

Graduate Program in Sustainability Science

Global Leadership Initiative

Graduate School of Frontier Sciences

THE UNIVERSITY OF TOKYO

2018

Master's Thesis

A Landscape History of *Kampung* and Its Potential Sustainability

Function: A Case Study of Jakarta

Submitted February 28, 2019

Adviser: Professor Makoto Yokohari

Co-Adviser: Lecturer Toru Terada

MUHAMMAD AZKA GULSYAN

A Landscape History of *Kampung* and Its Potential Sustainability Function:

A Case Study of Jakarta

© 2019 by Muhammad Azka GULSYAN

All rights reserved.

DECLARATION

I hereby certify that this thesis is my own manuscript, and the sources of the materials used have been duly acknowledged. I declare that this work has not been submitted to any other institution for the award of any academic degree, diploma or certificate. Any part of this thesis will not be reproduced without accurate acknowledgements.

.....

.....

Name

Signature

.....

Date

ABSTRACT

The Sustainable Development Goals (SDGs) recognized that upgrading of the urban slums or informal settlements as one of the targets that should be attained in order to achieve global sustainability. In Indonesia and other Southeast Asian cities, the urban slums and informal settlements could be found in the vernacular areas of the cities called kampung. Many negative attributes which embedded to the kampung as slums and informal settlements, and thereof, as a source of problems to the cities, are well recognized in existing literature. However, the historical exploration of the kampung evidently indicated that kampungs potentially conceive sustainability functions for the cities. In a period of time in the past, kampungs were functioned as urban and peri-urban agriculture (UPA). While the UPA is has been recognized to have considerable functions in supporting sustainability and resiliency of the cities. Therefore, restoring the UPA function of the kampung could make it functionates for supporting urban sustainability and resiliency. The problem is, currently it is still unknown how the UPA was gone from the kampung in the past. Therefore, this research aims to understand the process of change and continuity of UPA of the kampung.

The attempt to reveal the process was done by utilizing the research approach of landscape history. Jakarta Metropolitan Area was the case study in this research. The landscape history approach was implemented in two spatial levels, the regional level (the whole Jakarta region in general) and the local level (on the specifically selected kampungs). The materials collected for the regional level were historical literature and historical maps, which collected through library surveys. The historical literature was collected from library surveys in various public and private libraries in Indonesia, while the historical maps were collected from the digital collection of Leiden University and cartography collection National Archive of Indonesia. Those collected materials were analyzed by the historical land-use

analyses to reconstruct the past landscape. For the local level, the data collection was through oral history interviews. In total, 50 respondents, mostly the local elders, from five selected case studies kampungs were interviewed. The collected information from the oral history interviews was analyzed by the retrospective analysis to comprehend the lifespan of landscape elements of selected kampungs.

Based on the evidence from historical literature and maps, together with the oral history, the result showed that the relationship between the kampung and agriculture is developed in four stages. In the first stage which we named it the stage 1- rural kampung, the kampung was a rural settlement which located in the vicinity of the city. The kampung in this stage is dominated by agriculture and rural way of life. Afterward, as the city keeps expanding and reach the immediate space from kampung and even takes some part of the surrounding landscape of the kampung, the kampung and the city is stand side by side. Thus, economically and socially, the urban domain starts to infiltrate the kampung and the kampung become socio-economically mixed between rural and urban domains. The agriculture which exists in this stage then functioning as peri-urban agriculture. This stage is labeled as stage 2 – first desakota kampung. In the next stage, which is labeled as stage 3 – second desakota kampung, the kampung lose its surrounding rural landscape for urban development and is enclosed by urban built-up. However, inside the settlement area of the kampung, between the houses, there are still some vegetable gardens, home gardens, and many fruit trees, and people run livestock or poultry farm. Practically, the agriculture in the kampung at this stage functioning as urban agriculture. But finally, in the last stage which is labeled as stage 4 – urban kampung, the kampung lose all of its agricultural domain, losing its desakota character, and totally urbanized. As the result, the environment is deteriorated and the kampung transformed to be slums.

The understanding of the four stages of kampung reveals that if we do not do any intervention and let the kampung transformed as urbanization is occurring, then the kampung would be transformed to be slums, which as mentioned in the target and indicator of Goal 11 SDGs, a form of unsustainable situation. However, the result also reveals that before the kampung transformed to be slums, they were in the stages of an urban-rural mixture (desakota). Those stages are more sustainable alternative forms of the kampung, stages where there is co-existence of urbanization with agriculture presence. Therefore, by knowing the four stages of kampung, we could argue that planning regulation should protect kampungs to stay in stage 2 or 3 even though the urban areas keep expanding. Yet, for the kampung which already deteriorated in stage 4, the upgrading effort should be based on agrarian urbanism, as historically agricultural-urban mixture was the main feature of the kampung. By that historically rooted upgrading, perhaps we could create new agrarian urbanism in the kampung of future which could functionate as the UPA of the city and could play important role in supporting sustainability and resiliency of the city. Therefore, even though presently the kampung is part of the problem as slums and informal settlements in Jakarta and some other Southeast Asian cities, by this landscape history exploration, we revealed that kampung conceals the potentiality to perform sustainability functions.

Key words: Kampung, Landscape history, Urban and peri-urban agriculture, Urban-rural mixture

ACKNOWLEDGEMENTS

I would like to express my gratitude firstly to my advisor for two years of my Master's study and research, Makoto Yokohari *sensei*, from whom during the guidance process I acquired many inspirations for this research and beyond. By the same feeling, I also would like to express my gratitude to my co-advisor, Toru Terada *sensei* for all of his guidance.

This research acknowledges the support from the *Lembaga Pengelola Dana Pendidikan* (LPDP) of Ministry of Finance Republik Indonesia for a very generous scholarship which made possible the work of this thesis research.

I need to appreciate all of the respondents in the kampung of Slipi, Jagakarsa, Pasir Putih, Mustikasari, and Sukahati who sincerely helped my research during my fieldworks. Most of them are good-hearted elders full of life experience, which my dialogue with them leaving sweet memories to me and inspired me on how I see at the world.

My appreciation to the whole faculty members, department staffs, fellow students, friends in GPSS-GLI and other elements in the University of Tokyo, which through their own ways, directly or indirectly, helped me to complete this research.

Finally, I deeply indebted to my family for their continued support, encouragement, and *du'a* (prayer). Above all, I thank the Almighty God, Allah *Subhanahu wa Ta'ala*, for granting me *hikmah* (wisdom) and *'ilm* (knowledge) to complete my study and research.

DEDICATION

To my mother, all of this is for.

TABLE OF CONTENTS

LIST OF TABLES	xi
LIST OF FIGURES	xi
CHAPTER 1: INTRODUCTION	1
1.1. Background.....	1
1.1.1. Reconsidering Kampung.....	1
1.1.2. Urban and Peri-urban Agriculture, Kampung, and Sustainability.....	3
1.2. Problem Statement.....	7
1.3. Aim and Objectives.....	8
1.4. Structure of the Study.....	8
CHAPTER 2: METHODOLOGY	10
2.1. Approach and Framework.....	10
2.2. Study Area.....	11
2.3. Data Collection.....	13
2.3.1. Historical Literature and Maps.....	13
2.3.2. Oral History.....	14
2.3.2.1. Consideration Behind Oral History Case Studies Selection.....	16
2.4. Data Analysis.....	17
2.4.1. Critical Method in History	18
2.4.2. Qualitative Coding Process.....	19
2.4.3. Historical Land-use Analysis.....	22
2.4.4. Retrospective Analysis.....	22
CHAPTER 3: RESULT	27
3.1. The Four Stages of Kampung.....	27

3.2. Evidences from Historical Literature and Maps.....	32
3.2.1. Stage 1 – Rural Kampung.....	32
3.2.2. Stage 2 – First Desakota Kampung.....	39
3.2.3. Stage 3 – Second Desakota Kampung.....	44
3.2.4. Stage 4 – Urban Kampung.....	48
3.3. Evidences from Oral History.....	51
3.3.1. Retrospective Analysis of Each Case Study.....	52
3.3.2. General Picture of Kampung Four Stages from All Cases.....	61
CHAPTER 4: DISCUSSION.....	67
4.1. Practical Discussion: Restoring Kampung, Applying UPA	67
4.2. Theoretical Discussion.....	70
4.2.1. Kampung, Layered Model, and Sustainability.....	70
4.2.2. Kampung and Desakota.....	72
4.3. Limitation of the Study Kampung and Desakota.....	76
CHAPTER 5: CONCLUSION.....	78
REFERENCES.....	82
APPENDIXES.....	88

