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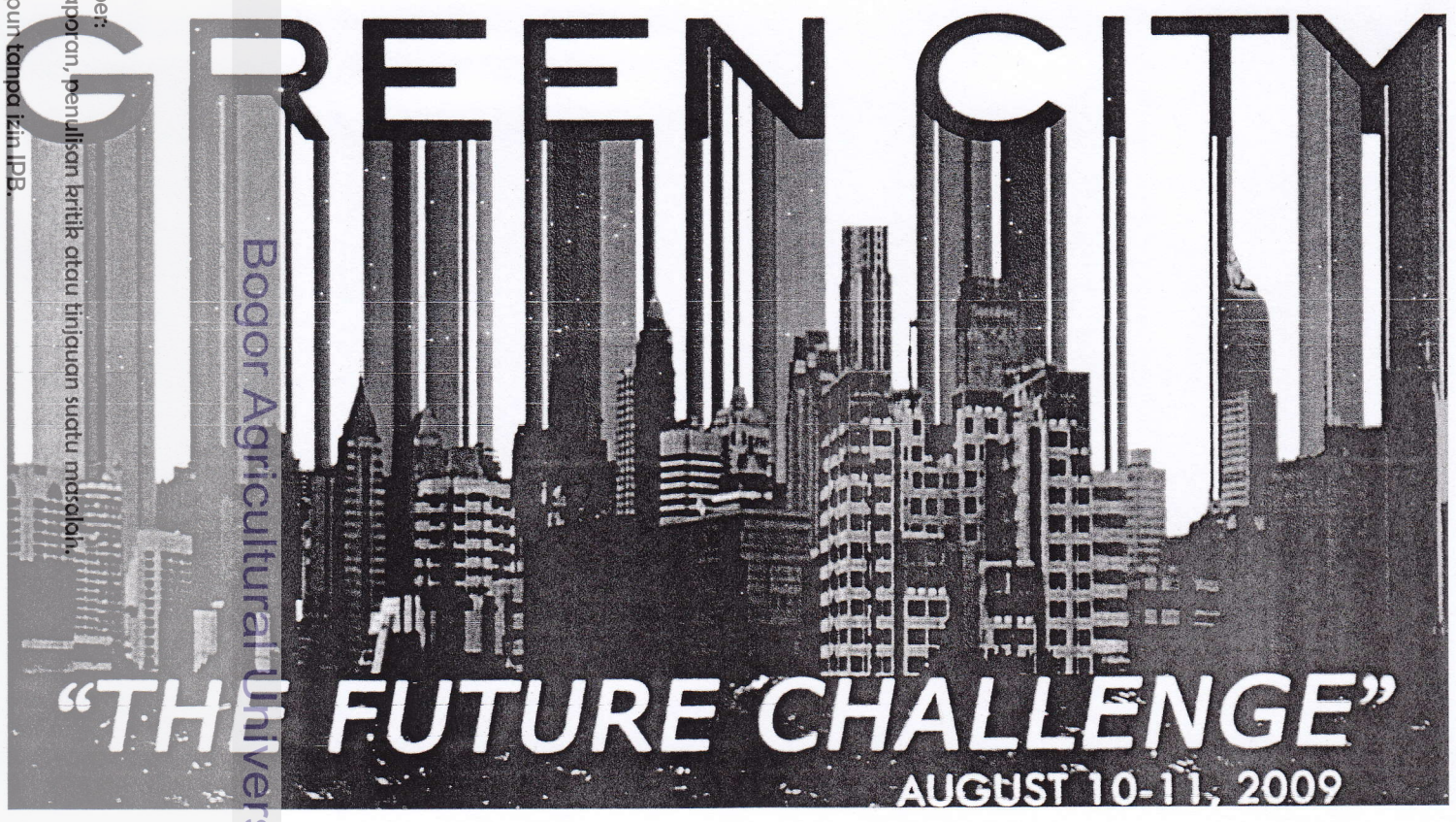
Sentul City
City of Innovation

PROCEEDING

The International Symposium of GREEN CITY



"THE FUTURE CHALLENGE"

AUGUST 10-11, 2009

Proceeding " The International Symposium of Green City"
The Future Challenge

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EDITORIAL

Proceeding of The International Symposium of Green City is concerned with conceptual, scientific, and design approaches toward urban sustainability. The papers were presented on The International Symposium of Green City, August 10-11th 2009, held by Dept of Landscape Architecture Department at IPB Bogor, Indonesia. It emphasizes ecological understanding and a multi-disciplinary approach to analysis, planning and design of urban area. The paper also attempts to draw attention to ecological processes interacting within urban areas, and between these areas and the surrounding natural systems with specific problems such as social and cultural approaches to urban landscape issues.

Proceeding consists of papers dealing with Green City, Eco-City and Sustainable City; Green Infrastructure and Green Architecture; and Urban Rural Linkage. The topics might include but are not limited to landscape ecology, landscape planning and landscape design. Landscape ecology examines how heterogeneous combinations of ecosystems are structured, how they function and how they change. Landscape planning examines the various ways humans structure their land use changes. Landscape design involves the physical strategies and forms by which land use change is actually directed. The papers is based on the premise that research linked to practice will ultimately improve the urban landscape.

We wish this proceeding to be a useful for increasing our understanding toward urban sustainability and we also sincerely thank for sponsors, steering committee, organizing committee and paper contributors.

Bogor, November 2009

EDITOR

Opening Address

International Symposium of Green City
"The Future Challenge"

Assalamu'alaikum Warahmatullahi Wabarakatuh

Good Morning, Ladies and Gentlements. First of all, please allow me on behalf of Bogor Agricultural University or IPB to welcome you all to IPB Campus. It is an honour for IPB to be a host of this very important event to discuss the future challenge of green city. I thank you very much, especially for the keynote speaker, the honorable Minister of Public Eork Republic of Indonesia visit to IPB campus to day. This visit is very important for IPB; because IPB has a long history in environment and agricultural studies related to publuc works. I thank you very much for invited speakers and participants from Indonesia and overseas to share their research progress related to green city in this symposium. This symposium is an initial meeting to develop understanding the context of problem sollution to address the future of green city. However, I am sure that this symposium will conclude very valuable results.

Dear Participants, Distinguished Guests,

Since December 2000, IPB has become an autonomous university. As a legal entity, IPB has been more independent in term of academic program, as well as resource management. IPB is the only state university in Indonesia that is focusing on tropical agriculture and bio-science as its core competence. Internationally, IPB is well recognized. IPB has been in a long standing cooperation with national as well as international institutions. IPB has nine faculties, one Postgraduate School, and one Vocational School. IPB has 36 departments and 16 research centers. Student body of IPB is around 25,000 students, 15,000 of which undergraduate students, 5,000 graduate students and the rest are vocational school students. IPB has 133 professors, IPB is capable of offering innovative programs including activities on green city research and development. There are some opportunities to develop research collaboration between IPB and national/overseas Universities, as well as other institutions, like Sentul City, Sampoerna Group on green city research and development.

