
	Linear green space		River and Canal banks
			Transport corridors (road, rail, cycle ways and walking routes)
			Other linier features (e.g. cliffs)

Source: Swanwic, Dunnet and Woolley, 2004

2.3. The importance and benefits of green space

Green space is useful for quality of living in urban area. Minimizing air pollution, making beautiful landscape (aesthetics landscape), providing common space (recreation area) for urban people, etc are some of benefits of green space. DLTR (2002) explained that there are social, environmental, and economics benefits from the existences of green space (see Table 2.2). Those benefits of green space sometimes even frequently are ignored to support urban development. Protecting green space area from the threats of other interests or demands becomes important effort to support urban's condition still good for living.

Table 2.2
The Benefits of (Urban) Green Space

Aspects of Urban Green Space's Benefits		
Social	Environmental	Economics
▪ Contributes significantly to social inclusion because it is free and access is available to all ▪ Provides neutral ground available to all sectors of society and can become the focus of community spirit through the many and varied	▪ Contributions to maintaining biodiversity through the conservation and enhancement of the distinctive range of urban habitats ▪ Contributions to landscape and cultural heritage ▪ Amelioration of the physical	▪ On site benefits such as direct employment and revenue generation ▪ Less tangible off-benefits, including effects on nearby property prices, contributing to attracting and retaining business in an area and an important role in attracting

opportunities for social interactions ▪ Contributes to child development through scope for outdoor, energetic and imaginative play ▪ Offers numerous educational opportunities	urban environment by reducing pollution, moderating the extremes of urban climate, contributions to cost-effective sustainable urban drainage systems and some influence as sinks for carbon dioxide ▪ Provision of opportunities to demonstrate sustainable management practices	tourists.

Demands of space in urban area give impact to the existences of green space area. Decreasing of green open space in urban area is caused by land limitation and the changing of city's spatial pattern marked by development of housing, industrial park, infrastructure, etc (Indonesian Ministry of Environment, 2001). That condition happens continuously especially in urban area which has highly dynamic of spatial changes. Regarding to that, decreasing of green open space area has significant influence to the environmental quality such as air quality and other living condition.

According to the decreasing of green space area, there some aspects influence that conditions which are inconsistency of policy and strategy of city's space, low level in law enforcement to prevent the decreasing of green area, and conflicting interest in providing all space for all activities (Indonesia Ministry of Environment, 2001).

Referring to the importance of urban green space, the research done by University Sheffield (United Kingdom) conclude that to improve quality of urban green spaces are related to: *good design and management, focused on people's needs, overcoming barriers to use and providing quality and varied experiences for the whole range of different group in community as a whole* (DLTR, 2001).

2.4. Green Open Space Management

Regarding to the importance of and the needs to manage green open space, there some important aspects/factors needed for protecting green space and increasing its quality (Carmona et al, 2003). Those factors/aspects are:

- *Political commitment and statutory commitment*
  Political will or commitment is the most important aspects to protect and manage the green open space. According to the study done in many cities and countries, political commitment can be viewed as key lesson or aspect for the success of green open space management. The success of management of green space has resulted from a mix of political will by the elected major and supported by technical skills of the city green space managers. High quality green space is most likely to result from the combined effort of staff in the city's administration as well as of its politicians.

  Political will/commitment is a long-term commitment as a pre-requisite for not only delivering high quality green space, but for ensuring that it remains high quality thereafter. This commitment was exemplified by Minneapolis, whose experience demonstrated the value of foresight, long-range planning and fostering civic commitment to urban green spaces. Political will in the management of public space is embodied in a statutory responsibility of the city authorities, something that more often

than not was not the case elsewhere. Statutory is important to explore and give the power to the political commitment. Both statutory aspect and political will/commitment is complementary each other. A carefully constructed set of statutory green space roles and responsibilities could create the incentive required to raise the quality of existing green space management practices to at least a minimum acceptable level across the board.

- *A strategic view*
  A strategic view relate to the policy issued by authorities for future target (a long term commitment). A strategic view helps to ensure that green space priorities infuse other key policy areas within the city. A green space strategy has helped to consolidate the importance to the importance of green spaces management in relation to other city services and priorities. Green space strategic view is explored in green plans which should include a clear spatial vision for green space, as well as policies for the provision, design, and long term management of urban green space. It should be considered that, form international case study, if the green space planning is not taken seriously, the lack of planning seriously impairs the ability of green space managers to innovate and to reflect changing user needs.

- *Pubic participation and communication*
  A local view (from public) in urban green space management is vital. Local view here means that public involvement/participation is important to the success of green space management. Public must be involved and convinced that green space is necessary element for the life and identity of the city. Besides the public participation, good communication between government, as authority in policy of green space, and public (urban citizen) is important to support the good green space management. Public involvement may influence to the policy taken by government in managing the green space. It means that public participation able to adopt the people wants of green space.

- *Adequate and reliable resources*
  To conduct good green space management, availability of resources especially funding resources is important to keep green space in good condition. From experiences many cities, there is a key lesson regarding to the funding of green space that there is not only a need for adequate funding, but also for reliable sources of funding over the long term (Carmona, 2003). The need to protect revenue funding streams is paramount, in order that maintenance can be prioritized across existing open space networks

- *Skilled intervention*
  Management of green space cannot run smoothly if there is no support from skilled staff to conduct that duty. From experiences in many countries in green space management, the key success is well-trained and engaged staffs who know to combine political, economic, and organizational and design skills and how to take advantage of a variety of opportunities (Carmone, 2003). For example, in the case of Minneapolis, it shows that the need for a continual renewal and investment in skills is required not just at management levels but also at the operational end of green space management.

- *Focusing on quality and efficiency*
  Old paradigm in green space management tends to the quantity thinking that green space has to fulfill the minimum standard of green space area compared to total area of

the city. This paradigm has changed/shifted to not only quantity but more focus on achieving quality thinking. It means that the quality of green space is more important than achieving the minimum total area that has to be fulfilled. This quality thinking tends to improve the quality of green space management.

Besides the quality paradigm in green space management, the need of efficiency in modern management for green space is important. Efficiency in green space management means the use of good modern management methods. Reducing costs of the maintenance is one of forms of efficiency. Cost reduction in maintenance is not means that it is minimal in financial but tends to more effectiveness in using the fund of maintenance. One important key in efficiency aspect that authorities should be to establish the optimum cost to quality ratio. From that explanation, it is clear that efficiency aspect is quite important in green space management.

- *Involving other actors*
  Involving other actors consist of private sector and public/community. In some cities, private sector involvement in managing the green space has been implemented. For example, in Malmoe (Sweden) private-government partnership has been implemented to increase the quality of green space. Involvement of other actors, in some cities, view as the value of engaging other key stakeholders in the management of green space in order to secure a better understanding of the role and significance of urban green spaces to metropolitan life.

  Other important thing related to this part is the involvement of community in green space management. The needs of community on green space have to be paid attention by Government authority. Involvement of public in green space is expected for the continuity of green space existences. The more public involvement in green space management, the better green space still keeps in good condition. Forms of public involvement can be viewed in planning until monitoring. Public involvement is important to meet the government authority's interest with public interests in managing the green space.

- *Integrating responsibilities for coordinating actions*
  Coordinating actions here means that government's action about green space management should be integrated with other government programs. For example, all programs about green space should consider to budgeting and staffing plan of government. Other important thing is to integrate the green space planning and green space maintenance activities. It means that good planning and good maintenance are crucial to the good management of green space. How far the good green space management is implemented depends on good planning and maintaining. It is also supported by enforcement power of government authority to make it runs smoothly.