LIST OF TABLES

Table 1	Kampung Case Studies.....	15
---------	---------------------------	----

LIST OF FIGURES

Figure 1	General framework of methodology.....	11
Figure 2	Kampung case studies Location.....	16
Figure 3	Qualitative coding process	21
Figure 4	The indicators of kampung four stages for oral history cases	26
Figure 5	Schematic illustration of kampung conceptual definition.....	28
Figure 6	The four stages of kampung development model illustration.....	29
Figure 7	An example picture illustrates the European structure of Batavia in the initial stage.....	34
Figure 8	An example picture illustrates the isolated structure of Batavia in the initial stage.....	35
Figure 9	Kampung in the nineteenth century.....	36
Figure 10	The layered economy model found in kampung.....	42
Figure 11	A model of kampung in 1918 by H. Witkamp with addition by author.....	44
Figure 12	A sketch map of Kampung Slipi in 1975s with addition by author.....	47
Figure 13	The condition of Kampung Kebun Kacang in 1985s.....	50
Figure 14	A sketch map of Kampung Kebon Sirih in 1975s.....	50
Figure 15	The retrospective analysis of Kampung of Slipi.....	54
Figure 16	The retrospective analysis of Kampung of Jagakarsa.....	56
Figure 17	The retrospective analysis of Kampung of Pasir Putih.....	58

Figure 18 The retrospective analysis of Kampung of Mustikasari.....	59
Figure 19 The retrospective analysis of Kampung of Sukahati.....	61
Figure 20 Case studies kampung stages in 1940s.....	62
Figure 21 Case studies kampung stages in 1960s.....	62
Figure 22 Case studies kampung stages in 1985s.....	62
Figure 23 Case studies kampung stages in 1995s.....	63
Figure 24 Case studies kampung stages in 2005s.....	63
Figure 24 Case studies kampung stages in 2015s.....	63
Figure 25 Stages of case studies kampung in space-time dimension.....	63

CHAPTER 1: INTRODUCTION

Urban slums and informal settlements in Indonesia and other Southeast Asian cities could be found in the vernacular areas of the cities called kampung. One point of view which remain rarely explored on the study of kampung is the point of view of agrarian roots of kampung. Some historical studies of kampung has indicated that kampung in a time functioned as urban and peri-urban agriculture (UPA) of the cities, which thence contributing to the sustainability and resiliency of the cities. By taking Jakarta as a case study, this research focuses to dig into the landscape history of kampung in order to understand the origin and decline of the agriculture in kampungs, which by so could explain a history of UPA in Jakarta.

1.1. Background

1.1.1. Reconsidering Kampung

In the Sustainable Development Goals (SDGs), on the goal 11 which is “sustainable cities and communities”, upgrading the slums, where 883 millions of urban population lived, of is one of the targets that need to retain in order to achieve global sustainability (UN, 2015, 2018). In some of the Southeast Asian cities, including Jakarta, our case study, the urban slums and also informal settlements could be found in the vernacular areas of the cities called kampung (Korf, 1996).

This status of kampung has made many scholars trapped in to equalize kampung *as* slums¹. Some defined kampung by its poor social infrastructure, utility, and sanitation. Djauhari (1969 in Krausse, 1975) described it as “...whose streets are not necessarily paved and are only about three meters wide with open drains on each side...”. Silas (1983, in Pele 2013) described kampung by saying “a community in a place...but there is not available

¹ A complete list of available definitions of kampung in existing literature could be found in the appendix A.

adequate physical and social infrastructure...”. But, he declined to say it as “slums”, in his argument, because of historical rights of kampung, while the definition he posed refer the definition components of slums. Other scholars consider similar things to the kampung, by defining it as an area that is “unserved”, “not good physical condition”, “do not has infrastructure, utility, and social facility”, “without infrastructure”, “lacking any sanitary infrastructure”, or “poor quality building with poor access to utility” (Nick Devas, 1981, Rutz, 1987 in Pele 2013, Yudohusodo, 1991 in Pele, 2013, Antony, 2004, C. Silver, 2007, Supriatna, Andri & Paul van der Molen, 2014). From those scholars who support ‘poor infrastructure’ idea to define the kampung, some of them accompanied that idea by also labeled the kampung as “unplanned areas”, which by that way, they tried to rationalize why the kampung is attached with poor infrastructure. In line with that, another way to define the kampung is by describing it as a settlement of low-income population (Silas, 1983 in Reering, 2016, Rutz, 1987 in Pele 2013, Yudohusodo, 1991 in Pele, 2013, Ford, 1993, Murray, 1995 in Pele, 2013, Lubis ..., in Krause, 1975). All of those definitions—I would say, pejorative definitions—of kampung amplified the dominant existing understanding of kampung as an undesirable area of the city. No wonder, by arguing as an effort to provide a better environmental quality of the city, sometimes eviction becomes an option taken by the government in dealing with kampungs².

This research attempted to not fall into that mainstream understanding, and try to reconsider the kampung. There are two reasons we why have to do this. First, the understanding of kampung in that way explained in the previous paragraph is susceptible to critics. The way they understood kampung is static, capturing only the kampung at the moment without considering enough for a teleological view. If the kampungs which were part of their case studies—which at that moment were in poor condition (poor infrastructure,

² As captured by some media reports, e.g. “Violent clashes during East Jakarta slum eviction” (2015)

unplanned, and the inhabitants were low-income population)—in the future with some effort could be regenerated to become settlements with perfect infrastructure, well planned, and prosperous inhabitants, then all those definitions will not make sense anymore. Similarly, for the opposite direction, was the kampung in the past really in that poor physical and socio-economic condition? If it was not, then their understanding of kampung also rejected. This last point is connected to our second reason, i.e. the history. We argued that we need to look at the history carefully to get a more complete picture of kampung, and thereof possibly provides a different face of the kampung. This is what endeavored by this research to reconsider the kampung, that is, reconsidering the kampung through history.

The history about kampung, indeed, has been discussed in other places. However, we still encounter some deficiency on it. Most of them did not put kampung as their main objects of studies. Kampung was only discussed as part of their elucidation of Jakarta history in more general³. Furthermore, in the past literature which studied kampung history—including the ones who focus to kampung as main research object—there remained shortcoming because, in our best observation, none of them concentrate on the landscape of kampung, or in another word, in the landscape history of kampung. Therefore, the history of kampung that is studied in this research is specific to the landscape history⁴. One attempt of this research is, then, to provide a different perspective of kampung from the present negative perspective on it; reconsidering the kampung, by exploring its landscape history.

1.1.2. Urban and Peri-urban Agriculture, Kampung, and Sustainability

Up to this point, we have elaborated the need and reason to reconsider our understanding of kampung to not fall into mainstream negative perspective on it, which

³ An exception is perhaps from Jellinek (1985), who focused her historical study to the kampung, yet, the kampung in her study is considered—as what he had elaborated above—as a poor settlement.

⁴ A more detail explanation of landscape history will be provided in Chapter 2.

endeavored through a study on the landscape history of kampung which remains absent in the literature. Indeed, by picking out this position, do not mean we become a devotee of it and ignore to hold critical perspective on kampung. Thus, what we need to elaborate in this point is about what aspect of the landscape of kampung which has not been explored enough because enclosed by the dominant negative conception on it that could bring out some merit for the city and its surrounding. It is not our intention to nullify all the negative perspective on kampung which has studied a lot in previous literature, but, by revealing the aspect of kampung which is opposite perspective to this dominant view, we argue, could construct a more comprehensive perspective on it instead.

The aspect what we meant above is agriculture. There some rationale why we need to focus on this aspect to do our task. There is a developed conception about kampung which perceived it as the area where lived by a transitional community from rural to urban. According to Williams (1975, in Paresthu, ...), kampung in the city is “evolved from a compressed rural village...into the expanding city” (similar argument by Taylor, ... in Pele, 2013; Evers, 1985 in Pele, 2013). Thereof, in that kampung which then spatially part of the city or on its immediate vicinity, "there are transition[s] from village way to the urban way of life" (Herlianto, 1986 in Pele, 2013). But, as argued by Friedman (in Widyapura, 1979, from Pele2013), those people who originated from the rural village are “hard to adjust to the routine of the city”. Therefore, as argued by some scholars, on kampungs, the rural characters were preserved. Moreover, some scholars attempted to coined a new term to explain this urban-rural ambiguous nature of kampung—partly as an effort to find a better term in English to translate the term kampung from Bahasa Indonesia/Malay—by named it as ‘urban village’ (Ever, 1985 in Pele, 2013; Funo et al, 2002; C. Silver, 2007; Cairns & Friedrieck, 2014; Supriatna, Andri & Paul van der Molen, 2014; Karsten, ... in Krausse, 1975; Krausse, 1975; Atman, 1975). Others tried to explain this phenomenon, by describing the kampung as “urban

reinterpretation of rural life patterns” (Atman, 1975) or “the urban version of the rural village (or *desa*)” (Silver, 2007).