Dear Participants, Distinguished Guests,

This symposium is aimed to be an exchange information event on research results related to green city and the implementation of green city concept in several housing area such as Sentul City. As we know that Sentul City introduce a new cluster with green building and green wall as a part of green infrastructure concept. The collaboration project between IPB and Sentul City was just signed by two parties on last month to show that IPB is very concerned to develop an integrated spatial plan for green city.

Dear Participants, Distinguished Guests,

Through this symposium we do hope that the green city concept could be widely adopted by the government and the housing developer to prevent and even to increase green space in urban area. I thank you very much for all the participants and wish you a very succesful symposium. Finally, I hope this symposium will be very fruitfull and be a significant step in realizing green city concept. Thank you very much for your attention.

Wassalamualaikum Warahmatullahi Wabarakatuh

Bogor, August 10th, 2009

Rector,

Prof. Dr. Ir. Herry Suhardiyanto, MSc.

Welcoming Speech

Dean of Faculty of Agriculture

Ladies and gentlemen,

First of all we would like to express our gratefulness to Allah for all the blessings have received. It is our pleasure to welcome you all to this global awareness symposium. Will our city be chaos or controlled? We believe our city should be controlled. Our future city should be a green city, eco-city, and sustainable city. We invite our colleagues representing academicians, professionals, government and community members to give enhancement and to share their experiences on three sub themes of our discussion i.e. (1) green city, eco-city and sustainable city (2) green infrastructure and green architecture; and (3) urban-rural linkage. Therefore we would like to thank to Prof Yoritaka Tashiro from Chiba University; Diane Wildsmith, MSc Arch Visiting Assistant Professor of University of Indonesia, Prof Joerg Rekittke Director of MLA Program, National University of Singapore; Deni Ruchiyat from Ministry of Public Work; invited speakers and practitioners and developers who had pioneered local and community based sustainable development and management in the city.

Our landscape architecture competencies, originating from horticultural and environmental sciences that later will be developing into green and aesthetic spatial engineering competencies that will inspire our colleagues from Department of Landscape Architecture to develop concept of green city. We believe such competencies will be complementary and needed in our complex future.

I intend my address on how city as aliving and dynamic entity, should be developed in sustainable ways. As an analogy to a biological organism, a metabolic process in which material is consumed and transformed, complex growth and development occurs in a city. Therefore as generically outlined by Sarosa (2004) green city development and management is subject and in respect of (1) intergeneration orientation, (2) spatial dynamic (3) sosio-economic viability, (4) political and policy power and arena, (5) interspecies interaction, and (6) intermedium transformation. Moreover, benefits of such development and management for its inhabitants not only socio-economic and environmental benefits, but also cultural vibrancy in which the community inclusively participates. Starting by this symposium we invite you all to engage in efforts of "green" enhancement in respect to Lynch's (1980) fundamental criteria: (1) vitality of the infrastructure and function; (2) sense of place; (3) fit or sense of competence; (4) competence; (5) control; and (6) meta criteria (equality, justice) to create a better livable city.

Have a success symposium. Thank you.

Prof. Dr. Ir. Didy Sopandie, M. Agr.
Dean of Faculty of Agriculture
Bogor Agricultural University

Welcoming Speech

Head of Landscape Architecture Department

Distinguished Ladies and Gentlemen, all participants of Green City International Symposium,

The rapidly growing world population is exerting great pressure on the land, waters, and energy resources that are essential to productive tropical agriculture-rural communities and its bio-resources. By 2030, more than 60 percent of the world population will live in cities, up from almost half now and just a third in 1950. The growth poses huge problems ranging from clean water supplies to trash collection. Already, one of every three urban dwellers lives in a slum in the present time. Let us create green cities. Adding the United Nation goal of halving poverty by 2015 would not be met unless city planning was less haphazard.

Green city (*kota hijau)* is a term used for sustainable city or ecological city. Activists mark June 5, the date of the first environmental summit in Stockholm in 1972, as the UN World Environment Day. The 2005 theme is Greener planning for cities, many of them hit by air pollution, fouled rivers and poor sanitation. In San Fransisco, the main host of the 2005 event, mayors from more than 50 cities including Shanghai, Kabul, Buenos Aires, Sydney, Phnom Penh, Jakarta, Rome and Istanbul planned to sign up for a scheme setting new green standards for cities. Cities would be ranked from zero to four starts according to compliance with a set of 21 targets. And around the world, from Australia to Zimbabwe, activists staged rallies, cleaned up litter, organized poetry competitions or planted trees.

Green City is related to Urban Enviromental Management and ISO 14001 at the level of a City. The development and implementation of the EMS at the level of a city is a complex task involving a myriad range of tasks and actors. UNEP's International Environmental Technology Centre recommends three steps in extrapolating the ISO 14001 to the level of city:

- **Step 1 (Promotion of Eco-office):** Reduction of energy use; Reduction of water use; Reduction of solid wastes; Promotion of recycling; Green Procurement;
- **Step 2 (Promotion of Eco-Project):** Using e-friendly materials; Using e-friendly equipment; Accelerate use of recycled materials; Green public enggineering works; Develop green technology; Promote greening
- **Step 3 (Green City Planning):** Set green guidelines for public works; Set green guidelines for housing; Enchance public transportation; Capacity building; Apply EMS to the whole city

Through the Green City International Symposium that is being conducted in IPB International Convention Center (IICC), Bogor, Indonesia on 10-11 August 2009, we wish all the stake-holders from academic institution, professionals, companies, government, and communities can sit together to have excursion in the second day in the objects of Sentul City, Puncak Highland, Taman Bunga Nusantara, and Kota Bunga.

After the symposium, you could enjoy Bogor City and its vicinity by yourself. We suggest tovisit Bogor Botanical Garden, Ethno-botany Museum, Zoology Museum, culinary tour, etc.

Finally, welcome to Bogor and have a good and fruitful time attending this symposium.

Prof. Dr. Ir. Hadi Susilo Arifin, MS
Head of Landscape Architecture Department
Faculty of Agriculture-IPB

Welcoming Speech

Chairperson of Organizing Committee

Assalamu'Alaikum Warahmatullahi Wabarakatuh

Good Morning, Ladies and Gentlemen.

First of all, welcome to distinguished guest Rector IPB, Keynote Speaker, Dean Faculty of Agriculture and other Faculties, Invited Speakers, Head of Department Landscape Architecture and other Departments, and all participants in this Symposium of Green City organized by Department Landscape Architecture, IPB. It is a great honor for me to explain a brief report about these two days symposiumwith the theme.

Dear Participants, Distinguished Guests,

As we all know the loss of urban green space became a trend of urban development in all over the world. However, global warming, high pollution, flooding, etc. have become hot issues recently in big cities, including in Indonesia. We need to give our energy to revitalize the existence of urban green space to reduce these problems. Urban green space strongly plays an important role to improve ecological sustainability of urban landscape, beside increase the aesthetics of the city.

The new Spatial Planning Act 26/2007 gives us a bright future for urban sustainablity commitment. One of the important provisions of the Spatial Planning Law 26/2007 is the requirement of at least 30% of urban areas for open spaces. The open spaces can be public and private open spaces. More specifically, public open spaces account for at least 20% urban areas. In addition, this law stipulates that forest areas must be account for at least 30% of river stream areas. Such provisions were not included in the previous spatial planning law.