- *Monitoring*
  Monitoring, one of aspect in management, is a crucial aspect in green space management. Commonly, monitoring is conducted by government authorities but public has room to be involved in green space management. Implementation of monitoring actions in green space management should be followed by regular assessment of management performance. This assessment is useful to monitor how far the green space management is conducted in reality. The monitoring aspect in green

space management should be done both to monitor the green space in quality and quantity.

Previous explanation above is supported by Sunarno (2002) as Indonesian Minister of Public Works, that the principles of green open space management are important to manage the green space especially in urban areas. The principles of *green open space management* as stated by Sunarno (2002) consist of:

- *Public Involvement*
  Public involvement is conducted both in management and maintenance of public space in which public not only has the rights to get pubic facility, but also has the obligation to maintain it. Indonesia's Act No. 24 Year 1992 about Spatial Planning article 5 states that: *(a) each people have the obligation to maintain the quality of space, and (b) each people has the obligation to obey the Spatial Planning that has been established.*

  Through public involvement, particularly in maintenance and management, the sustainability of function of public space will be ensured in longer period of time. In this context, public should be seen as one of vital elements because public is more understand about their needs regarding to suitable open space fro them. In the end by doing this step, the sense of belonging from people toward public space will increase.

- *Partnership with private sector*
  Even tough government has the responsibility to ensure the availability of public space, it provision can also be conducted by private sector. In this context, government can act as facilitator and regulator through some regulations and also act as supervisor that ensures the provision of public space as needed by urban inhabitants.

- *Law enforcement*
  Law enforcement must be conducted equally to all of people to prevent the violation of Spatial Planning. Besides Urban Spatial Planning *(Rencana Tata Ruang Kota),* another instrument than can be used is zoning regulations *(Peraturan Mintakat)* establishing through Local Government Regulation. These instruments can ensure the significant role of urban planners, landscape architects, and environmentalists to form a Planning Commission which will monitor the management of zonings, particularly zonings established as public spaces.

- *The implementation of incentive-disincentive instrument*
  This instrument is implemented through mechanism of general allocation budget *(Dana Alokasi Umum/DAU)* in which Central Government encourages Local Government to pro-actively develop and manage public spaces (including infrastructure and facility) in condition and quality that meet the standard issued previously. This instrument is also expected will encourage Local Government to defend low income community in accessing public space and has the equal choice like other communities.

The Concept of Lesson Learn

From the Cabe Space study, 2002, stated that, *'Successful, thriving and prosperous communities are characterized by streets, parks and open spaces that are clean, safe,*

attractive-areas that local people are proud of and want to spend their time in'. But in the reality green open space management start to adapt and change, and in many places are very different in maintenance and management.

In general, the criticized of urban green managements, based on the urban green taskforce of English et al., 2002, are for being poorly maintained and uncoordinated between development and maintenance activities, for being insecure because of perceived high crime rates, for lacking a coherent approach to their management with uncoordinated and often conflicting interventions by a multitude of agencies, for offering little to their users with a general lack of facilities and amenities, and for being poorly designed proving unwelcoming to people, created with poor quality materials. One of the methods to raise the challenge of improving the quality green open space management is learning from successful city. This lesson might be highly transferable to practice in the city that has problems.

Learning is transfer of specific ideas or programmes (Stone, 2003, p.5). Hall, 1993 states that learning is connected with policy transfer, but need to analytically distinctness. Stone, 2003 stated that:

> *"policy learning may result in a more coherent transfer of ideas, policies and practices whereas mere copying may well be ad hoc and piece of meal. …consequently, learning can be different 'orders', tactical or instrumental learning as opposed to social or policy learning. Thus an international consensus may prevail on 'best practice' but local political realities may mean that this consensus cannot take root in policy development. Political and bureaucratic interests are constrained by electoral considerations, issues feasibility, funding shortfalls, war of famine that prevents 'harder' forms of transfer. Ascertaining of the kind of policy change, is taking place as well as the possible effectiveness of that change. In short, there may be transfer policy knowledge but not transfer policy practice*".

Based on Marsh and Dolowitz et al., 1996, also mentioned about the learning is connected with the policy transfer. They said that policy transfer is a process in which knowledge about policies, administrative arrangements, institutions; etc in one time and/or place is used for the development of policies, administrative arrangements, institutions in another time and/or place. The policy transfer can occur voluntarily or coercively. They also identify several objects of transfer which are: policy goals; structure and content; policy instruments or administrative techniques; institutions; ideology; ideas, attitudes and concepts; and negative lessons.

Based on the theory above, the lesson learn from other cities experience may be important as an alternative way to improve green open space management in Malang. But, because every country has its own characteristics and cultures, there will be some constrains in adopting a policy from one country to another that its means transferring a policy is not an easy task. It need adjustment to uses in Malang condition which obviously different from Edinburgh experience as lending city.

Framework of Analysis

His chapter has developed the theoretical framework as a base for research analysis in chapter 4. This framework will help the reader to know an analytical thinking about this research.

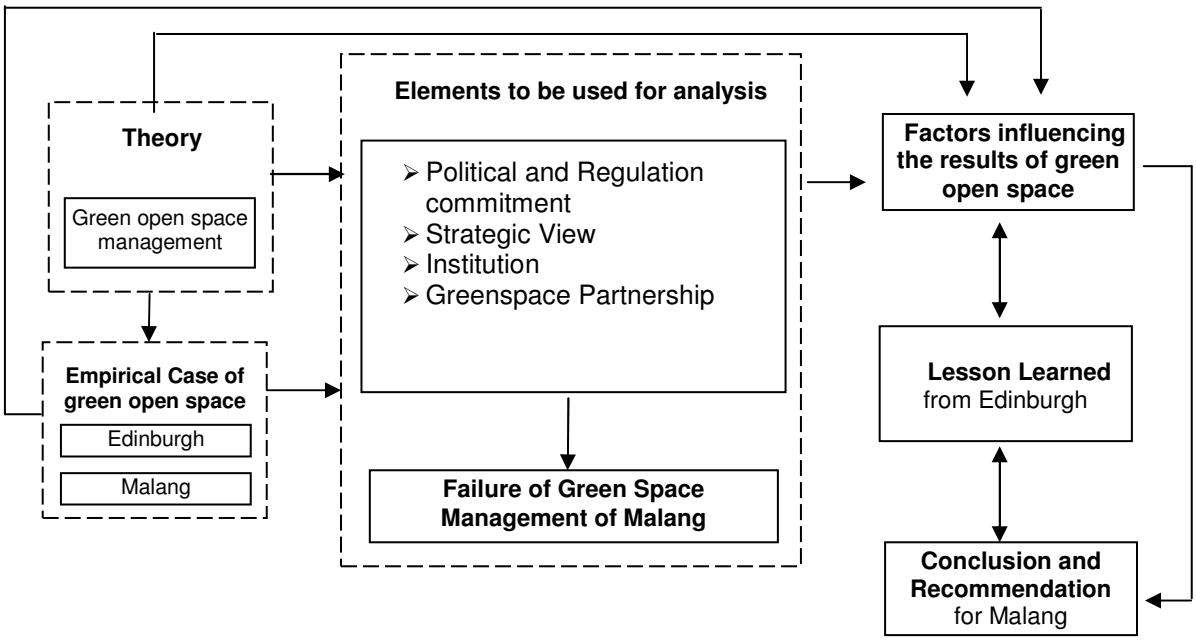


Figure 2.2 Framework Analysis

Chapter 3
Green Open Space Management of Edinburgh and Malang

This chapter will elaborate the green open space condition in Edinburgh as successful city and Malang as borrowing city including the policy, goals, and implementation of green open space management in its city.