If we elucidate further the rural characters of *kampung* mentioned above, they actually referred to the agrarian way of life, where, certainly, the agricultural landscape is one of its foundations (see Herlianto, 1986 in Pele, 2013). In this point, we are moving into the agricultural landscape as our focal point on this landscape history study of the *kampung*. Agriculture does have strong relation with *kampung*. Our preliminary reading on historical maps of Batavia⁵ indicated that in the late colonial period (beginning of 20th century), almost all the *kampung* zones, despite they were located on the immediate vicinity of the colonial city or even some were interspaced inside the colonial urban fabrics, were surrounded by or adjoined with agricultural landscape, mostly paddy fields. Therefore, it is not a peculiar condition if, a study from 1981 by H.D. Evers show that in Jakarta up to that year there were still considerable numbers of agriculture subsistence production. In the middle of a big city, which at that time populated by nearly 6 million population, subsistence production contributed to the average 18 percent of total household consumption, indicating the considerable amount of agricultural landscape. At that time, according to that study, subsistence production was in the third position for urban economy sector next to formal and informal sectors. Not a coincidence, at that time, some 80 percent of Jakarta population lived in the *kampungs*.

Nowadays, agriculture indeed is hardly found in the central area of Jakarta anymore. Yet, in the more periphery area of Jakarta, the considerable amount of agricultural lands remain there. The urban built-up areas of Jakarta have been expanded rapidly since the 1970s, as according to Rustiadi et al (2015), the urban built-up areas in 2012 is 31-folds of the area in 1972. The urban areas centralized in Jakarta now thus has expanded and exceeded

⁵ See some historical maps e.g. *Batavia en Omstreken* (1914), *Kaart van Batavia en Omstreken* (1897).

the administration boundary, also been conurbation with surrounding satellite city, generated what then called Jakarta Metropolitan Area (or the official local term is Jabodetabek, from abbreviation of Jakarta and the names of eight surrounding cities and regencies)⁶. However, the urban expansion produced a distinct pattern where, as observed by McGee in 1991, there appeared the area where urban and agricultural activities are mixed, which he labeled it as *desakota*⁷. Again, most possibly, those mixture areas are created from the rural villages, which compressed by the urban expansion, become the kampung (in a sense, the urban villages). This *desakota* phenomenon is another indication that agriculture is close with the urbanization of Jakarta where kampung is ubiquitous. Therefore, a study to discover how that process actually worked is still undiscovered by present literature—another reason for this research to dig into the landscape history of kampung landscape for the aspect of its agriculture.

The presence of agriculture on the landscape of kampung in which located inside and in the surrounding of the city of Jakarta, pointing out that there is a relation between kampung and urban and peri-urban agriculture (UPA). It is a new argument in the existing studies of kampung which will be the main argument of this research. The main findings of this research elucidate this side of kampung by elaborating a landscape history of it. The UPA is an important feature of the city for sustainability. It has been studied in other places, that the presence of agriculture inside and in the surrounding of the city could bring ecological, socio-cultural, and economic function which essential in supporting the sustainability of the urban area (Yokohari et al, 1994; Yokohari et al, 2000; Lennartson, 2005; Iles, 2005; Paxton, 2005; Giradet, 2005; Viljoen, 2005; Bohn, 2005; Pribadi and Pauleit, 2015, 2016;). In ecological function, UPA could provide wildlife and ecosystem protection, microclimate, air control,

⁶ But in this study, because we are doing historical study where in each period the limit of urban areas is different, we will mostly just call this metropolitan area as 'Jakarta', refer to the whole urbanized area centralized in Jakarta which different according to the period we discuss.

⁷ Coined from Indonesian, *desa* means rural, *kota* means urban.

soil and land conservation, and water control function. For social and cultural function, the UPA could provide scenery, education, and amenity for urban residences. In economic, UPA could provide jobs and income for the poor population, and supporting food security and affordability. Furthermore, UPA would have more important roles during the extreme events, such as natural disaster (Sioen et al, 2018) or economic crisis (Pribadi and Pauleit, 2015, 2016), which means, it would support the resilience of the city.

By exploring a long relationship between kampung and UPA in the landscape history of it, we could reveal the positive side of kampung which perhaps has a substantial potency to bring benefit to the city i.e. supporting sustainability and resiliency of the city—surely, without neglecting the effort to eradicate all the negative sides which still haunt the kampungs today. Presently, the utilization of UPA to support sustainability and resiliency of the city has been recognized by the city government of Jakarta, however, the way they plan to plant UPA in the city is opting the generic solution from overseas examples, particularly the western cities⁸. If the kampung is really has a strong connection with UPA on its landscape, then, it should be a better practical option as a vernacular solution for implementing UPA. Therefore, what we do by this research is exploring the landscape history of kampung to understand the origin and decline of UPA in Jakarta, to reveal the unexplored role of kampung as a vernacular contributor for the sustainability and resilience of the city.

1.2. Problem Statement

Urban slums and informal settlements are one of the problem of the cities which need to be tackled in order to achieve global sustainability, as stated in SDGs. In Southeast Asia, particularly our case study Jakarta, the slums and informal settlements could be found on the vernacular areas of the kampung. Thus, the kampung is perceived as sources of the problems

⁸ see Jakarta Urban Agriculture Grand Design 2018-2030 (2017).

to the city, as has been discussed in various literature mentioned above. However, the initial historical exploration showed that agriculture was present in the kampung in a period of time in the past and possibly functioned as UPA. The UPA itself has been recognized to have economic, social, and environmental functions which could support sustainability and resiliency of the cities. Thence, restoring the agriculture in the kampung to be functioning again as UPA, could reveal the potential sustainability function of the kampung to the city. Yet, the restoration is not possible without understanding how the landscape of UPA was gone from the kampung, which the explanation in the present literature remains absent. Therefore, a landscape historical exploration is needed to understand how the process was.

1.3. Aim and Objective

Aim: To understand the process of change and continuity of UPA in the kampungs of Jakarta. With two objectives:

1. To discover the existence of UPA in the kampungs of Jakarta in the past.
2. To explain the stages of the change and continuity of UPA in the kampungs of Jakarta.

1.4. Structure of the Study

Chapter 1 provides the background information on the study of kampung and UPA Jakarta, which also elaborate the past study about it from literature. It followed by providing the problem statement and continued by outlining the aim and objective of the study. Chapter 2 provides the methodology. This chapter provides an explanation of the approach and framework, study area, data collection, and data analysis process. Chapter 3 provides the result of the research. It is structured first by an explanation of the four stages of kampung model as the main argument built on this research, followed by providing evidences from historical literature and maps, and evidences from oral history. Chapter 4 is the discussion

section. It discusses the practical discussion followed by a theoretical discussion after given the four stages model of the kampung. The thesis closed by chapter 5 which provides the conclusion of the research.

CHAPTER 2: METHODOLOGY

This chapter will explain the materials and methods of the research. First, we will explain the general approach and framework. It will be followed by an explanation of the study area. Next, the data collection part will explain the types of data, how are the collection processes, when, where, and who are the data sources, and how many data we have collected. Before in the final part, we will explain how we analyzed our data by explaining the analysis methods that we used.

2.1 Approach and Framework

The general approach which utilized in this research was landscape history. The term landscape means "...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Council of Europe, 2000, in Antrop, 2004). While the term history by Oxford Dictionary (2018) defined as "the study of past events, particularly in human affairs." Thereof, we could define landscape history—as a research approach—to be an approach that study or apprehending the past of an area which resulted from the action and interaction of natural and human factors. This approach could be considered as a trans-disciplinary approach as try to cross two matured disciplines: landscape study and history.

By utilizing this approach, we also contribute to the collective effort to solve present and future sustainability problem—the problem that we tried to solve in sustainability science. First of all, this approach is mainly to understand the historical depths present in the modern landscape (see Rippon and Turner, 1993 and Rippon, 2012 in Karro, 2014). Thus, the perspective used in this approach is, as explained by Marcucci (2000), that "a landscape existing today are results from previous conditions and events, and it follows that landscapes of the future will be legacies of the elements and processes occurring today." Therefore, to

solve the present sustainability problem—particularly sustainability issues related to the landscapes—for obtaining a sustainable future, we need to understand the past to direct our present decision for the future.