Dear Participants, Distinguished Guests,

With these all in mind, we selected "The Future Challenge of Greencity" to become a theme of this symposium. The symposium will be held on two days. On first day, we will learn deeply about greencity concept from honorable invited speakers, and experience learning from private sectors in the morning; and after lunch time we will share our research progress related to green city which is divided into 3 parallel sessions: Green city, Eco-city and Sustainable city; Green Infrastructure; and Green Architecture and Urban-Rural linkages. For these parallel sessions, we grateful all to 30 oral presenters and 9 poster presenters. It is great honor for us as an academic society to share our research experience through this Symposium.

On second day, we will hold o field excursion. We well visit Sentul City, the beautiful satellite city within Jabotabek area with excellent MURI awars of 2009 for their streetscape design, and Kota Bunga Nusantara, one of well designed flowers city in Puncak Area. Through this field excursion, we do hope that we could learn how to realize a greencity not only based on theority based but also from real practice.

Dear Participants, Distinguished Guests,

Finally, we do hope that this symposium become a valuable time for our learning process to reach our dream: "Greencity". Many thanks to head of Landscape Architect Department, Steering Committee, and Organizing Committee, without you all, we could not hold a big event. Also highly appreciation for all studentd, with their big effort to spend the time and energy for symposium preparation.

On behalf of organizing committee, we kindly ask your apology for some any weaknesses during these two days event and symposium preparation.
I do hope that ALLAH SWT bless all of us
Thank You

Wassalamualaikum Warahmatullahi Wabarakatuh

Dr. Ir. Alinda F.M Zain, MSi.
Chairperson of Organizing Committee

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CONTENTS

The Diversity of Trees in Roadside Greenbelt in Jakarta

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ABSTRACT

Trees inroadside greenbelt were inventoried in 2008 by The Park and Public Funeral Agency of Jakarta Province Government in order to develop a trees database of green open space in Jakarta. Number of trees was observed in 113 main roads at 5 administration regions of Jakarta. Observed road consist of 23 roads in central Jakarta, 24 roads in North Jakarta, 22 roads in south Jakarta, 22 roads in West Jakarta, and 23 roads in East Jakarta. Data collection was limited to all trees that exist in right of way area that included trees in pedestrian paths, median and road separators. Physical attributes of these trees were observed include of name of the trees, caliper, tree height and width of canopy.

The results of these observation shows that in the most of roads, trees were found in one row in places such as road shoulders, road separators and road median. However more than one row of trees was found in several roads that have a wide median or road shoulder. The observation of 113 roads shows trees in roadside greenbelt in Jakarta consisted of wide varieties. Totally 25,701 trees were found, and at least 119 species of trees were recorded. However among of the species, 79% of population was dominated by the next 10 species: *Swietenia macrophylla*, *Pterocarpus indicus*, *Mimusops elengi*, *Polyathia fragrans*, *Cerbera manghas*, *Ficus benjamina*, *Diallium indum*, *Roystonea regia*, *Polyalthia longifiloa* and *Bauhinia purpurea*. Most of roads were planted with more than on single species. The number of tree species in each roads observed ranged from 1 – 26 species in Central Jakarta, 1- 49 species in West Jakarta, 1-36 species in North Jakarta, 1-37 species in East Jakarta, and ranged from 3-34 species in South Jakarta. The diversity of tree species in roadside greenbelt in Jakarta enhanced the functions of planting in creating a comfortable and beautiful road for its surrounding.

Keyword: Diversity, Roadside greenbelt, Tree

1. INTRODUCTION

Variety of vagetation area exists as components of green open scape in Jakarta. Roadside green belt and uban park perform as component of green open space spread dominantly in Jakarta compare to other type of green open space. Therefore roadside green belt and urban park contributes greatly to the visual and physical qualities of urban Landscape. City forest, mangrove and urban agricultural areas are also important components of urban green open scape.

Various type of plants such as ground cover plants, shrubs, and trees were planted in the area of green open space. Due to the trees type of plants having the biggest dimension of canopy, trees in the green open space contributes greatly to create urban visual landscape, and bossting environment qualities. Mature tree having a dense conopy and broadly spread roots become a component of green open space that effectively contributes to increase urban carrying capacity.

Jakarta has a system of greenery developed since collonial era spread such us roadside green belts, urban park, and urban forest. Due to broadly spread following the road network in the city of Jakarta, trees in the roadside green belts play an important role in increasing u ban aesthetic, comport, and atmosfir qualities of Jakarta. Therefore mature tree and also young trees in the roadside green belts requires a planned maintenance management to p ovide good environment to ensure optimum trees growth.

Collecting information of exisitng trees in the road side green belts in Jakarta was necessary required to prepare tree maintenance programs. In order to constructing tree

3.2. Tree diversity in the roadside green belts

Table 2 show recapitulation of tree species diversity in roadside green belt in 5 municipals of Jakarta. Species of tree used in roadside green belts widely varied. Among of 25,706 trees observed on 113 roadside green belts was found 119 tree species. The degree of tree species diversity was different among the municipals of Jakarta. The highest number of species was recorded in South Jakarta (83 species) followed by Central Jakarta (59 species), West Jakarta (70 species), North Jakarta (69 species) and East Jakarta (69 species).

It's found 119 tree species in the roadside green belts, however the dominancy of each species was widely different. The most frequent species found in the roadside green belts comprising 10 species, such as *Swietenea macrophylla* (4,779 trees), *Pterocarpus indicus* (4,531 trees), *Mimusops elengi* (3,532 trees), *Polyalthya fragrans* (2,104 trees), *Cerbera manghas* (1,351 trees), *Ficus benjamina* (1,331 trees), *Diallium indum* (939 trees), *Ryostonea regia* (658 trees), *Polyaltya longifolia* (628 trees), dan *Bauhinia purpurea* (407 trees). In the other word, population of the 10 dominant species represented 78.8% of all population. Other results of observation performed 50 species was used only a few, less than 10 trees.

Type of trees used in roadside green belts in 5 municipals of Jakarta represented variety of plants groups. I'ts found palms, needle leaf plants, blossom tree, leaves attractive trees, aromatic tree, and commonly planted as fruit tree. The high diversity of road side trees provide advantage, due to variety of species in the community of green belts more resist to pest attack, and also increasing physical qualities of environment.