3.1 Edinburgh

Edinburgh is the capital of Scotland and its second largest city. It forms the City of Edinburgh council area; the city council area includes urban Edinburgh and 30sq mile rural area.

3.1.1 Condition of City

Edinburgh is a thriving city. Based on Edinburgh's census 2001 reported the populations in 2001 to be 448,624 people with total area 259 km^2. The table and figure of trends of population can be seen below:

Table 3.1 Total population of Edinburgh, 1931-2001

No	Year	Total of Population
1	1931	439,010
2	1951	466,761
3	1971	453,575
4	1991	418,914
5	2001	448,624

Source: Edinburgh's Census 2001 – Trends City

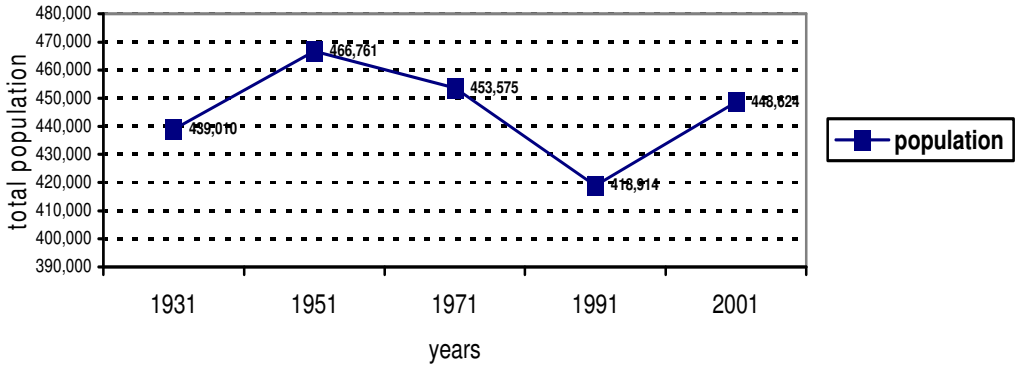


Figure 3.1 the graph of Edinburgh's population growth, 1931 - 2001
Source: Edinburgh's Census 2001 – City

Edinburgh has sustained high levels of economic growth for over a decade and jobs have been created at one of the fastest rates in the country, strengthening its position as the employment hub for the east of Scotland (The city of Edinburgh Council, 2007). Economic growth will mean change and development in Edinburgh. The government also states that the integrity of the Edinburgh Green Belt must be maintained to make it balance between physical development and nature development. Also, the development needs must be met largely by making better use of urban land without damaging historic environmental or building on important open spaces.

3.1.2 Green Open Space Condition

The hierarchy of parks in Edinburgh, taken from the recommendation made by Scottish Executive, 2001, intended to focus delivery towards meeting the needs of parks users. Five categories of parks and gardens have been identified:

1. Premier Parks (e.g. Princes Street Garden, Leith Links etc.)
2. City Parks (e.g. Gyle Park, Inch Park)
3. Natural Heritage Parks (e.g. Corstorphine Hill, Hermitage of Braid)
4. Community Parks (e.g. Harrison Park, Rosefield Park)
5. Gardens (e.g. Dunbar's Close Garden, Gardener's Crescent)

Creation of the hierarchy assists in setting and improving quality standards.

A number of major gain quantities of green space in Edinburgh were acquisition of 73 hectares of land to form Craigmillar Castle Park was a landmark. Also, the significant growth in parks acreage will come through new provision in south-east wedge and waterfront developments (The City of Edinburgh Council, 2006). The total area of green space in Edinburgh depicted in table below:

Table 3.2 The Total Area of Greenspace in Edinburgh

	Greenspace	Edinburgh
All Green space (including open space and nature areas)	Total Area (ha)	4,545
	% of City Area	38
	m 2 per head of population	109
Nature Areas Only (identified in Nature Conservancy Strategy)	Total Area (ha)	1,234.4
	% of City Area	10.3
	m 2 per head of population	29.5

Source: Scottish Executive Publications, data in 1996
http://www.scottishexecutive.gov.uk/Publications/2003/01/15950/15155 , last updated August 10, 2007

3.1.3 Management of Green Open Space

Political and regulation commitment

Edinburgh is one of the cities in United Kingdom which is tried to reach status as a world-class city with world-class parks. The city of Edinburgh has consistently put a high value on its open space (City of Edinburgh Council, 2003). The distribution and characteristic of parks in the city by the 1960's emphasized that there had been consistent policy of open space acquisition to meet the standard in place up to that time.

The Open Space Plan published in 1969 recognized that there was a long tradition in Edinburgh for incorporating open space into the city's structure. This approach has led to an environmental strongly influenced by a wide range of open space. To be most important for a successful open space (City of Edinburgh Council, 2003):

- Location close to house areas and in particular development with high density,
- Location close to several complementary land uses for example housing, shops, offices, schools, libraries and social centers,
- Location close to or across well used pedestrian routes,
- Attractive landscaping and maintenance
- A wide range of facilities catering for every age group sufficiently well placed to permit several activities to be pursued simultaneously.
- The incorporation of landscape features to create a definite character adds greatly to the attraction of a park or open space.

In Edinburgh, open space is increasingly on the political and policy agenda. Both ODPM and Scottish Executive have commissioned research into open space. The commission will provide guidance in Scotland, not only on how to enhance quality of life, but also how to ensure that all open spaces are attractive, well maintained , well used and safe (Scottish Executive, 2001).

National Planning Policy is set out in NPPG 11 Sport, physical Recreation and Open Space published in 1996. The planning system should make in protecting and enhancing open space by setting levels of provision. NPPG 11 recognizes that both public and private open spaces make a contribution to urban life, enhancing the character of residential areas and has a role in attracting business and developing tourism within a city (The City of Edinburgh council, 2003).

The City of Edinburgh has developed policies and guidance that has worked towards the requirement that assigned the Councils to survey open space and consider appropriate protection, standards and opportunities for redevelopment and improvement in design. All kinds of policies and guidance of all spaces contribute to the amenity of an area.

Strategic view

The city of Edinburgh Council published its plan for the next 10 years in March 2000. Changing Edinburgh for the better set out the city strategy with promoting the city nationally and internationally, developing the local economy, promoting a healthy and sustainable environment.

The vision of Edinburgh city plan is working in Partnership for a better Edinburgh (the City of Edinburgh Council, 2003). Public open space goal are making Edinburgh a safer and healthier place, and delivering a quality and sustainable environment. Beside this, many other organizations such as those involved in developing the City Plan, landowners and the community are central in supporting the protection, enhancement, provision and promotion of open spaces.

There are goals and strategic issues that apply to open space that have been highlighted here. Many of the City's agencies contribute to delivering these. But at present, there are number of specific strategies and requirements that have been prioritized that relate to open space. Based on the City of Edinburgh Council, 2006, the public park and gardens

Strategy[9] identifies 5 main goals and 34 recommendations, intended to raise the standards of parks provision to that of a capital that rightly has aspirations to be world-class city. This means raising the standard of provision in parks and ensuring that they are effectively maintained, providing opportunities for resident to participate in redefining their local community parks, and subsequently helping to care for them. It also means that opportunities to create new parks should be seized. The main goals are:

- To articulate and enhance the city's cultural heritage through and within its parks.
- To adopt best environmental practice in parks management and in the conservation of the natural habitat and wildlife.
- To increase the recreational, health and sports potential of parks for the benefit of the population.
- To use parks and gardens as a focus for citizenship awareness and community development.
- To improve the landscape and visual quality of parks

Edinburgh is coming under increased pressure for development opportunities, putting increasing focus onto open spaces within the City. Planning policy states that there is a presumption against development of all open spaces within policy guidance for the city (the City of Edinburgh Council, 2003). Many of the policies and guidelines are recognizing the value of open space not just for its more obvious recreational of primary function, but it value for other benefits.