Altogether, we used landscape history approach to understand the past of a landscape phenomenon, which was the urban and peri-urban agriculture in the landscape of kampung. For this, we did several data collections and data analyses. The general process or framework is explained in figure 1.

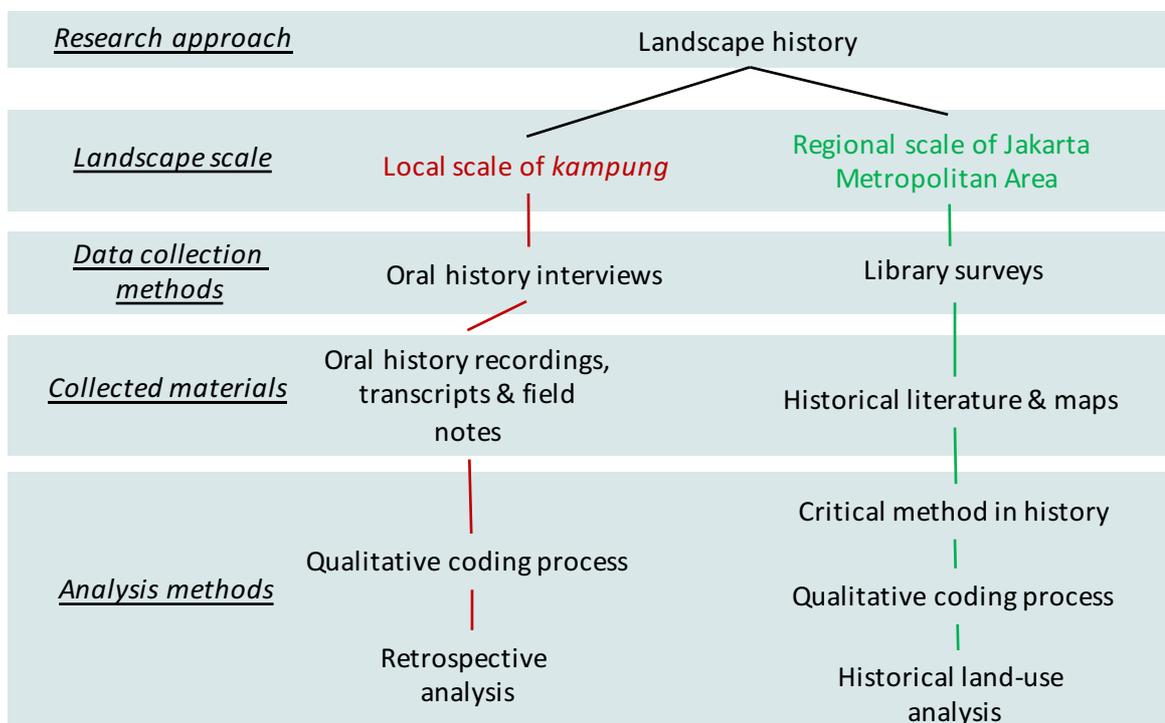


Figure 1. General framework of methodology (source: author)

2.2 Study Area

The study area for this research is Jakarta Metropolitan Area (JMA). In Indonesia, it is well known by its abbreviation, “Jabodetabek” for Jakarta-Bogor-Depok-Tangerang-Bekasi, which refers to the Jakarta as the primary major city as well as the capital city of Indonesia, and eight municipalities (cities and regencies) surrounding it which compose a single immense metropolitan area. Those eight surrounding municipalities consist of Bogor city,

Bogor regency, Depok city, Tangerang city, South Tangerang city, Tangerang regency, Bekasi city, and Bekasi regency. In total, it covers an area of 6,256km², and its population is 27.96 million (2010), distributed over 183 sub-districts and over 1,495 villages (2011) (Rustiadi et al, 2012 in Pribadi and Pauliet, 2015).

For the environments, particularly which related to the suitability for agriculture, the northern part comprised of an alluvial zone and mountainous areas can be found in the southern part. There two main watersheds which pass the area from south to north: Ciliwung and Cisadane, which branch out into of several rivers. Make this region naturally a decent place for agriculture practices (Pribadi and Pauliet, 2015).

JMA is considered as a suitable study area for the study of the agriculture inside and on the surrounding of the city because according to Pribadi and Pauliet in 2015, approximately 76.4% of neighborhoods in JMA's peri-urban regions have a typology of an urban-rural mixture. It was counted by looking to the number of neighborhoods which are "mixed built up and non-built up area", contrasted with number of neighborhoods which only built-up areas (for urban areas) or only non-built up areas (for rural areas), where both of them in sum only cover 23.6% of JMA's peri-urban. The number of urban-rural mixture neighborhoods is also constantly increasing from only 19.0% in 1972 to the present number.

Furthermore, according to a report from Research Institute for Humanity and Nature, Kyoto, Japan in 2014, data from Land Scan suggested that Jakarta Metropolitan Area is the second most populated metropolitan areas in the world—just behind Tokyo metropolitan area. This immense size of JMA makes it an important metropolitan area in the world to be understood, particularly for its distinct features of urban-rural mixture phenomena.

2.3 Data Collection

There are two categories of historical data sources collected in this research. The first one is historical literature and maps. The intention to collect this kind of historical information is to explore the general states of urban-rural mixture history of kampung in JMA. The second one is oral history. Oral history information is collected in five kampungs inside JMA to understand the urban-rural mixture phenomenon in more detailed nature.

2.3.1 Historical Literature and Maps

The historical literature and maps were collected through systematic libraries and archives surveys. For the historical literature survey, the selection of the literature was based on two bibliographies/catalogs and surveyed several libraries in Jakarta. The first bibliography/catalog was a bibliography of Jakarta literature, “Batavia, 1600-2000: A Bibliography” created by Ebing and de Jager (2000). It is an extensive bibliography which contains over 5.000 titles classified into 42 categories; covering books (vast majorities) and articles in several languages—mostly are in Indonesian, Dutch, and to a lesser extent English, but listed publication is also written in French, Chinese, German, Japanese, Russian and others—about Batavia-Jakarta from 1600 to 2000 (see description in KITLV, 2014). Secondly, we based our historical literature survey on the Catalogue of National Library of Indonesia. It is the largest library in Indonesia, and arguably, the most complete library which contains literature about the history of Jakarta. Hereafter, we chose titles in the bibliography and catalog which related to our research questions. The keyword in our searching process are: “Batavia”, “Jakarta”, “Batavia/Jakarta history”, “Batavia/Jakarta urban”, “Batavia/Jakarta peri-urban”, “Batavia/Jakarta urban development/planning”, “Batavia/Jakarta agriculture”, “Batavia/Jakarta Environment”, “Batavia/Jakarta kampung”, “Batavia/Jakarta rural” “Batavia/Jakarta economy”, “Batavia/Jakarta socio-culture”,

“Batavia/Jakarta government”, “Batavia/Jakarta migration”, “Jabodetabek”⁹. Subsequently, the selected titles were sought in the several primary public and private libraries in Jakarta and nearby cities. The main one was the National Library mentioned earlier; additionally, we also sought into the University of Indonesia’s library, Institut Teknologi Bandung’s library, Jakarta Provincial Library, and Freedom Institute Library. We conducted these libraries surveys in the period of August 7, 2017 – September 22, 2017. At last, from this process, numbers of publications were selected as main historical information sources about Jakarta kampung landscape history.

For the historical maps, we based the source collection on the digital maps collection of Universiteit Leiden, Netherlands and cartography collection of National Archives of Indonesia (Arsip Negara Republik Indonesia, ANRI). We explored their collection, consist of some topographical and thematic maps of Jakarta (Batavia), to seek maps which could give information in answering our research questions. Leastwise, 34 of historical maps were surveyed and given a note for coding processes (see appendix B for the list).

2.3.2 Oral History

Another source of historical data collected in this research was oral history. Simply, it is a history which sourced from oral sources¹⁰. We collected oral history information through interviews. The process largely involves finding knowledgeable people to talk about the history of their lives or their communities, providing a framework for conservation, and then listening very carefully to what they have to say (Thomas, 2004). As its focus on the subjective perspective, oral histories can provide insights not frequently found in more traditional reviews or summaries [red: written history] (Russel, ...). Therefore, for this research, as many information is not available in the written sources related to the landscape

⁹ The symbol “ / ” here means “or”.

¹⁰ To know on more deeply manner about this method, see Thompson (2000).

history of kampung in Jakarta, we also used oral history as another way to construct a landscape history of the kampung.