Tabel 2. **Diversity of trees used in roadside green belts in 5 municipals of Jakarta**

No	Local name	Secientific name	Central Jakarta	West Jakarta	North Jakarta	East Jakarta	South Jakarta	Total (Tree)
1	Mahoni	*Swietenia macrophylla*	481	673	256	1,988	1,381	4,779
2	Angsana	*Pterocarpus indicus*	436	703	1,601	1,331	460	4,531
3	Tanjung	*Mimusop elengi*	577	392	116	1,445	1,002	3,532
4	Glodogan Bulat	*Polyalthia fragrans*	585	566	70	508	375	2,104
5	Bintaro	*Cerbera odollams*	2	574	664	78	33	1,351
6	Beringin	*Ficus benjamina*	52	190	98	897	94	1,331
7	Asam Kranji	*Dialium indum*	32	183	392	321	11	939
8	Palem Raja	*Roystonea regia*	22	212	100	126	198	658
9	Glodogan Tiang	*Polyalthia longifolia*	32	274	23	120	179	628
10	Bunga Kupu-kupu	*Bauhinia purpurea*	137	99	88	25	58	407
11	Tabebuia	*Tabebuia chrysantha*	12	74	148	47	13	294
12	Kelapa	*Cocos nucifera*	19	34	184	30	23	290
13	Ki Hujan	*Samanea saman*	59	94	58	35	23	269
14	Asam	*Tamarindus indica*	21	7	157	48	15	248
15	Biola Cantik	*Ficus lyrata*	7	126	52	4	45	234
16	Jati Mas	*Cordia sebestena*	39	100	57	34	2	232
17	Kelapa Sawit	*Elaeis guinensis*	28	174	6	3	18	229
18	Akasia	*Acacia auriculiformis*	5	22	49	100	9	185
19	Mahoni Kecil	*Swietenia mahagoni*	150	1	0	17	10	178
20	Sawo Duren	*Chrysophyllum coinito*	1	2	0	0	174	177
21	Kamboja	*Plumeria rubra*	106	27	3	5	26	167

database; observation of tree diversity, population and distribution in roadside green belts have been carried out by Park and Public Funeral of Province of DKI Jakarta. The paper will discribe the results of studies especially the diversity and population of trees in roadside green belt in 5 municipals of Jakarta.

2. RESEARCH METHOD

2.1. Location and time of research

Trees of the roadside green belt were observed in 5 municipals of Jakarta, from July 1 to October 28, 2009. Location and the name of observed roads were shown in Table 3-6. Numbers of observed sites were 113 roads that consisted of 24 roads in central Jakarta, 22 roads in West of Jakarta, 21 roads in north Jakarta, 23 roads in east Jakarta, and 23 roads in South Jakarta. The points of observation were limited in ROW area, including trees in pedestrian path, the area beside of asphalted parts, in the median of road and in the traffic island, if any.

2.2. Data Collecting of Trees

In order to build a trees database, all of trees in the roadside green belt were observed both old and young trees. Variabels of tree that observed including : local name, scientific name, population, tree height, and trunk diameter on breast height.

3. RESULTS OF STUDY AND DISCUSSION

3.1. Population of trees in Roadside Green belt

Recapitulation of trees population observed in 5 municipal of Jakarta presented in Table 1. Number of trees found in 113 roadside green belts was 25,706 trees. The highest population (7,996 trees) found in East Jakarta. Population of trees in some roads that having trees in median and in the land beside pedestrian path contributed to high population in East Jakarta. The highest population of tree in some roads including Jl. I Gusti Ngurah Rai (1,664 trees), Jl. Pemuda (1,174 trees), Jl. Ahmad Yani (1,110 trees) dan Jl. Pramuka (878 trees).

Population of trees was grouped into old and young trees based on trunk diameter. Old dicotytiledon trees defining as a tree having trunk diameter ≥ 50 cm, and < 50 cm for young trees. But old monocotyledon trees having a trunk diameter ≥ 25 cm and < 25 cm for young trees.

Proportion of old and young trees varied in each region in Jakarta (Table 1). Among of 5 municipals in Jakarta, the highest proportion of old trees was found in Central Jakarta (23.3%), followed by the value in South Jakarta (21.2%), West Jakarta (15%), East Jakarta (12.6%), and north Jakarta (12.0%). In this research, number of old trees was found totally 4,087 trees (15.9%) and the rest was young trees (84.1%). In other word, a tree in the roadside green belts in Jakarta generally was consisted of young trees. Old trees and young trees should be maintaint properly in order to keep optimum trees growth, especially more cautions must be focused to old trees to ensure tree safety to road user.

Table 1. **Population of trees in the roadside green belts observed in 5 municipal of Jakarta**

No.	Region	Number of observed roads	Number of trees	Number of old trees	Proportion of old Trees (%)
1.	Central Jakarta	24	3,180	742	23.3
2.	West Jakarta	22	5,192	780	15.0
3.	North Utara	21	4,629	556	12.0
4.	East Jakarta	23	7,996	1,011	12.6
5.	South Jakarta	23	4,709	998	21.2
	Total	**113**	**25,706**	**4,087**	**15.9**

22	Kersen	*Muntingia calabura*	17	24	32	64	21	158
23	Ficus	*Ficus sp.*	17	3	55	36	44	155
24	Flamboyan	*Delonix regia*	21	47	17	29	38	152
25	Dadap Merah	*Erithrina crista-galli*	3	53	10	41	44	151
26	Mangga	*Mangifera indica*	18	42	20	20	44	144
27	Sawo Kecik	*Manilkara kauki*	30	76	11	3	12	132
28	Sengon	*Paraseriathes falcataria*	13	25	9	25	55	127
29	Palem Putri	*Veitchia merrillii*	24	11	11	64	16	126
30	Puspa	*Schima wallichii*	0	0	0	117	0	117
31	Pinang	*Areca catechu*	0	1	23	83	5	112
32	Bunut	*Ficus sp.*	8	24	22	54	2	110
33	Cemara Angin	*Casuarina equisetifolia*	0	75	19	0	0	94
34	Lamtoro	*Leucaena glauca*	8	49	25	7	3	92
35	Nangka	*Arthocarpus integra*	26	12	4	16	29	87
36	Bungur	*Langerstroemia loudonii*	24	7	9	16	23	79
37	Palem Hijau	*Ptychosperma macarthurii*	25	5	17	10	15	72
38	Kapuk	*Ceiba pentandra*	5	50	5	8	1	69
39	Waru	*Hibiscus tiliaceus*	1	40	7	9	5	62
40	Kenari	*Cannarium hirsutum*	40	0	0	0	18	58
41	Mengkudu	*Morinda citrifolia*	3	5	29	8	8	53
42	Sengon Laut	*Paraserianthes sp.*	0	6	28	0	10	44
43	Salam	*Syzygium polyanthum*	0	5	0	19	14	38
44	Ketapang	*Terminalia cattappa*	5	1	11	13	7	37
45	Krey Payung	*Filicium decipiens*	9	0	0	20	5	34
46	Jambu Biji	*Psidium guajava*	0	2	9	22	0	33
47	Beringin Karet	*Ficus elastica*	6	2	5	8	8	29
48	Sapu Tangan	*Maniltoa grandiflora*	0	0	0	26	0	26
49	Petai Cina	*Leucaena glauca*	3	1	12	4	5	25
50	Palem Botol	*Mascarena lagenicaulis*	2	5	3	9	6	25
51	Pinus	*Pinus merkusii*	4	2	15	0	3	24
52	Kasia	*Kasia fistula*	0	0	23	0	0	23
53	Dadap Kuning	*Erythrina variegata*	0	22	0	0	0	22
54	Wuni	*Antidesma bunius*	4	15	0	0	2	21
55	Jati	*Tectona grandis*	0	1	6	5	9	21
56	Jambu Air	*Eugenia aquea*	1	1	2	9	7	20
57	Cemara Kipas	*Thuja orientalis*	0	0	0	19	1	20
58	Khaya	*Khaya senegalensis*	18	0	0	0	0	18
59	Saga	*Adenanthera pavonina*	1	0	7	8	1	17
60	Belimbing	*Averhoa carambola*	0	3	4	0	10	17
61	Jarak	*Ricinus communis*	0	11	0	5	1	17
[illegible]	Kemiri	*Spathodea*	1	0	13	0	1	15