The Development Plan for Edinburgh (the City of Edinburgh Council, 2004) recognizes the importance of open space as part of the high quality environment. It means all development planning should consider protecting of green space, because the open space and landscape setting are the heart of their policy. For instance, in The City Local Plan (The City of Edinburgh, 2007) seeks to protect and enhance green spaces and improve their biodiversity and their accessibility to local communities. Where major new developments are allowed, the plan will ensure that open space is provided, if possible in ways which link with and extend the existing network. The map of spatial strategy of Edinburgh Council depicted as below:

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[9] The Public Parks and Garden Strategy is the most fundamental review of the condition and status of Edinburgh's parks and gardens since the publication of the 'Open Space Plan for Edinburgh' by Edinburgh Corporation in 1969. This Strategy provides the basis for the creation of a parks system worthy of a capital city, both in terms of renewing existing parks to make them fit for purpose and in providing new parks where these are currently under provided, in creating more local ownership, promoting active lifestyles and countering anti-social behavior.

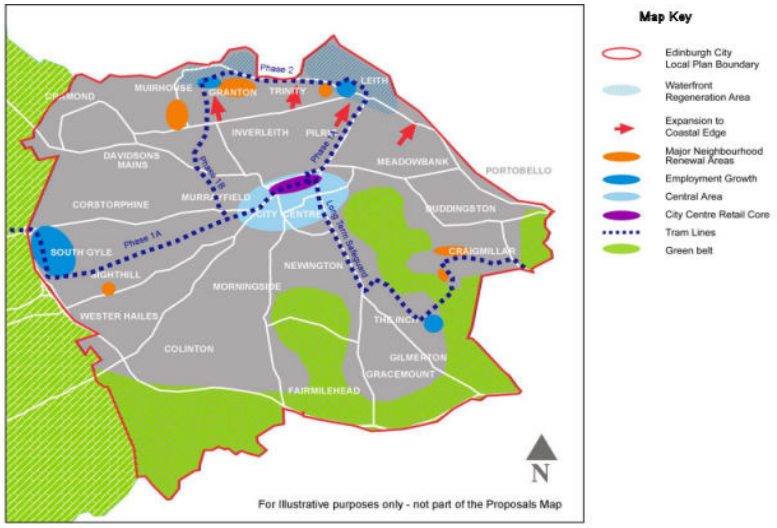


Figure 3.2 Spatial Strategy of the City of Edinburgh Council
Source: The City of Edinburgh Council, 2006

3.1.4 Institution

From April 2006, the Council's Parks functions previously dispersed between the Culture and Leisure and Environmental and Consumer Services Departments will be united in the Services for Communities Department (the City of Edinburgh Council, 2006). The structure of the new department is still being formulated, but the implementation of the strategy for parks and gardens will not be impeded by the transfer. Moves towards local service delivery by the new department will assist in ensuring that parks and open spaces make the positive contribution to liveability sought by residents and visitors.

This progress already has been made with some of the Strategy's recommendations: two tree officers have been recruited and are in post; work has begun on a review of the park ranger service to better integrate it with other service areas and improve its performance (the City of Edinburgh Council, 2006). Also, closer links shaped between the Parks Unit and the Planning Division of the City Development Department has already begun to show dividends in the development frameworks for Craigmillar and Leith Docks.

3.1.5 Greenspace Partnership

An actual partnership representing stakeholder and funding interest is required to bring the Strategy to completion and the basis for such a Green space Partnership is outlined in the document. The principal aim of the Partnership would be to bring together all of the partners responsible for green space in the city and agree a unified approach to green space issues.

Edinburgh useterm 'friend of parks' for partner in green space. Friends of Parks are groups of volunteers who play a vital role in enhancing and protecting local parks, woodlands and green spaces across Edinburgh. Working with the Councils Parks Service, the groups give

residents a greater say in what goes on in their park (the City of Edinburgh Council). Their activities are including:

- Fundraising for improvements and events in the park
- Enhancing biodiversity (e.g. creation of wildflower meadows, installing bird boxes)
- Practical tasks like clean-ups and tree planting
- Improving access
- Contributing to the management of the park
- Leading walks and talks
- Producing leaflets and other educational material

Today Edinburgh has 20 Friends groups looking after parks and green spaces and also, government have allocated money for Friends groups that will improve their parks. But, Edinburgh is still in need of care from local residents to manage 141 parks.

3.2 Malang

Malang is one of municipalities located in East Java Province, Indonesia. Geographically, Malang is located on coordinate of 112^0 06'-112^0 07' East longitude and 7^0 06'-8^0 02'South latitude. The topography of Malang is upland with the height between 440-667 m above sea level.

3.2.1 Condition of City

Malang municipality is divided into 5 districts that are Klojen, Blimbing, Sukun, Lowokwaru and Kedungkandang. Based on The Urban Spatial Planning (RTRW) Malang 2001-2011, Malang has the total area approximately 11,005.6 hectares with 798,104 inhabitants in 2005. The complete table can be seen below:

Table 3.3 Total of population of Malang, 2001-2005

No	District	Total of Population				
		2001	2002	2003	2004	2005
1	KLOJEN	121,984	122,962	119,692	108,268	106.075
2	BLIMBING	160,461	164,087	164,707	163,637	164.933
3	SUKUN	164,052	168,098	169,814	166,675	167.841
4	LOWOKWARU	151,262	154,228	157,949	158,243	186.592
5	KEDUNGKANDANG	143,932	148,972	150,264	167,930	172.663
	Total	741,691	758,347	762,426	764,753	798,104