Oral history interviews were held by a semi-structured in-depth interview in five selected kampungs in JMA. As a semi-structured interview, we prepared a set of questions to be a framework for conservation (see interview question in appendix C), yet keep open to the improvisation during the interview based on responses of the interviewees. The duration of each interview varied from thirty minutes to more than one hour. The main target of interviewees were elders of kampungs, with the age was more than 70s. However, we also interviewed many elders with age younger from it to gather information about the more recent development of their kampungs and additionally because the number of elders older than 70 years old was already limited. The selections of those interviewees were through snowballing technique in the fields.

There were five kampungs which selected as our case studies for oral history: 1) Slipi, West Jakarta; 2) Jagakarsa, South Jakarta; 3) Pasir Putih, Depok; 4) Mustikasari, Bekasi; and 5) Sukahati, Cibinong. The location, radius from the center of Jakarta, and the number of respondents in each case studies are described in figure 2 and table 1.

Table 1. Kampung case studies

Location	Radius from Center of Jakarta	Number of Respondents
Slipi	<10km	13
Jagakarsa	10-20km	8
Pasir Putih	20-30km	9
Mustikasari	20-30km	11
Sukahati	30-40km	9
<i>TOTAL:</i>		<i>50</i>

(source: author)



Figure 2. Kampung case studies Location
(source: author, modified from maps.google.com)

2.3.2.1 Consideration Behind Oral History Case Studies Selection

There are three considerations on this case studies selection. First, one of the theoretical foundations that we used in this attempt to understand the landscape history of kampung and its relation with UPA is the McGee (1991) *desakota* (urban-rural mixture) concept, where the concept is manifested on a spatial system of a hypothetical Asian country. In that spatial system, the areas where UPA is supposed to be present in an urban-rural mixture area are supposed to be located between a prime major city and proximate other major cities. In our research, we consider the former as the city of Jakarta, and the latter as Bogor city; two major cities which historically connected since 19th century where the later functioned as a satellite city for the former. Thus, we chose locations which representing urban-rural mixture area presently and were representing urban-rural mixture in the past between those two major cities. The only exception is the case of Mustikasari in the eastern part. Because to the east, there is a major national industrial cluster center which is performing as the industrial satellite city for Jakarta and McGee (1991) mentioned the strategic role of industries on generating urban-rural mixture character.

Second, our presumption in this exploratory research is, the distances from the urban center would influence the degree of urban-rural mixture. Presently, to the South, areas that

have characteristics of the urban-rural mixture where UPA is there can be found in the forty kilometers' radius from the center of Jakarta. By this presumption, we presume that in the past the urban-rural mixture areas existed in distances which closer to the center of Jakarta. From this basis, for practical reason, we chose a kampung as the case study for every ten kilometers' radius to the South (the Bogor city is located fifty kilometers from the center of Jakarta).

Finally, selection of specific kampung (in *kelurahan* administrative unit) in each radius was based on the information from the historical literature (i.e., Silver, 2007; Krausse, 1975; Boedhisantoso, 1967; Kementerian Penerangan, ...) and complemented with agricultural data of the location. In this consideration, we chose kampungs which in our literature reported had considerable agricultural areas and farmers, while located next to or inside the urban areas of the city of Jakarta. However, some descriptions in that literature were hardly referred to specific kampung but an explanation of wider areas (e.g., in *kecamatan* [district] level, a level above *kelurahan*). For this situation, we based the selection on the present agricultural data, whence a *kelurahan* with the largest presence of agricultural land uses were selected.

2.4 Data Analysis

There are four data analysis methods used in this research. The critical method in history was used only for the historical literature and maps data. The qualitative coding process was utilized to processed all data, which consist of texts and images (including maps) to build a qualitative interpretation. Specifically, for the data from oral history, it would be analyzed in final steps by retrospective analysis. While data from historical literature and maps would be analyzed in the final step by historical land-use analysis.

2.4.1 *Critical Method in History*

We implemented the critical method in history¹¹ for the historical literature, and in some extent, to the historical maps that we collected from various libraries in Indonesia and Netherland (digital) as sources of historical evidence about Jakarta's kampung landscape history. Basically, this method consists of procedures for validating critically written (or draws, for maps) sources. The aim is to ascertain facts from statements (or visual information, for maps) in our historical sources. As explained in Hockett (1995), the methods consist of two criticism: external criticism and internal criticism.

External criticism is to determine the authenticity of documents. In doing this, there are four procedures that need to be followed. First, determination of the authorship, to determine who is the author of the written sources and is the name written as the author on the text the real author of the text. To do this, we can use internal evidence, supplementary data from other related sources, observing the tone of the documents, try to find clues to authorship if the document was anonymous writings, and pay concern whether it was written by ghostwriters or not and the issue behind it. Second, it should be followed by paying attention to the evidence of date by looking at the production time of documents. Third, we need to do detection of spurious documents whether those are products of forgeries, plagiarism, or erroneous products. Forth, still, part of external criticism does a textual criticism or a question of original form. In this phase, we do collation of any corruption on the texts which made them deviate from the original form. If we found any corruption, we should restore the original reading by comparing with variant readings on a similar topic or through conjectural emendation, if possible.

¹¹ The explanation about critical method in history in this part are from Hockett (1955).

After determining that documents are genuine through external criticism, it should be followed by internal criticism: criticism of statements inside the documents. It consists of two parts: positive (internal) criticism and negative (internal) criticism.

Positive criticism determines what the author tried to say in his statements inside the historical documents. It could be done by, first, noticing of the literal meaning of statements. It followed by identifying the real meaning of the statements, by pay attention to whether “the statement is intended to be taken literally or in an oblique sense” (Hockett, 1955).

In another way, negative criticism intends to doubt the statements if there is any reasonable ground for doubt. It could be done in several steps. First, testing the competence of the author, whether he/she has the capacity to say what stated in the documents. Second, doubt any statements which were a gossip, rumor, and slander. Third, avoid statements which consist of myths and legends (which scientifically not make sense) and traditions which do not have any proper evidence. Forth, testing the truthfulness by paying attention to the competence, social and political position, interest, and other such things of the author that possibly motivate him/her not to say the truths. Finally, avoid any statements which discredited other parties.

After our collected historical literature (and maps, to some extent) passed through this critical method procedures, we could use those documents as our sources to recover the past. It is a step done to reconstruct the urban-rural mixture in pre-1970s Jakarta which based on written sources.

2.4.2 *Qualitative Coding Process*

The qualitative coding process is a process of themes identification and organization in qualitative data to do data reduction and create an interpretation of data by organizing the

data based on codes that decided or is deciding during the coding process (Hay, 2010). While the meaning of the 'code' itself is explained by Saldana (2016) as the following:

A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data. The data can consist of interview transcripts, participant observation field notes, journals, documents, literature, artifacts, photographs, video, websites, e-mail correspondence, and so on. The portion of data to be coded during First Cycle coding processes can range in magnitude from a single word to a full sentence to an entire page of text to a stream of moving images. In Second Cycle coding processes, the portions coded can be the exact same units, longer passages of text, and even a reconfiguration of the codes themselves developed thus far. Just as a title represents and captures a book or film or poem's primary content and essence, so does a code represent and capture a datum's primary content and essence.

The coding process would be continued by categorizing. It is to produce categories which consist of several codes which shares some patterns. Then, from the patterns we found in categories, we could develop themes or concepts, which in the end would be the foundation of a theory we will develop (see figure 3).

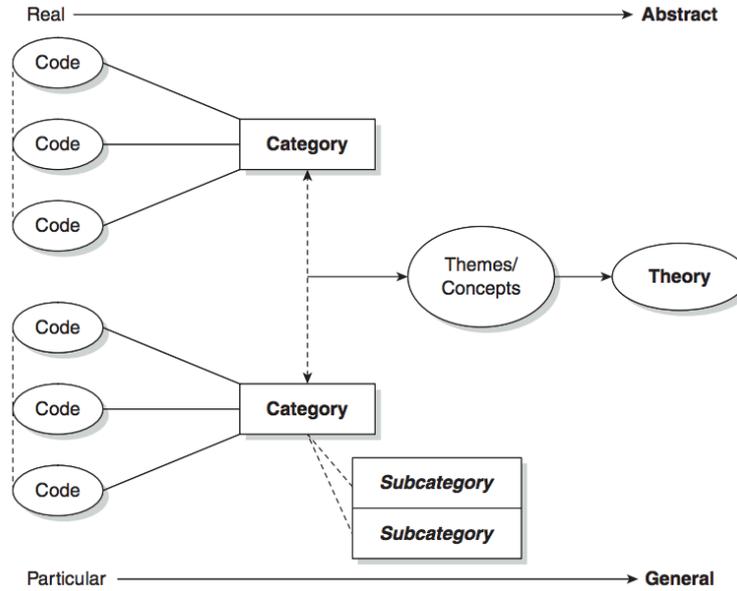


Figure 3. Qualitative coding process
(source: Saldana, 2016)

In this research, historical literature text, maps (to some extent), and transcripts of oral history interviews were processed through qualitative coding process. We utilized two kinds of coding in this process, descriptive codes and analytic codes. Descriptive code is a code which “come directly from the statements of subjects or are common phrases found in the texts being examined” (Strauss and Corbin, 1990 in Cope, 2005), while analytic codes reflects “a theme the researcher is interested in or one that has already become important in the project” (Cope, 2005). Group of codes which could explain some pattern then categorized to create categories. Similar way, the categories which can explain some pattern then grouped to produce themes. From all these codes, categories, and themes, we could produce a codebook which consists all the codes, categories, and themes; including statements from texts which generate the codes. Furthermore, the results of this qualitative coding process would be the basis for the next analysis which will be explained in the next parts.¹²

¹² See also Crang (2005) and Babbie (2007).