otal Trees)
779
531
532
104
351
331
939
658
628
607
294
290
269
248
234
232
229
185
178
177
167

		campanulata						
63	Cemara	*Casuarina sp.*	0	0	0	7	8	**15**
64	Palem Sadeng	*Livistona rotundifolia*	0	2	2	10	1	**15**
65	Palem Alexander	*Archontophoenix alexandrae*	0	6	0	4	3	**13**
66	Kosambi	*Schleichera oleosa*	12	0	0	0	0	**12**
67	Jambu	*Psidium guajava*	0	0	0	0	11	**11**
68	Pucuk Merah	*Syzygium campanulatum*	0	0	0	11	0	**11**
69	Sawo	*Manilkara zapota*	0	3	0	1	6	**10**
70	Gliricidia	*Gliricidia sp.*	0	6	3	0	0	**9**
71	Sikat Botol	*Callistemon citrinus*	0	0	0	0	8	**8**
72	Bunga Merak	*Caesalpinia pulcherrima*	7	0	0	0	0	**7**
73	Melinjo	*Gnentum gnemon*	0	1	0	3	3	**7**
74	Mimba	*Azadirachta indica*	0	0	7	0	0	**7**
75	Pacira	*Pachira aquatic*	0	1	1	0	5	**7**
76	Kayu Manis	*Cinnamomum burmanni*	5	0	0	1	0	**6**
77	Palem Ekor Tupai	*Wodyetia bifurcata*	3	1	1	1	0	**6**
78	Jamblang	*Syzigium cumini*	1	0	2	2	1	**6**
79	Alpukat	*Persea Americana*	0	0	0	1	5	**6**
80	Nyamplung	*Callophyllum inophyllum*	0	5	1	0	0	**6**
81	Rambutan	*Nephelleum lapiaceum*	0	0	0	2	4	**6**
82	Durian	*Durio zibethinus*	0	0	0	0	5	**5**
83	Karet	*Ficus elastic*	0	1	4	0	0	**5**
84	Kecapi	*Sandoricum keetjapie*	0	4	0	0	1	**5**
85	Matoa	*Pometia pinnata*	4	0	0	0	0	**4**
86	Cemara Laut	*Casuarina equisetifolia*	0	0	4	0	0	**4**
87	Cempaka	*Michelia champaca*	0	0	2	0	2	**4**
88	Kayu Putih	*Eucalyptus alba*	0	0	4	0	0	**4**
89	Kedondong	*Spondias dulcis*	0	1	1	1	1	**4**
90	Palem Kuning	*Chrysalidocarpus lutescens*	0	0	2	0	2	**4**
91	Bixa Kesumba	*Bixa orellana*	3	0	0	0	0	**3**
92	Kelapa Gading	*Cocosnucifera var capitata*	3	0	0	0	0	**3**
93	Sukun	*Artocarpus communis*	1	0	0	2	0	**3**
94	Belimbing Wuluh	*Averrhoa bilimbi*	0	0	0	0	3	**3**
95	Cemara Norflok	*Araucaria heterophylla*	0	0	0	0	3	**3**
96	Hujan Mas	*Casia multijuga*	0	0	1	0	2	**3**
97	Keluih	*Artocarpus communis*	0	2	0	0	1	**3**
98	Mindi	*Melia azedarach*	0	0	0	3	0	**3**
99	Serut	*Strobilus asper*	0	0	0	3	0	**3**
100	Sri Gading	*Nyctanthes*	0	0	0	0	3	**3**

101	Kasia Emas	*Casia multijuga*	0	0	0	0	2	2
102	Kenanga	*Cananga odorata*	0	0	0	0	2	2
103	Lengkeng	*Nephellium longanum*	0	2	0	0	0	2
104	Mangium	*Acasia mangium*	0	0	0	2	0	2
105	Sempur	*Dillenia philippinensis*	0	0	0	2	0	2
106	Srikaya	*Annona squamosa*	0	1	1	0	0	2
107	Cempedak	*Artocarpus champeden*	1	0	0	0	0	1
108	Casia golden	*Cassia biflora*	0	0	0	0	1	1
109	Batavia	*Jatropha sp.*	0	0	0	0	1	1
110	Calincing	*Oxalis corniculata*	0	0	0	0	1	1
111	Cemara Gunung	*Casuarina junghuniana*	0	0	0	0	1	1
112	Ceremai	*Phyllanthus acidus*	0	1	0	0	0	1
113	Jati Belanda	*Guazuma ulmifolia*	0	1	0	0	0	1
114	Kanyere	*Bridelia monoica*	0	0	1	0	0	1
115	Ki Putri	*Podocarpus sp.*	0	0	0	0	1	1
116	Petai	*Parkia spesiosa*	0	1	0	0	0	1
117	Sikas	*Cycas rumpii*	0	0	1	0	0	1
118	Walisongo	*Schefflera sp.*	0	0	0	1	0	1
119	Waru Laut	*Hibiscus tiliaceus*	0	0	1	0	0	1
Total of trees			**3,180**	**5,192**	**4,624**	**7,996**	**4,709**	**25,701**
Total of species			**59**	**70**	**69**	**69**	**83**	**120**

3.3. Tree Population and Diversity in Central Jakarta

Population of trees in the roadside green belt in Central Jakarta is presented in Table 3. Observation in 24 roadside green belts found 3,180 trees that consisted of 742 trees (23.3%) old trees. Relatively high population of trees recorded in Jl. Kramat Saiemba (641 trees), Jl. Gunung Sahari (431 trees) dan Jl. Hayam Wuruk (398 trees). Old trees generally found on all observed road, but the proportion of old trees was widely different, from 7.0 % in Jl. Hayam Wuruk to 81.3% in Jl. Veteran III.

Table 3 show the diversity of trees in the roadside green belts in Central Jakarta. The diversity of species that showed by the number of species in each observed roads, varied from 1-26 species. The most dominant species used in Central Jakarta including *Swietenia mahagoni*, *Pterocarpus indicus*, *Polyalthea fragrans*, *Canarium communae*, *Tamarindus indica*, and *Khaya senegalensis*. *Swietenia mahagoni* was dominant in 8 roads, *Pterocarpus indicus* dominant in 7 roads, *Polyathea fragrans* dominat in 4 roads. *Canarium communae*, *Mimusops elengi*, *Tamarindus indica* and *Khaya senegalensis* dominant in 1 road, respectiveiy.