Source: Data Base and General Figure of Malang 2004; 2005

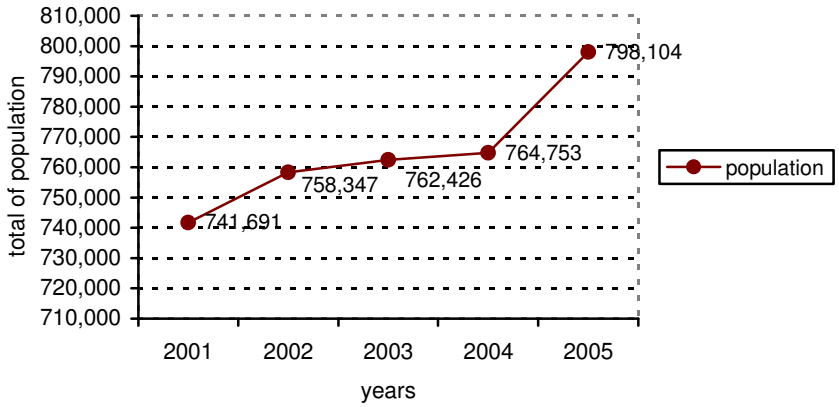


Fig 3.3 The graph of Malang's population growth 2001-2005
Source: by author

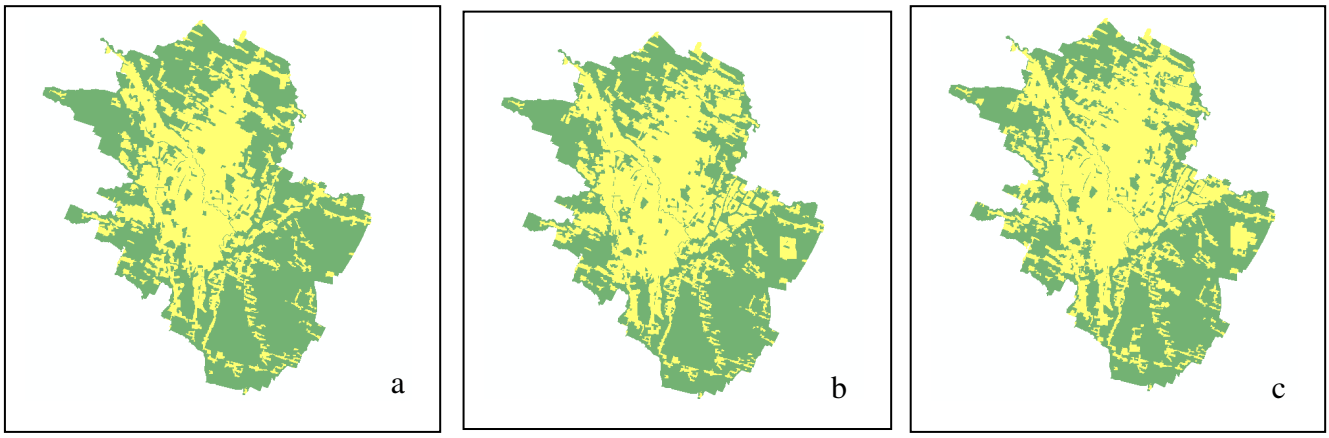
Malang is a growing city, as the second big city in East Java, tries to develop with economics activities. In the fact, economic activities which have big contribution for Product Domestic Rational Bruto (PDRB) are dominated by Processing, Trading, Hotel, and Restaurant (Directorate of Infrastructure Instrument and Investment Opportunity of Malang, 2006 in http://www.pemkot-malang.go.id.investasi). That development will influence in the number of physical development or built up area in Malang. The land-use of Malang in 2005 from the General Figure of Malang, 2005 *(Kota Malang Dalam Angka 2005)* and the increase of built up area in Malang since 1985 until 2003 can be seen below:

Table 3.4 The land-use of Malang, 2005

No	District	Area (Ha)	Paddy fields	Non Paddy fields		
				Building	Open space	Others
1	Klojen	883.00	0	754.250	128.750	0
2	Blimbing	1776.65	201,000	1,445.800	129.350	0.500
3	Sukun	2096.57	337,000	1,267.859	491.470	0.250
4	Lowokwaru	2260.00	357,000	1,597.547	305.000	0.100
5	Kedungkandang	3989.44	622,434	1,869.731	1,479.280	0
		11,005.66	1,517,434	6,935.187	2,551.850	0.850

Source: General Figures of Malang, 2005

Fig. 3.4 The increase of built up area in Malang year 1985, 1993 and 2003



Note: a. map 1985; b. map 1993; c map 2003
The yellow means built-up area, the green means non-built-up area
Source: Analyzed by author[10]

3.2.2 Green Open Space Condition

Historically, Malang was established in 1914 by Dutch Government as a municipality (*Kota Praja*). During the Dutch colonial era in the early 1900s, it was known as the city for vacation for Dutch officers, traders, and landlords. One of Malang urban planning special characteristics is the domination of green space started in the planning made by Ir. Thomas Karsten in 1933 (Bappeko Malang, 2005). From the original planning of 1933 there were significant changes of urban area in 1951. This was mostly because some green spaces had been converted to the buildings such as mosques, schools, and offices. As the substitution, Municipal Government had added playgrounds and parks in some new development areas.

Based on Malang Local Government, 1964, the first Land-use Masterplan of Malang (*Rencana Garis Besar Penggunaan Tanah Kota Malang*) was produced by the municipal government in 1962. This masterplan described the location of some open spaces in urban scale such as *Taman Indrokilo* (Indrokilo Park), *Sekolah Pertanian Menengah Atas Tanjung* (APP) as known city forest, Lapangan Rampal, riverbank, and public cemetery. In 1962, Malang was declaring Tri Bina Cita as its slogan which means the city dedicated for education, industry, and tourism. Therefore, to achieve the vision as a city for tourism, municipal government continually improves the infrastructure relates to tourism such as improving road network, maintaining city park, and green movement.

From the explanation above, it is clear that green open space has become one of important elements in the physical development of Malang Municipality. The Urban Spatial Planning of Malang 2001-2011 *(Rencana Tata Ruang Kota Malang/RTRW)* also describes that:

" *Open Green Space is an open space in which various plants grow and function as micro-climate control for catchments' area and urban esthetic".*

[10] The map was taken The Spatial Information System of Malang, 2004 with analyzed by author.

In Urban Spatial Planning 2001-2011 also states that there are five types of green open space in Malang, which are city forest, road green belt, city park, neighborhood park, and urban green buffer zone. For more detail, there are some types of green open space that has historical values, educative values, and symbolical as a landmark in Malang, can be depicted below:

Table 3.5 The Type of Green Open Space in Malang, 2006

NO	Type of Green Open Space	Name	Location	Function
1	City Gate	Arjosari Gadang Landungsari	Jl. A.Yani Utara Jl. S. Supriadi Jl. Tlogo Mas	City gate For aesthetics
2	Monument	Patung Raksasa Tugu Patung Sudirman Chairil Anwar Adipura Patung Bunga Ijen Tugu Jam Candi Pahlawan TRIP Kalimewek Bola KNIP Perjuangan Singa-Arema KB Kemanunggalan Playground	Jl. Kertanegara Depan Balaikota Jl.Pang.Soedirman Jl.Basuki Rachmat Jl. Arjuna Jl. Ijen Jl.Bandung Jl. Borobudur Jl. Ijen Jl.Ach.Yani Utara Jl. Kaliurang Depan Sarinah Jl. Semeru Jl. Sempu Jl. Bungur Jl. Pang.Soedirman Jl. Veteran	Identity of area For aesthetics
3	Field/ Nurseryt/ City Forest	Stadion Gajayana Velodrome Lapangan Rampal Kmpus APP Tanjung Hutan Kota Malabar Kebun Bibit Garbis TPA Supit Urang Kendalsari Jati Joyo Agung	Jl. Semeru Perum. Sawojajar Jl.Urip Sumoharjo Jl. Ichw.Rdw. Rais Jl. Malabar Jl. Delima Jl. Mulyoredjo Jl. Bukirsari Joyograng	For social interaction Educative Ecologies Reservoir
4	Recreational Area	Alun-alun Tlogomas Dieng Psar Bunga/Burung Sena Putra	Jl. Merdeka Jl. Simp.Tlogomas Jl. Terusan Dieng Jl. Modjopahit Jl. Rumah sakit	For social interaction Recreational For aesthetics
5	Road green belt	Jl. Ijen Jl. Jakarta Jl. Trunojoyo Jl. Merbabu Jl. Merapi Jl. Dieng Jl. Kertanegara	Front of the museum Front of train station Front of Cakra Hotel Front of train station	Ecologies For barrier

Source: Masterplan Green Open Space, 2006

As discussed in chapter 1, total area of Malang Municipality is approximately 11,005.66 hectares in which green open space area in 2005 only 2.89% of its total area. Based on standard referring to Act No. 26 year 2007 and Municipal Regulation No. 7 year 2001, Malang Municipality must provide green spaces at least 30% of its total area. The current condition shows that green open space in Malang will not be able to accommodate the need for amenity, recreational, local climate balance, etc. There are some figures about the condition of the green open spaces which is change to other uses:

A research conducted by Hasyim (2004) depicts that every physical development in Malang will contribute to significant consequence for urban environment. Referring to this research, Malang experiences the increase of temperature as the impact of rapid physical development. In Klojen Sub-district normal temperature in the beginning of the research was approximately 28^0 Celsius, but two years after that the temperature increased to 34-36 Celcius.