2.4.3 Historical Land-use Analysis

This method was done by deconstructing landscape of the past to understand what land uses/covers (or settlement pattern) were exist in the past. The key tool in doing this analysis is historical maps (Karro et al, 2014). This method would allow us to know the basic knowledge about landscape changes at the regional level (Zarina, 2010; see also Zarina, 2013).

This method was utilized in this research for interpretation of historical maps which have been collected. After a map had passed the critical method, it would be followed by understanding the legend and other features of the map. Before in the end, we analyzed land a use pattern which suggested by the map.

2.4.4 Retrospective Analysis

The retrospective method is one type of landscape historical analysis. It is a method where we look back and investigates the history of present-day landscape elements (Stahlschmidt et al., 2017). The procedure of this analysis method was explained very well by Stahlschmidt et al. (2017) as follow:

Retrospection is a peeling-off technique where every analyzed landscape element is followed back in time through different evidence. At some point the element ‘disappears’ in the evidence, which can suggest the probable time period it first emerged as a continuous feature. When all elements are mapped and dated you create a picture of the different time-depth in the landscape and the dominant historic phases in selected parts of the landscape...

In this research, the method was used to understand the time-depth of urban and rural elements in our five local case studies based on oral history to understand the stages of kampung case studies.

The indicators and parameters of four stages of kampung are a derivation from the idea rural-urban spectrum. The four stages kampung model is basically to explain how the kampung is transformed, uniquely in a different path with other areas of Jakarta, from a rural landscape to be an urban one. What makes the path of rural to urban transformation of kampung different is, they have the ‘in-between’ phases, what we have coined as the first and second *desakota* kampung. In those two stages, they are neither rural nor urban, but a mixture of urban and rural characters. Therefore, those indicators and parameters should be able to reveal the dynamics of the rural and urban mixture of kampungs.

In doing so, we are referring to the work of McGee (1991), the one who is the first time coined the concept of the urban-rural mixture which he labeled as *desakota*¹³. His observation in several Asian cities revealed the existence of such mixture area, and he defined it as “...regions of an intense mixture of agricultural and nonagricultural activities...” and “...an extensive zone of mixed rural-urban land use...”. The two main components how McGee defined *desakota* thus would be the basis for our indicators. Those are the land use and activities. However, we need to do some modification to make it possible the point that we ask our respondents are something which can easily grasp from their memory, but without deviating too far away from what is meant by McGee. For the former, the land use is defined as “a series of operations on land, carried out by humans, with the intention to obtain products and/or benefits through using land resources” (Coffey, 2013). From this definition, we can see that the land use category of an area are actually a product of analysis as it is a series of operation on land. Definitely, we do not intend to push our respondent to tell to do

¹³ See definition of *desakota* in sub-chapter 3.1.

an analysis and defined a series of operations in a period of time from the past. Therefore, as basically what we want to know here is the use of land, what was present on the land in a period in the past, thus, we replace land use with the landscape. We do it because, the landscape is defined as "...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Council of Europe, 2000 in Antrop, 2004). By this way, we are enough to only ask what our respondents perceived an area in a period of the past. For the latter, the problem of the term activities is it still too vague. But, as McGee continued to explain that what he means on this desakota model is about space-economy, thus, we will translate the activities there as economic activities. To be more precise, then, we would grasp the economic activities by looking at the economic occupation of the people. Hence, those are the two indicators that we use for the retrospective analysis: landscape feature and economic occupation.

From those two indicators, we derived the parameters. The parameters basically explain the variables of rural characters and urban characters which can be categorized under those two indicators. What we mean by urban and rural here is gone back to McGee (1991) definition. The way he defined a mixture of urban and rural is by referring to the mixture of agricultural and non-agricultural. Therefore, in the first level, we divided each indicator into agricultural and non-agricultural groups. Limited for the agricultural landscape, we divided it again into surrounding landscape and settlement landscape, as the difference on both is one of the key points to differentiate first and second desakota kampung. The general structures of these parameters and how we derived them from each indicator can be seen in figure XX. What follows from here is some explanation that needs to be added for some parameters which still left some questions. First, we put wetland agriculture and plantation estate in the category of kampung surrounding landscape, while crop field and orchard are in the category of kampung settlement landscape. We do it based on a topographic map produced in 1882-

83¹⁴ that show the kampungs were obviously surrounded by paddy field and/or plantation garden. Therefore, we can inference from there that it is the basic structure of kampung before the rapid urban expansion started to occur in the post-war period and started the transformation process from rural to urban kampung. Still, inside the kampung itself, many agriculture exists which mainly produced vegetables and fruits, as described by Abeyesakere (1989). Thus, we confirmed that crop field (vegetables) and orchard (fruits) are appropriate to be categorized into kampung settlement landscape. Second, for the non-agricultural landscape, we put planned/real estate housing, industrial area, and business/office area as parameters. The decision to choose those three parameters is based on the urban land use (or landscape) category in Indonesia planning system which commonly categorized urban land use into those three parameters¹⁵. Third, we differentiate subsistence farmers and cash crop farmers, instead of only 'farmer', because from the written history about kampung (see sub-chapter 3.2) show that the agriculture in kampungs was commonly different with their counterparts in the villages remote from the city. They tend to sell the products to the city, which mean, a cash crop. Therefore, the shift from subsistence farmers to be cash crop farmer can be one explanation of kampung shifting from rural to urban. Fourth, the industrial worker, office and urban worker, traders, and landlords are from an inference of the second point above (what main categories of occupation exist in such area).

¹⁴ *Topographische Kaart der Residentie Batavia* (produced in 1882-83)

¹⁵ See e.g. Jakarta Regional Regulation No.1 of 2014 on Detail Spatial Planning and Zoning Regulation, and Ministry of Public Works Regulation No. 17/PRT/M/2009 on Guideline of Urban Spatial Planning.

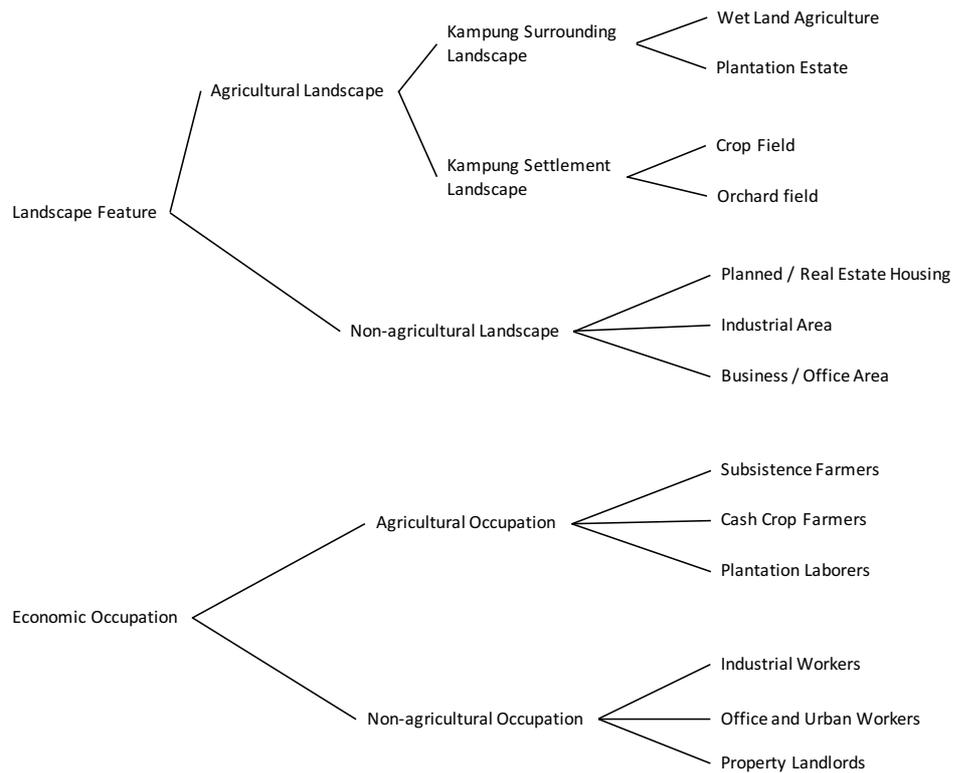


Figure 4. The indicators of kampung four stages for oral history cases (source: author)