Tabel 3. **Tree population and dominant species in the roadside green belts in Central Jakarta**

No.	Name of road	Number of trees	Number of Old Trees	Proportion of old trees (%)	Number of species	Species Dominancy	
						Name of species	%
1	Jl. Abdulrahman Saleh Raya	19	10	52.6	7	*Swietenia macrophylla*	26.3
2	Jl. Abdulrahman Saleh I/II/Simpang S.Gs	46	16	34.8	14	*Swietenia macrophylla*	26.1

3	Jl. Borobudur	26	15	57.7	4	*Pterocarpus indicus*	76.9
4	Jl. Cempaka putih	138	23	16.7	17	*Pterocarpus indicus*	34.8
5	Jl. Gunung Sahari	431	213	49.4	14	*Pterocarpus indicus*	19.3
6	Jl. Hayam Wuruk	398	28	7.0	9	*Swietenia macrophylla*	39.4
7	Jl. Jaanda Veteran	130	-	5.4	3	*Mimusops elengi*	93.8
8	Jl. Katedral	51	5	9.8	-	*Canarium commune*	54.5
9	Jl. Kesenian	35	9	25.7	1	*Polyalthea fragrans*	100.0
10	Jl. Kimia	24	10	41.7	6	*Swietenia macrophylla*	81.2
11	Jl. Kramat Salemba	641	23	3.6	26	*Polyalthea fragrans*	61.4
12	Jl. Kwitang Gunung Agung	164	73	44.5	13	*Pterocarpus indicus*	23.2
13	Jl. Lapangan Banteng Selatan	52	12	23.1	4	*Swietenia macrophylla*	66.7
14	Jl. Lapangan Banteng Barat	34	17	50.0	5	*Tamarindus indica*	47.1
15	Jl. Lapangan Banteng Utara	66	8	12.1	-	*Polyalthea fragrans*	65.2
16	Jl. Lapangan Banteng Timur	61	2	3.3	6	*Swietenia macrophylla*	30.2
17	Jl. Latuharhari	336	111	33.0	12	*Mimusops elengi*	71.8
18	Jl. Mendut	64	22	34.3	10	*Pterocarpus indicus*	35.9
19	Jl. Percetakan Negara	217	102	47.0	16	*Pterocarpus indicus*	48.5
20	Jl. Pos Raya	54	3	5.6	4	*Polyalthea fragrans*	81.5
21	Jl. Prambanan	26	2	7.7	7	*Khaya senegalensis*	46.2
22	Jl. Veteran 1	91	0	0.0	11	*Swietenia macrophylla*	22.5
23	Jl. Veteran 3	32	26	81.3	1	*Pterocarpus indicus*	100.0
24	Jl. Wahidin	44	5	11.4	4	*Swietenia macrophylla*	70.5
	Total	**3,180**	**742**	**23.3**			

3.4. Tree Population and Diversity in West Jakarta

Table 4 show population and diversity of trees in the roadside green belt in West Jakarta. Whole trees observed in 24 roadside green belts were 5,192 trees that consisted of 780 (23.3%) old trees. Some roads have a relatively high population of trees, such as Jl. Tubagus Angke (2048 trees), Jl. Arjuna Selatan/Utara (551 trees), Jl. Daan Mogot (475 trees) dan Jl. Kyai Tapa (379 trees), Jl. Latumenten (322 trees), and Jl. Cideng Barat/Timur (369 trees). Long distance of the road, and the existence of median and road separator, and the dense of plants contributed to high population of tree in green belts.

Old trees in West Jakarta found on all observed road, except on Jl.Hadiah Utama and Jl. Jelambar. Proportion of old trees was widely different, from 1.3% in Jl. Gajah Mada to 78.3% in Jl. Pal Merah Utara. The diversity of species in West Jakarta that showed by the number of species in each observed roads varied, from 1-49 species. The 5 most dominant species used in West Jakarta including *Pterocarpus indicus, Swietenia mahagoni, Cerbera manghas, Polyalthea fragrans and Mimusops elengi. Pterocarpus indicus*was dominant in 7 roads, *Ryostonea regia* was dominant in 2 roads, *Polyalthea fragrans* dominant in 7 roads, *Ficus lyrata* was dominant in 2 roads. *Polyathea longifolia, Artocarpus integra, Samanea*

saman, Mimusops elengi and Ficus benjamina was only dominat in 1 road, respectively. Single spesies (*Pterocarpus indicus*) using in Jl. Tomang Raya strongly present a distinct road identity. The high diversity of tree species using in road side green belt such as 49 species in Jl. Tubagus Angke, and 24 species in Jl. Daan Mogot did not perform a uniq identity of road, but mass planting of variety of species will also promote physical environmental qualities.

Tabel 4. **Tree population and dominant species in the roadside green belts in West Jakarta**

No.	Name of road	Number of trees	Number of old Trees	Proportion of old trees (%)	Number of Species	Species Dominancy	
						Name of species	%
1	Jl. Arjuna Selatan	276	16	5.9	17	*Swietenia macrophylla*	34.6
2	Jl. Arjuna Utara	275	4	1.4	16	*Swietenia macrophylla*	30.5
3	Jl. Cideng Barat	183	85	46.4	11	*Ryostonea regia*	54.0
4	Jl. Cideng Timur	187	78	41.7	5	*Ryostonea regia*	70.3
5	Jl. Daan Mogot	475	126	26.5	24	*Swietenia macrophylla*	24.6
6	Jl. Gajah Mada	216	3	1.3	9	*Polyalthea fragrans*	52,5
7	Jl. Hadiah Utama Raya	38	0	0.0	7	*Swietenia macrophylla*	42.1
8	Jl. Jelambar Baru	27	0	0.0	5	*Polyalthea fragrans*	70.3
9	Jl. Jelambar utama	23	1	4.3	7	*Polyalthea fragrans*	43.4
10	Jl. Kebon Jeruk Raya	144	53	36.8	11	*Pterocarpus indicus*	79.8
11	Jl. Kemangisan Raya	14	5	35.7	11	*Pterocarpus indicus*	14.2
						Ficus lyrata	14.2
						Arthocarpus integra	14.2
12	Jl. Kembangan Raya	113	7	6.2	11	*Pterocarpus indicus*	46.9
13	Jl. Kembangan Raya Selatan	14	10	71.4	4	*Samanea saman*	78.5
14	Jl. KS Tubun	98	9	9.2	8	*Ficus lyrata*	70.4
15	Jl. Kyai Tapa	379	61	16.1	11	*Ficus benjamina*	35.3
16	Jl. Latumenten	322	70	21.7	23	*Pterocarpus indicus*	21.7
17	Jl. Meruya Utara	48	11	22.9	13	*Ficus benjamina*	27.0
18	Jl. Pal merah Barat	97	66	68.0	12	*Pterocarpus indicus*	69.0
19	Jl. Pal merah Utara	23	18	78.3	2	*Pterocarpus indicus*	56.5
20	Jl. Tanjung Duren Raya	129	10	7.8	10	*Swietenia macrophylla*	48.0
21	Jl. Tomang Raya	63	35	55.6	1	*Pterocarpus indicus*	100.0
22	Jl. Tubagus Angke	2,048	118	5.8	49	*Cerbera manghas*	22.9
		5,192	**780**				

3.5. Tree Population and Diversity in North Jakarta

Results of trees observation in the road side green belt in North Jakarta is presented in Table 5. Observation in 21 roadside green belts found 4,629 trees that consisted of 556 (12.0%) old trees. Relatively higher population of trees found in: Jl. R.E Martadinata (933 trees), Jl. Bandengan Utara-Selatan (508 trees), Jl. Bugis Raya (407 trees), Jl. Sunter Permai Raya (363 trees), and Jl. Cilincing Raya (316 trees).