To overcome the problems in green open space, in 2006 Malang Municipality through Municipal Development and Planning Agency *(Bappeko)* has renewed the Master plan of Green Open Space. This master plan would accommodate the needs of green open space and arrange program and planning concept, development and management of green open space in line with Urban Spatial Planning of Malang Municipality. It is also stated in this master plan that considerations to distribute green open space are:

- green open space located in city center need to be preserved and developed as the city's landmark
- Existing main roads with green open space as the road median
- Green open space as road median for future inner and outer ring roads
- The distribution of green open space is expected equally spread in urban area, in purpose to distribute oxygen equally or whole urban area.
- Urban buffer zone would be located around city border with other regions in purpose to bar the city and to indicate the city's physical border.
- Area buffer zone would be located around industrial zone and final disposal area in purpose to prevent the city from pollution.

3.1.3 Political and Regulation Commitment

Green open space in urban areas was noted and managed in Act no. 24 Year 1992 and then revised in Act no. 26 Year 2007. This Act stated that the minimum green open space for an urban area is 30% of its total area, in which 20% of this area is public space provided by Municipal/Regency Government and the rest is private open space provided by private parties and communities. The violation to this Act will be sanctioned based on the regulation from the specific ministry.

Regulation of Ministry of Internal Affairs no. 1 Year 1997 about management of green open space in urban areas also states that the ideal size of green open space is at least 20% of total urban area. This area consists of public green open space as well as private ones. Malang municipality through Municipal Regulation no. 11 Year 2001 has declared 30% of it area is allocated for green open space. The conditions for this objective are clarified as follow:

1. The areas originally allocated for preservation area must be developed as urban green belt, particularly the area functions as a buffer zone and as urban respirator.
2. To maintain the ecological balance of Malang, there need to regulate urban policy as follow:
    a. The urban development zone must provide sufficient green open space with the classification based on building density below:
        - For high density area, the minimum green open space is 10% of total area
        - For medium density area, the minimum green open space is 15% of total area
        - For low density area, the minimum green open space is 20% of total area
    b. The urban development zone must be controlled based on Building Coverage Ratio and Floor Coverage Ratio by considering the type and characteristic of land-use.
    c. To maintain the quality and provision of ground water, each building whether the existing building or future building must provide the permeable well.
    d. To improve water permeability into the ground, there need to develop water catchments' area which will maintain run-off water and drainage.
3. Green open space outside of the development zone must preserve minimum 30% of total area of Malang Municipality. This number has included the area for conservation, cultivation, etc.
4. In the area around industrial zone in which Building Coverage Ratio for industry maximum 50% of total area, the area for green open space together with sirculation area comprise 50% of the rest. The type of plant which suitable for industrial area is the plant that can function as a buffer for air pollution and noise.

The goal of the Masterplan of Green Open Spaces of Malang is realize to Malang *Bestari* (*Sehat, Nyaman, Indah, Serasi*) concept. *Bestari* means Healthy, Well-being, Beautiful and Harmonious that explanation about this concept are:

- Healthy; it has relation with environmental quality toward sustainable development, safe from the pollutions; reach the balancing between physical needs and environmental, and also environmental stability.
- Well-being; It has relation with physical place quality of human behavior as users.
- Beautiful; it has relation with esthetic visual quality of environmental, environmental cognition and perception.
- Harmonious; it has relation with pattern and function among two physic in one environment.

Then, the local government explains more about strategic of green open space to support the goals, there are:

1. Green Open Spaces Management for esthetic, ecology, recreation, and education functions.
2. Trees planting
3. Green Open Space as an identity of area
4. Grouping of green open space based on function, hierarchy, and environment-space scale.

The objectives of green open space management in Malang Municipality are:

1. Maintaining and preserving urban environments.
2. Improving the quality of life of urban inhabitants
3. Creating a healthy and green environment.
4. Preserving and developing rare and indigenous plants from Malang
5. Promoting public awareness to actively participate in environment conservation.
6. Improving and maintaining the micro climate, esthetic value, run-off water absorption, and to create harmonious environment.

The Mayor of Malang, Peni Suparto, explained[11] that urban forest, green open space and providing area for community are important functions and services in Malang. Local government has faced dilemmatic problem. On one hand, local authority intends to protect, maintain and improve green open space as an element to support amenity and healthy environment. On the other hand, local authority should provide public infrastructure and facilities to serve urban activities and the daily need of communities. It means that there is conflict of interest between green open space provision and other thinks which also need space such as shopping center etc.

He said that one of facts which contribute to the problem above is limited area capacity in accommodate good public facilities and infrastructures. So, development determined by Malang Municipality is continuing existing development process along with considering sustainable greening movement.

Greening strategy in Malang area not only emphasizes on existing green open space, but also considers certain areas which are possible to be greened by various kinds of plants. Greening movement becomes one of environmental policies in Malang Municipality. The Mayor's visions related to green open space management are compiles at his book' *"Mari Menanam dan Merawat"*.

3.1.4 Institution

The local government who has duty to manage the green open space is Malang Park Agency as daily-job description. To handle their vision, the Park Agency needs coordination with other agency such as *Bappeko*, *Dinas Kebersihan*, etc.The coordination among agencies called by name Team Coordination Implementation of Regional Plan (TKPRD). The member of TKPRD are *Bappeko, Dinas Permukiman dan Prasarana Wilayah, Dinas Pengawasan Bangunan dan Pengendalian Lingkungan, Dinas Pertamanan, Dinas Kebersihan*, and related agencies.

But, in planning process like as master plan green open space has Malang Planning Agency responsibility, in which permit of land use changes in green open space are coordinated by *BAPPEKO*, and TKPRD. There are many institutions involve in green open space management in Malang that makes overlapping task, and in the fact the coordination is difficult to implement because of ego-sectoral.

[11] Peni Suparto's artikel, Development and Ecologies (*Pembangunan dan Ekologis)* taken from official website of Malang Municipality (http://www.pemkot-malang.go.id/artikel.php?subaction=showfull&id=1165374859&archive=&start_from=&ucat=11&) last updated August16, 2007

Green open space management is integrated with city local planning, in which every level of planning process produces plan, management and also guidelines. Beside that, *Bappeko* also produces master plan green open space for major guidelines in green open space management.

3.1.5 Greenspace Partnership

In masterplan green open space of Malang, (Bappeko, 2006) there is not explaining about green open space management partnership. This is making the mechanism partnerships for the actor in green open space management unclear.

Community participation in green open space management in Malang is just to create park in their housing (neighborhood parks), for instance Cisadane park, etc. But for other activities, the community just supporting the programme from local government such Malang Ijo Royo-Royo, but they are not give some initiatives in green open space management.

Chapter 4
Analysis of factor influencing for green open space management

This chapter will make analysis of the failure of green space management in Malang. Then, analysis factor influencing of green open space between the two cities: Malang and Edinburgh. The learning is some items that will be compared discussed, and reviewed. And then, I will analyse the possibility for policy transfer

4.1 Failure of Green Open Space Management of Malang

As elaborated in chapter 2, green open space in urban area is difficult to be realized because of pressure from population growth and the increasing need of urban infrastructures. Technically, there are some issues related to green open space in Indonesia, namely: sub-optimization in provision of green open spaces either in their quality or quantity, weak institution and lack of human resources, lack of involvement from stakeholders in managing green open space, and limited space which can be used for green open space.

In reality, sub-optimization of green open space provision is closely related to inadequate proportion of urban area allocated for green open space. Besides that, it is also caused by low ratio of open space per capita. This condition results in the declining of urban convenience and wealth of urban inhabitants which indirectly contributes to the vanishing of local values because of pragmatic economic interests. Meanwhile, the existing open areas legally provided as green open space are not optimally maintained and managed.