Finally, this is how we use those parameters of retrospective analysis to categorized our case study kampungs into four stages model. The rural kampung is when all parameters in non-agricultural landscape and non-agricultural occupation are absent. The first desakota kampung is when the non-agricultural landscape or non-agricultural occupation started to appear, but the kampung remains to maintain its kampung surrounding (agricultural) landscape. When the kampung surrounding landscape is gone and remained agriculture in kampung settlement landscape, the kampung shift to stage 3. After agriculture in kampung settlement also gone, which mean, all agricultural landscape is lost, and obviously, followed by the loss of agricultural occupation, then it is gone into stage 4. The followings are the result of this retrospective analysis.

CHAPTER 3: RESULT

This chapter provides the findings of the research. It would be started by an explanation of the four stages of kampung as the main construction of the result. Thereafter would be followed by providing the evidence which becomes the foundation of the four stages of kampung model construction. It would begin with the evidence from historical literature and maps sources and followed by the evidence from oral history source.

3.1. The Four Stages of Kampung

The main argument that would be developed in this thesis is that the landscape of kampung throughout history, at least since the late colonial period in the mid of 19th century, was developed in four stages as urbanization occurred. The development model we will argue here is closely related to the relationship between the urbanization and the agricultural landscape of kampung—in particular, and which made it important, on how it's urbanization pattern was different with other zones of Jakarta regarding its agricultural landscape. As ubiquitous landscape setting on Jakarta, the development of kampung landscape by itself would elucidate how the UPA on Jakarta was originated and declined.

Before going to the explanation of the four stages of kampung model, we need to elaborate the conceptual definition of kampung as a landscape that we use in this model. The main point on this conceptual definition is to differentiate between ‘kampung settlement’ and ‘kampung landscape’. Kampung settlement refers to the residential areas which consist of vernacular housing and (ideally) include some home gardens in each house parcels and small gardens between individual house parcels. While the term kampung landscape consists of the kampung settlement and the surrounding agricultural and natural landscape. The two latter objects are also labeled as kampung surrounding landscape. Ideally, there is interconnectedness between the surrounding landscape with the people who live in the

kampung settlement, spatially and also in the socio-economic system. Related to this, the limit of this surrounding landscape of a kampung is thus depended on the spatial range on how far this interconnectedness exist. If there is more than one kampung side by side, it is possible that those kampung settlements share the same surrounding landscape. Figure 5 provides a schematic illustration of our conceptual definition of kampung settlement and kampung landscape.

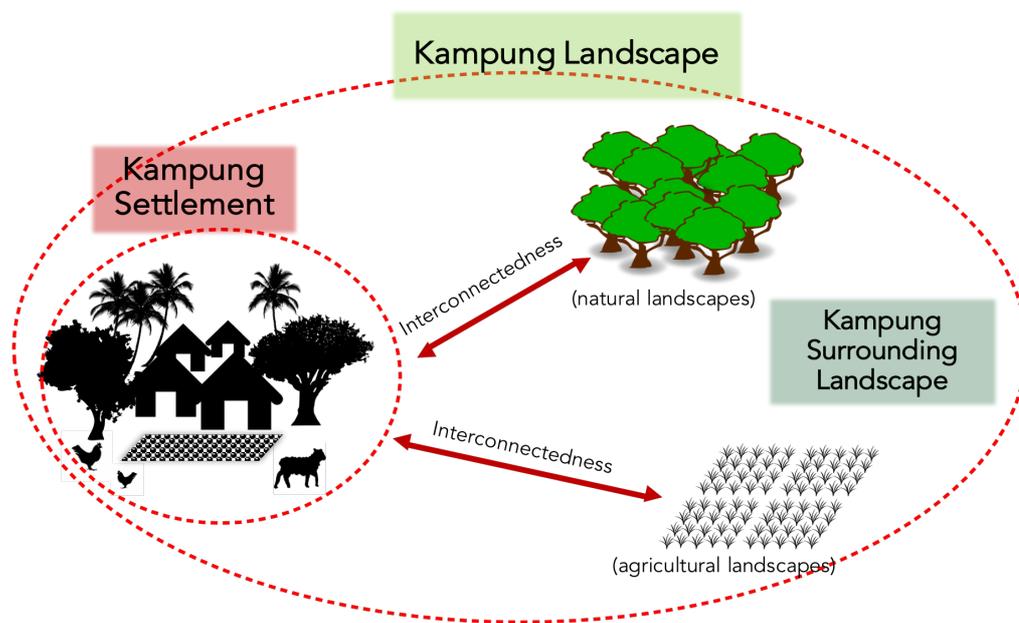


Figure 5. Schematic illustration of kampung conceptual definition (source: author)

After apprehending the conceptual definition of kampung, now we move to our main argument on four stages of kampung model. Figure 6 present an illustration model of four stages of kampung landscape development. Those four stages are: 1) Stage 1 the Rural Kampung, followed by 2) Stage 2 the First Desakota Kampung, 3) Stage 3 the Second Desakota Kampung, and in the end, 4) Stage 4 the Urban Kampung. Each parcel on the illustration represents a landscape feature. There is an agricultural landscape (green dominance plate parcel), natural landscape (trees-dominated parcel), urban fabrics (buildings-dominated parcel), and kampung settlement as the center parcel. For the latter, the kampung

settlement parcel, this illustration also depicts the change inside this parcel, from originally consist of informal housing (black and brown house icons) with some small agricultural features between houses (the trees-greeneries icons and the livestock icons) in the Stage 1 up to Stage 3 before in the final stage it loss those agricultural features. This illustration model does not intend to represent all landscape components of kampung, yet it is helpful to comprehend the general components which are important to understanding the landscape history of the kampung. One thing needs to be noted, that what we will explain in the four stages of kampung model is not only about physical aspects. This model also would reveal the socio-economic aspects in relation to the landscape changes in the kampung.



Figure 6. The four stages of kampung development model illustration (source: author, partly modified after Yokohari, 2018)

After explaining the important background information of this model, now it is time to explain it in more detail by explaining each stage one by one. We start from the Stage 1, the Rural Kampung. In this stage, the urbanization has not reached the kampung yet. The city and the kampung are on the situation of minimum contact. Thereof the kampung is rural in nature. There is an only limited and insignificant urban influence to the kampung. In the surrounding of the kampung settlement we would find the agricultural landscapes which commonly dominated by paddy field. Besides, we also can find natural landscape such as forest or woodland. Those surrounding agricultural and natural landscapes have

interdependent relationships with the inhabitant of kampung who lives on the kampung settlement. In this interdependent relation, the kampung inhabitant maintains those surrounding landscapes, in reply, the landscape provides life necessities to them. Inside the kampung settlement itself between the houses or in the individual homeland parcels, we can find crop field garden and orchard with various fruit trees. With those landscapes, the life of stage 1 kampung is based on the rural socio-economics. The main economic activities are agriculture based and the people utilize resources from natural landscape next to their settlement such as for fuel and water resources. The stage 1 rural kampung basically do not differ from other village settings.

The kampung going to the Stage 2 after the urbanization started to touch the kampung. As the urban expansion reach the landscape of kampung, kampung cedes some amount of surrounding agricultural or natural landscapes for urban development. Yet it still maintains a large part of its surrounding landscape, and inside the kampung settlement agriculture remain ample. However, as the urban fabrics now in affordable distance or even next to the kampung landscape, the urban domain socio-economic activities started to appear on kampung. The urban domain and rural domain socio-economic activities is now co-existence on kampung, establishing what Yokohari (2017) said as economy on layer model¹⁶, where the kampung inhabitants that originally farm household run a flexible business operation between agricultural and urban domain economy, which possible as there is co-existence of urban and agricultural landscapes, make them be more resilient. This stage of kampung is labeled as First Desakota Kampung¹⁷.