Old trees found in all road side green belts, except in Jl. Pintu Besar Utara, Jl. Mawar dan Jl. Waru. Proportion of old trees among of observed roads varied from 1.2 % di Jl. Tugu Raya to 28.8% in Jl. Cilincing Raya. Therefore generally most of trees in observed roadside green belts in the north Jakarta consisted of young trees.

Tree diversity in the roadside green belts in north Jakarta presented in Table 5. Only one species of tree (*Pterocarpus indicus*) found in Jl. Bandengan Utara/Selatan, however number of species increased up to 36 in Jl. Bugis Raya. Among 4,629 trees recorded in North Jakarta, the 5 most frequent species used in north Jakarta including *Pterocarpus indicus* (1,601 trees), *Cerbera manghas* (664 trees), *Diallium indum* (392 trees), *Swietenia macrophylla* (256 trees), dan *Cocos nucifera* (184 trees).

Pterocarpus indicus was dominant in 11 roads, *Cerbera manghas* was dominant in 2 roads, *Cocos nucifera was dominant in 2 roads. Diallium indum, Tamarindus indica, Ryostonea regia, Swietenia macrophylla, Polyalthea fragrans*, and *Ficus benjamina was* dominant in 1 road, respectively. Single species used in mass planting such us *Peterocarpus indicus* in Jl. Bandengan Utara/Selatan strongly performed a distinct steetscape.

Tabel 5. **Tree population and dominant species in the roadside green belts in North Jakarta**

No	Name of road	Number of trees	Number of old Trees	Proportion of old trees (%)	Number of Species	Species Dominancy	
						Name of species	%
1	Jl. Bandengan Utara-Selatan	508	77	15.2	1	*Pterocarpus indicus*	100.0
2	Jl. Bugis Raya	407	1	0.2	36	*Diallium indum*	16.5
3	Jl. Cilincing Raya	316	91	28.8	13	*Pterocarpus indicus*	30.5
4	Jl. Enggano	104	21	20.2	8	*Pterocarpus indicus*	45.2
5	Jl. Gedong Panjang	136	34	25.0	14	*Pterocarpus indicus*	28.7
6	Jl. Jampea	149	4	2.7	4	*Tamarindus indica*	85.2
7	Jl. Kali Besar Barat	131	19	14.5	11	*Ryostonnea regia*	45.8
8	Jl. Kali Besar Timur	95	2	2.1	11	Cocos nucifera	27.6
9	Jl. Kopi	58	15	25.9	6	*Swietenia macrophylla*	48.3
10	Jl. Kramat Jaya	298	6	2.0	16	Bintaro	67.8
11	Jl. Lodan Raya	190	7	3.7	12	*Pterocarpus indicus*	45.8
12	Jl. Mawar	104	0	0.0	17	*Pterocarpus indicus*	38.5
13	Jl. Papanggo	32	4	12.5	5	*Cerbera manghas*	68.8
14	Jl. Pelabuhan Raya	204	26	12.7	7	*Pterocarpus indicus*	64.2
15	Jl. Pintu besar Utara	45	0	0.0	5	*Cocos nucifera*	44.4
16	Jl. Pelumpang Raya	261	29	11.1	17	*Pterocarpus indicus*	70.5
17	Jl. R.E Martadinata	933	203	21.8	33	*Pterocarpus indicus*	27.5
18	Jl. Sungai Bambu	57	4	7.0	15	*Ficus benjamina*	22.8
19	Jl. Sunter Permai Raya	363	7	1.9	20	*Cerbera manghas*	14.0

20	Jl. Tugu Raya	169	2	1.2	17	*Pterocarpus indicus*	56.2
21	Jl. Waru Raya	69	0	0.0	8	*Pterocarpus indicus*	66.7
		4,629	**556**				

3.6. Tree Population and Diversity in East Jakarta

Trees population and species diversity observed in East Jakarta presented in Table 6. Observation in 23 road side green belts found 7,996 trees that consisted 1,011 trees (12.6%) old trees. Relatively higher population recorded in some long roads and having tree in median such us Jl. I Gusti Ngurah Rai (1,664 trees), Jl. Pemuda (1,174 trees), Jl. Ahmad Yani (1,110 trees), Jl. Pramuka (878 trees), Jl. DI Panjaitan (428 trees), dan Jl. Sutoyo (423 trees). Old trees spread in all roads, except in Jl. Cipinang Baru Raya, Jl. Cipinang Elok II, and Jl. Matraman Raya.

The diversity of species in East Jakarta that showed by the number of species in each observed roads varied from 2-37 species. Only several species found dominant in the roadside green belts in East Jakarta. *Swietenia mahagoni was dominant in 9 roads*, *Mimusops elengi* was dominat in 7 roads, *Pterocarpus indicus* was dominant in 4 roads. *Ficus benjamina, Areca catecu,* and *Mangifera indica* was dominant in 1 roads, respectively.

Tabel 6. **Tree population and dominant species in the roadside green belts in East Jakarta**

No.	Name of road	Number of trees	Number of old trees	Proportion of old Tree (%)	Number of species	Species dominancy	
						Name of species	%
1	Jl. Ahmad Yani	1,110	152	13.7	37	*Pterocarpus indicus*	36.8
2	Jl. Bekasi Timur Raya	410	130	31.7	9	*Swietenia macrophyla*	26.1
3	Jl. Bujana Tirta Bea Cukai	191	13	6.8	15	*Swietenia macrophyla*	74.9
4	Jl. Cipinang Baru Raya	111	0	0.0	10	*Mimusops elengi*	76.6
5	Jl. Cipinang Cempedak 1	46	40	87.0	3	*Swietenia macrophyla*	93.5
6	Jl. Cipinang Cempedak 2	67	42	62.7	8	*Mimusops elengi*	47.5
7	Jl. Cipinang Cempedak Raya	2	2	100.0	2	*Mangifera indica*	50.0
8	Jl. Cipinang Elok I	34	5	14.7	9	*S. macrophylla*	50.0
9	Jl. Cipinang Elok II	30	0	0.0	4	*Swietenia macrophyla*	76.7
10	Jl. Cipinang Muara	32	9	28.1	6	*Pterocarpus indicus*	71.9
11	Jl. Dewi Sartika	240	2	0.8	10	*Pterocarpus indicus*	57.9
12	Jl. DI Panjaitan	428	62	14.5	16	*Swietenia macrophyla*	46.7
13	Jl. I GustiNgurah Rai	1,664	179	10.9	25	*Mimusops elengi*	17.1
14	Jl. Jatinegara Barat	8	1	12.5	3	*Ficus benjamina*	34.0
15	Jl. Jatinegara Timur	291	24	8.2	16	*Areca catecu*	75.0
16	Jl. Matraman Raya	370	0	0.0	23	*Mimusops elengi*	37.6
17	Jl. Otto Iskandardinata	213	112	52.6	6	*Pterocarpus indicus*	81.7
18	Jl. Pemuda	1,174	135	11.5	27	*Swietenia macrophyla*	53.6
19	Jl. Pramuka	878	33	3.8	15	*Pterocarpus indicus*	40.5
20	Jl. Raya Ceger	43	4	9.3	10	*Swietenia macrophyla*	67.4
21	Jl. RSU Persahabatan	173	8	4.6	10	*Mimusops elengi*	59.5
22	Jl. Sutoyo	423	18	4.3	24	*Swietenia macrophyla*	30.3
23	Jl. Urip Sumoharjo	57	40	70.2	4	*Pterocarpus indicus*	71.9
	Total	7,996	1,011	12.6			