In terms of institution, problems in green open space are also related to unavailability of comprehensive regulations about it and the implementation guideline resulting in marginalization of green open space in urban areas. Besides those problems, the quality of human resources also needs to be improved in order to maintain and manage green open space in an optimal and more professional ways. On the other hand, the involvement of private party and community in general is still far from significant. The potency of private party in green open space management is not optimized so that local government often has to face to problem of budget availability.

As discussed in chapter 1 and chapter 3, the condition of green open space in Malang is very sorrow. In 30 years, Malang has lost more than 35 hectares of its green open space. Nowadays Malang only has 2.89% green open space from its total area. This condition occurs because of economic development and political pressure. Local Government is always in a dilemmatic position in choosing between developing by sacrifice the environment or vise versa.

The actual development trend in Malang shows that local government tends to develop by sacrificing the environment, particularly the green open space. Because green open space is government's asset, it is easier for local government to develop green open space and to convert it into hard infrastructure. The decision made by local government refers to national regulations such as the Declaration of Ministry of Finance no. 470/KMK.01/1994

and the exchange of national asset *(ruilslag)* based on the Declaration of Ministry of Finance no. 350/KMK.03/1994. Government has authority to swap assets or national treasures which can be done trough selling, exchanging, granting/donating, including in government share, and terminating. It was strengthen through Act no.32 Year 2004 about Local Government which gives large authority for local government to change the status of national asset.

Arwinanto (2007) argues that the regulation as mentioned above has triggered the changing of land use in Malang from the local government's side. There are some motivations behind land use deviation in Malang as indicated by Arwinanto (2007)

Table 4.1 Some motivations behind land use change in Malang

Variabel / Cases	Land Use Change	Regulation	Infrastructure	Land Value	Location	Land's Price
Indrokilo	From Park and reservoir to expensive housing	Permendagri no. 4, 1979	complete	high values, profitable	strategic, near from heritage areas (Ijen Boulevard)	Expensive, Rp. 2-3 M/m^2 tahun 2006
APP	From agricultural school, reservoir to housing	SK Walikota No. 1965, 1991, Perwali Malang No. 33, 2005	complete	High value, profitable	strategic	Expensive, Rp. 2-3 M/m^2 tahun 2006
MOG	From sport center to mall, hotel	Perwali Malang No. 33, 2005	complete	High value, profitable	Strategic, in Malang stadium area	Expensive
Kunir	From city park to office (Office of Oro-oro Dowo Sub-District)	SK Walikota no. 385, 2006	complete	Local government assets	Strategic, within in Oro-oro Dowo Sub-District	Expensive

Source: Arwinanto, 2007 and analyzed by author

From the analysis of motivation which become the basis for some changes in green open space, it can be conclude that economic and political motivation are the most influential factors in the process of decision making of municipal government. High value of land, complete infrastructure, and accessibility on green open space often becomes the main consideration of overall green open space value.

Based on Bappeko, 2005, there are other two factors which become the constraints in maintaining green open space in Malang, namely internal factor and external factor. These factors can be explained below:

- Internal factor

  The increasing of population as the impact of urbanization is the constraint because it lessens the area which functions as green open space. Besides that, there is lack of consciousness within communities about the importance of green open space and resulted in many violations toward the regulation. This condition is caused by vagueness between the rights and obligations of communities and local government in green open space management. The bureaucrats in Malang Municipality from lower until top level are still inconsistent toward Urban Spatial Planning *(Rencana Tata Ruang Kota)* which was issued before and has been declared as local government regulation.

The Urban Spatial Planning that has been formulated by a group of experts and has been calculated based on needs of communities is often ignored. Its related products such as Regional Spatial Planning (Rencana Tata Ruang Wilayah/RTRW) and Detail Urban Spatial Planning (Rencana Detail Tata Ruang Kota/RDTRK), is often considered only as planning document but not as the guideline for physical development. In fact, there are some bureaucrats who still consider that building economic facilities is more benefit than maintaining green open space and prefer to converse green open space without considering ecological consequences.

- External factor
  Malang Municipality often has to face higher level policy regarding urban land use from Provincial or National level. National government through certain department has assets in terms of land in Malang and the use of land sometimes is not in-line to Malang's spatial planning.
  Private investor may also contribute to the constraint in maintaining green open space in Malang, particularly if this space is located in strategic location in terms of high land price. In this situation, private investor will approach the decision makers in Malang to issue a new permission even tough it will give negative impacts in the future.

4.2 Factor influencing in the result of green open space management

Political and regulation commitment

Based on URGE-project, 2004 (in chapter 2) stated, the one of four important factors to make greening cities is improvement of urban green space provision. The measure and methods for improving the quantity, provision and distribution of urban green space requires special strategies. In other words, the development concepts as strategies framework of green open spaces management is important for starting point. Besides that, the explanation about concept of green open space management may sufficient to initiate an analysis to protection and to improvement of green open spaces.

In the context of the Edinburgh green open space management, as shown the hierarchies of the strategic of green open space management. The City of Edinburgh Council has Green space Framework that is explaining about their green open space management.

Public open space already features within many strategies, plans and policy guidance at various levels. It means green open space is an important point in Edinburgh development planning. Moreover, in their policies and guidelines are recognizing the value of open space not only for more obvious recreational or primary function, but it value for other benefit. Edinburgh planning policy states that there is a presumption against development of all open spaces within policy guidance for the city as mentioned by Policy GE2 Open Space Protection, Central Edinburgh Local Plan (in draft open space framework for Edinburgh, 2003):

> *Planning permission will not be given for new development which would result in the loss of any open space which contributes to environmental character and amenity or is of recreational or other social value(Policy GE2 Open Space Protection, Central Edinburgh Local Plan)*

This fact proves that policy of green open space in Edinburgh bounding together with other sectors of planning. Therefore, it can minimize changing in land use from green open space to built-up space. In fact, policy formulation regarding green open space management is very detail including the action plans.

In the context of Malang, green open space is also one of important parts discussed in urban planning process. As discussed in chapter 3, green open space strategy implemented in Malang Municipality describes from the national regulation to regional regulation and then to Malang Urban Spatial Planning. Green open space management can be explained more from the urban spatial planning to master plan green open space. But the master plan green open space of Malang is still not in legal regulation.

Differ from policy and strategy implemented in Edinburgh, established policy in Malang is still in form of master plan of green open space, long term greening program, and medium term greening program. However, this master plan still does not have legal basis that make it difficult to be implemented not like any others plans. Guiding policy as an action plan is not yet made. To exercise green open space management, Malang only relies on existing medium term and long program.

This situation weakens the legal position of green open space in Malang. Besides that, program related to green open space in Malang is only greening activity such as planting new trees. This program is done incidentally and is not part of an action plan. Because Malang needs more than only "one million trees" program, it needs more green open space in the future.

However, in reality all developments which have been conducted in Malang Municipality could not reflect environmental development. Although greening movement continue to be conducted, physical infrastructure development which need considerable space also continue to increase. This is because there are lacks of commitments and awareness from all parties especially from elected decision makers, executive and public to deal with protecting or improving green open space. So, municipal authority should encourage and change perceptions all stakeholders above in perceiving green open space management, through:

- Enhancing the awareness of public, private and municipal authority in green open space
- Conducting some dialogues with communities in managing and making use of green open space.

Institutional

In the Edinburgh context, the strength point is they know the efficient and the effective of their institutional according with green open spaces management. According to the City of Edinburgh Council 2006, the government made the new department to solve the efficiency structures with the effectiveness contribution for livability citizen.

In the Malang context, the coordination among institutional which is related in green open space management is still lack. Actually, it is not really effective in order to prevent and enhance the green open space, because of the limitation task in spatial planning and also to much coordination. In the fact, in order to spatial planning problem the *Dinas Pertamanan* is not really join up coordination with other departments, because of political intervention.

Green space partnership

Besides the policy and institutional, another influencing factor is green space partnership. In the context of Edinburgh, it is clear that citizen really aware to green open space. It can be seen from the existence of many friends' parks in Edinburgh. Partnership concept implemented in Edinburgh is funding system to improve the quality of park. Each friend's park is responsible for its own maintenance.

In Malang, green open space is a Municipality's asset. Management of green open space becomes the responsibility of Park Agency *(Dinas Pertamanan)*. Nevertheless, there are few parks managed by community members (see chapter 3). The parks managed by community members only function as neighborhood's park in small scale. In terms of management concept, there is no funding from municipal government.

The most significant characteristic of participation concept is community awareness toward the importance of green open space for whole urban inhabitants. In Edinburgh, community members are aware that they need green open space for many activities, so that they eager to spare their time being volunteer in green open space management. Besides that, they work professionally to achieve the status of Best Park from Green Flag Award which is held annually.

In contrary to community participation in Malang, most community members only participate incidentally that is when municipal government conducts a special event. Many community members, for instance, participate in *"*One Million Trees Action*"(Gerakan Sejuta Pohon)* in 2004. Unfortunately after accomplishing plant the trees in that event, there is no community member sustaining its further action. Community participation is only significant during reboisation contest and will diminish after the contest is ended without further clear program. Despite this condition, there is interesting fact in community participation in green open space management in Malang known as *rembug kampong* or community discussion (see chapter 3) which has been implemented since 2006. This discussion is more successful than Regional Development Planning Discussion coordinated by *Bappeko Kota Malang*.

Green open space partnership in Malang Municipality in supporting long term and medium term program is supported by private parties such as HM Sampoerna – a cigarette company – which provide some financial support in *Malang Ijo Royo-royo* annual event. Lack of funding in green open space management is also experienced by municipal government. Partnerships with private parties are expected as one of solutions promoted by municipal government to overcome this problem.

4.3. Lesson Learned

From the analysis above, the some experiences and lesson learned from Edinburgh to Malang can be concluded at table below:

Table 4.2 Experience and lesson learned from Edinburgh green open space management

Factor influences	Edinburgh experiences	Malang experiences

Political and Regulation Commitment	- The Edinburgh strong political will from politician, elected decision-makers and public force
	- Edinburgh has detailed and specific regulation and guidance for green open space management
	- requires all regional and local authorities to implement green open space management
	- Good starting precondition for making regulations and guidance.
	- Green open space management applied into policy
		- Malang strong political will from administrative. Whereas the awareness from politician, elected-decision-maker and public force has not been significant
		- The awareness from all parties must be enhanced
		- Gaining the same attention and perspective from those actor can be achieved through:
		  - encouraging the awareness of politician and public,
		  - giving information and education on green open space management.
		- The weakness is lack implementation of the political will, policy, guidelines of green open space management

Green space partnership	- The Edinburgh has strong green partnership - The citizen awareness is very good, term of friend's park	- Malang has weak green partnership - The citizen awareness is fair, just incidental participation - There is still not available local regulation of citizen participation - Malang has *rembug kampong* that is a good partnership to find their problems and solve it by them.
Institution	- More effective and efficient, because they has just one agency to handle green open space management - Support from their good staff-skill	- There are many institutions that have the responsibility to the implementation of green space management. - The staff skilled is weakness point.

Source: analyzed by author

From the table above, it can be accomplished that there are several condition and factor are potential for prevent or enhance green open space management. Based on table 4.1 the factor for enhance green open space management are:

Table 4.3 Factor influencing for enhancing green open space management in Malang

Factor influences	Malang conditions	Status
Political and Regulation Commitment	- The recognition of green open space from administrative - Lack of awareness from all parties - Lack of information and education on green open space management - Lack of implementation of political will, policy, guidelines	- Strength - Weakness - Weakness - Weakness
Green space partnership	- Lack off green space partnership - Lack of citizen awareness - Not available local regulation of citizen participation - Rembug Kampong	- Weakness - Weakness - Constraint - Strength
Institution	- Many institution is mean many coordination - No supported by good skill-staff	- Constraint - Weakness

By considering all of factor above, both in green open green management of Edinburgh and Malang, the author analyzed that there is the lesson to enhance green open space management from Edinburgh to Malang. The reasons from that lesson are:

1. The political will from politician, elected decision-makers and public force is good in implementation. It means political and regulation commitment has starting point in successful management of green open space.
2. The regulation from central government into local government is needed as guidelines.
3. There are some regulations in central and local government that support the implementation of green space management. Also, they have many guidelines in order to prevent and enhance their quantity and quality of green open space.
4. The awareness for regulation and partnership is important point to successful in green open space management.
5. The efficiently and effectively of institution is needed. The simply coordination about green open space management is important to cut the unnecessary chain, like funding for the same object from many institutions, etc.
6. The partnership is important point.

Regarding the some lesson above, Malang still need to improve in all factor influence in green open space. To improve the condition, the author will suggest some recommendation in the next chapter.

Chapter 5
Conclusion and Recommendations

This chapter concludes the results of this study through answering main research question and supporting research question in chapter 1. Conclusion of this research is base of theoretical framework developed in chapter 2. In the end, this chapter will be closed by giving several recommendations through answering main research question how to enhance the capability of green open space management in Malang.

5.1 Conclusion

This part will conclude all analysis in this study, particularly in green open space management in Malang. The focus of this thesis is based on theory of green open space management which was taken from several literatures, and also theory of lesson learns. The theory of green open space management can be used to answer the research questions.

As mentioned in chapter one, the objective of this thesis is to find the gap in urban green open space management in Malang with the implementation. By this research, the study has drawn the factors causing failure of Malang's green open space management. Moreover, the lessons learn from the Edinburgh experiences will be specific interest to green open space management is necessary to promote green open space. In practice, this study also expected to provide a lesson on how should green open space policy be developed in order to be more well implemented in Malang.

Question 1: *What are the causes of the failure of green open space management in Malang?*
In the context of current condition of green open space in Malang is cause by several factors. There are the population growth, land use change because of the economical pressure and political pressure, also law enforcement of urban spatial planning implementation.

Question 2: *What can be learned from successful city for Malang?*
The City of Edinburgh Council as successful city in management of green open space give some lessons are in political and regulation commitment, green space partnership and institution.

Question 3: *How to enhance the capability in managing green open space in Malang?*
By learning from the Edinburgh experiences, there are some lessons:

1. The political will from politician, elected decision-makers and public force is good in implementation. It means political and regulation commitment has starting point in successful management of green open space.
2. The regulation from central government into local government is needed as guidelines.
3. There are some regulations in central and local government that support the implementation of green space management. Also, they have many guidelines in order to prevent and enhance their quantity and quality of green open space.

4. The awareness for regulation and partnership is important point to successful in green open space management.
5. The efficiently and effectively of institution is needed. The simply coordination about green open space management is important to cut the unnecessary chain, like funding for the same object from many institutions, etc.
6. The partnership is important point

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5.2. Recommendation

In order to encounter the failure in implement the indicator of green open space management, several recommendation are proposed:

- The need to understanding the context of green open space management in urban area. The awareness of benefit of green open space could be preventing the existing condition of green open space.
- Good political will and good implementation is very important.
- Law enforcement is needed. The clearer all the procedures in green open space management such as control in planning.

Finally, the author hope this thesis will contribute in setting better improvement at particular green open space management issue which might be used to support Malang to be greening city.

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