3.7. Tree Population and Diversity in South Jakarta

Population and diversity of trees in the roadside green belt in South Jakarta presented in Table 6. All trees observed in 23 roadside green belts were 4,709 trees that consisted of 998 (21.1%) old trees. The roads having relatively higher population of trees including Jl. Pangeran Antasari (834 trees), Jl. Satrio (772 trees), Jl. Margasatwa (353 trees) dan Jl. Minangkabau (333 trees), Jl. Ragunan (313 trees), Jl. Manggarai Utara (210 trees) and Jl. Gunawarman (208 trees).

Old trees in South Jakarta found on all observed road, except on Jl.Hadiah Utama and Jl. Jelambar. Proportion of old trees was widely different, from 1.3% in Jl. Gajah Mada to 78.3% in Jl. Pal Merah Utara.

Number of species in each observed roads varied, from 3 species in Jl. Gerbang Pemuda TVRI to 34 species in Jl. Manggarai Utara. The 5 most highest number of trees using in the green belts in South Jakarta including *Swietenia macrophylla* (1,381 trees), *Mimusops elengi* (1,002 trees), *Pterocarpus indicus* (460 trees), *Polyalthea fragrans* (375 trees), and Ryostonea regia (198 trees).

Few species dominated each observed road side green belts. *Swietenia macrophylla* was dominant in 11 roads, *Mimusops elengi* was dominant in 7 roads, *Pterocarpus indicus* was dominant in 2 roads, *Polyalthea fragrans*, *Polyalthea longifolia*, and *Ryostonea regia* was dominant in 1 roads, respectively.

Tabel 7. **Tree population and dominant species in the roadside green belts in South Jakarta**

No	Name of road	Number of trees	Number of old trees	Proportion of old Tree (%)	Number of species	Species dominancy	
						Name of species	%
1	Jl.Ciragil	129	40	31.0	29	*Swietenia macrophyla*	46.5
2	Jl. Daha	130	32	24.6	18	*Ryostonea regia*	31.5
3	Jl. Daksa	118	16	13.1	22	*Mimusops elengi*	20.4
4	Jl. Galuh	165	16	9.6	18	*Mimusops elengi*	41.2
5	Jl. Gerbang Pemuda TVRI	79	48	60.8	3	*Pterocarpus indicus*	59.4
6	Jl. Gunawarman	208	38	18.3	15	*Swietenia macrophyla*	37.9
7	Jl. Margasatwa	210	62	29.5	18	*Mimusops elengi*	60.4
8	Jl. Manggarai Utara	353	29	8.2	34	*Swietenia macrophyla*	45.8
9	Jl. Mataram Barat Timur	30	17	56.7	8	*Swietenia macrophyla*	56.6
10	Jl. Minangkabau	333	33	9.9	10	*Swietenia macrophyla*	64.2
11	Jl. Pangeran Antasari	834	301	36.0	21	*Swietenia macrophyla*	25.6
12	Jl. Panglima Polim II	102	13	12.8	22	*Mimusops elengi*	47.0
13	Jl. Panglima Polim III	129	48	37.2	16	*Swietenia macrophyla*	18.8
14	Jl. Pejompongan	70	46	65.7	6	*Swietenia macrophyla*	92.8
15	Jl. Polombangkeng	50	21	35.0	12	*Mimusops elengi*	26.6
16	Jl. Ragunan	313	42	13.4	28	*Swietenia macrophyla*	35.1
17	Jl. Rajasa	188	28	14.9	29	*Mimusops elengi*	27.1
18	Jl. Sanjaya	134	26	19.3	29	*Pterocarpus indicus*	19.2
19	Jl. Satrio	772	20	2.5	22	*Swietenia macrophyla*	28.2
20	Jl. Sriwijaya	187	60	32.3	28	*Mimusops elengi*	51.3

21	Jl. Walter Mongisidi	81	51	63.0	7	*Swietenia macrophyla*	24.6
22	Jl. Wijaya Kusuma I	35	6	17.1	7	*Mimusops elengi*	34.2
23	Jl. Wijaya Kusuma Raya	50	5	10.0	15	*Mimusops elengi*	42.0
	Total	**4,709**	**998**	**21.2**			

4. CONCLUSION

Research on trees in 113 roadside green belts in 5 municipals in Jakarta found 25,706 trees. The diversity of trees in the roadside green belt was high that be performed by the variety of trees species. It's found 120 species, however only few species have a high dominancy. It's found 10 tree species having a high population in the road side green belts including *Swietenia macrophylla* (4,779 trees), *Pterocarpus indicus* (4,531 trees), *Mimusops elengi* (3,532 trees), *Polyalthea fragrans* (2,104 trees), Cerbera manghas (1,351 trees), *Diallium indum* (939 trees), *Ryostonea regia* (658 trees), *Polyalthea longifolia* (628 trees) and *Bauhinia* purpurea (407 trees).

Tree population observed in the road side consisted of young and old trees. In this research, number of old trees was found totally 4,087 trees (15.9%) and the rest was young trees (84.1%). Especially to the old trees cautions must be stressed to ensure the safety of trees to road user.

Type of trees used in roadside green belts in 5 municipals of Jakarta represent variety of plants groups. Its found palms, needle leaf plants, beautiful blossom trees, leaves attractive trees, aromatic tree, and fruit trees.

Number of tree species planted in each roads ranged from 1 – 26 species in Central Jakarta, 1- 49 species in west Jakarta, 1-36 species in north Jakarta, 1-37 species in east Jakarta, and ranged from 3-34 species in south Jakarta. Generally in each road found a dominant species. Observation on 113 roads found that *Pterocarpus indicus* was dominant in 31 roads, *Swietenia macrophylla* was dominant in 34 roads, *Mimusops elengi* was dominant in 17 roads, *Polyalthea fragrans* was dominant in 8 roads, *Ficus benjamina*, *Cerbera manghas*, *Ryostonea regia*, and *Cocos nucifera* was dominant in 3 roads respectively. The next species was dominant in 1 road including *Canarium communae*, *Tamarindus indica*, *Khaya senegalensis*, *Ficus lyrata*, *Samanea saman*, *Diallium indum*, *Areca catecu*, and *Mangifera indica*. Each tree species having a high dominancy provide strongly the identity of roadscape. Various species using in the road side as a linear mass planting also enhanced the functions of road side green belts in creating a comfortable and beautiful road and its surrounding.