The First Desakota Kampung will transform to be Second Desakota Kampung when kampung cedes all its surrounding landscape for urban expansion. The paddy field which can

¹⁶ In this text, often we would call it just as “layered economy” for short.

¹⁷ Desakota is a term coined by McGee (1991) refers to “regions of an intense mixture of agricultural and nonagricultural activities” which he observed as commonly found in major Asian cities. As it is already accepted term in academic discussion, we used this term to refer to the urban-rural mixture characters which also found inside the kampung.

be found in the surrounding of kampung settlement, and so do the woodland or forest, are vanished and replaced by urban built-up. However, interestingly, different story for agriculture inside the kampung settlement. Even though urban expansion has expanded beyond the kampung settlement, inside the kampung settlement itself, agricultures are struggled. As a matter of fact, in a kampung settlement which located in three-kilometer radius from the CBD, the agriculture was a presence until the 2000s even though at that time Jakarta had expanded up to the thirty-kilometer radius from the CBD. The kampung can hold its agriculture inside its settlement and becomes like agriculture islands in the sea of urban fabrics. The layered economy still functioning, although the urban domain getting more dominating.

After a while, the kampung finally cedes all its agriculture inside the settlement as urbanization keep pressuring, particularly from the population pressure. The loss of agricultural landscape means loss of functioning layered economy, as the rural domain economy now do not possible to operate. The kampung inhabitants have to depend entirely on urban economics. However, as most of them basically are farm households, they are the lagger on the urban economics race. The loss of agricultural features also means loss of greeneries, make their environment deteriorate worse—after previously already lack basic infrastructure and sanitation as the least developed zones in the city in term of physical development. In this final stage, the Stage 4 Urban Kampung, the kampung is associated with slums and its synonym.

The understanding of how landscape history of kampung which has been classified into Four Stages of Kampung Development above actually reveals the story of the origin and the decline of urban and peri-urban agriculture of Jakarta. The agriculture that we found on stage 2 of kampung is in essence—if we use a present terminology—is the peri-urban agriculture.

They are agriculture which located in the edge of the city. While, the agriculture that we found on stage 3 is what today we would call it urban agriculture, as it is agriculture which exists in the midst of urban fabrics. Kampung is the zone where urban and peri-urban agriculture originally exists. Hence, the history of the landscape of kampung is virtually the history of UPA in Jakarta. We will examine how the kampung reveals the history of UPA in the upcoming chapter.

Now, since the main argument has been put here, now we need to move to the detail evidence which became the foundation of the Four Stages of Kampung Development model.

3.2. Evidences from Historical Literature and Maps

This part provides evidences from historical literatures and maps to support the four stages of kampung model. The nature of evidences provided here are in general nature. That means, they would cover the overall Jakarta area and its surrounding¹⁸, and cover the landscape history from all periodization, particularly since colonial periods from seventeenth century when the historical records started to be much available in numbers. However, one thing needs to get special attention is that many of the examples or the locations which are referred here would tend to focus on the central area of Jakarta, as obviously much of historical literature focus on there. In the later section, we will cover up this shortcoming by adding oral history as another source of evidence.

3.2.1. Stage 1 – Rural Kampung

This part provides some historical records from historical literature and maps as evidence which will indicate us to the existence of the kampung in the first stage according to our categorization, stage 1 – rural kampung. We will show how the kampung in the initial stage

¹⁸ Therefore, the area that we call as Jakarta in this explanation also changing based on the period we refer to.

was separated from the city. Thus, we will explore the history of how the city was built, and how the kampungs emerged on its surrounding soon after; yet, the kampung in this stage was almost totally rural while the city was totally urban.

It would bring us to start from the first formation of the city of Batavia, the former city of Jakarta when it was occupied and ruled by Dutch colonial; and, where the modern city of Jakarta was built on the structure of it. We can make our exploration do not go further than before the Dutch colonial period because the pre-colonial city on the area of Jakarta today, the predecessor of Batavia called Jayakarta/Sunda Kalapa, was annihilated during the conquest by the Dutch—to be more specific, by the Dutch East Company (VOC) (Heukeun, 2000, pp.151-158).

Batavia city was built in 1619 by the Dutch on the mouth of Ciliwung river. Built from the ruins of the pre-colonial city of Jayakarta, the Dutch carried in the European, especially Dutch planning concepts to this tropical coastal area as could be seen in the figure 7 (Ford, 1993, p.376; Heiden, 1990, p.63). Some argued that it was modeled after Amsterdam, as the city was completed with canals and draw-bridges, gave it an orthogonal pattern where houses stood in a row along the canals (Surjomihardjo, 1977, p. 20; Heiden, 1990, p.64). The initial formation of Batavia covers the area of 65 hectares, or only 1 of contemporary Jakarta area (Haris, 2007, p.47). Different with the predecessor indigenous city which dominated by wooden and bamboo structures (Kanumoyoso, 2011, p.55) where the city was open without encircled walls (see: Reid, 1980, p.242), Batavia was built of stones and bricks with tiled roofs (Kanumoyoso, 2011, p.55) and it was a massive physical structure of fortified city surrounded by stone walls of three feet thick (Blusse, 1981, p.163; Kanumoyoso, 2011, p.64; Haris, 2007, p.47).



Figure 7. An example picture illustrates the European structure of Batavia in the initial stage (source: www.rijksmuseum.nl)

In the founding period, Batavia was isolated (see figure 8). We would hardly find any settlements in the surrounding area (or called the *Ommelanden*, in Dutch mean: the Environ) of the walled city at that time. One reason was, all indigenous settlements previously clustered around the area were demolished together with the annihilation of the city of Jayakarta (Kanumoyoso, 2011, p.55). Another reason, after the series of battle, to fight over the city and the eventual city was seized by the Dutch, the Sultan of Bantam, a king of a Bantam Sultanate which capital was located eighty kilometers to the west of Jayakarta who was the master of the city before the Dutch came, ordered the prince and people of Jayakarta to escape from the city and moved to Bantam capital (Heukeun, 2001, p. 30). However, the isolation of Batavia did not last long.

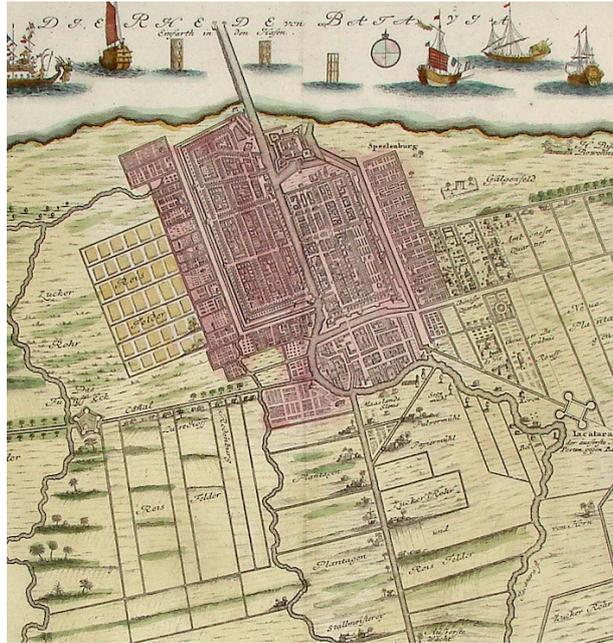


Figure 8. An example picture illustrates the isolated structure of Batavia in the initial stage (Source: Leiden Universiteit Digital Collection)

Not long after, in the surrounding area of Batavia, appeared the indigenous settlements called *kampung*¹⁹ which in the initial stage were completely rural in nature (see figure 9). The initial formation of *kampung* could not be separated from the intention of Dutch to populate the vicinity of the city. According to Kanumoyoso (2011, p.55), there were three main factors why they want to populate the area: the high density inside the walled city, security reason, and food production. For the first and second reason, the Dutch forcibly concentrate some indigenous citizens who previously resided inside the walls to settled on the Batavia vicinity. Many of them were the indigenous soldiers under the Dutch (Kanumoyoso, 2011, p.51; Niemeijer, 2005, p.93), thus, their settlements on the surrounding area could be functioned as a frontline defense before the enemy could reach the walls (Kanumoyoso,

¹⁹ Because of this race distinction on the formation of *kampung* during the colonial period, therefore, the Encyclopedie van Nederlandsch-Indie (1918, in Krausse, 1975) defined *kampung* as “a native village whether as part of a city or as a separate entity”.

2011, p.58). However, obviously, the last factor i.e. food production would be more important for our discussion.

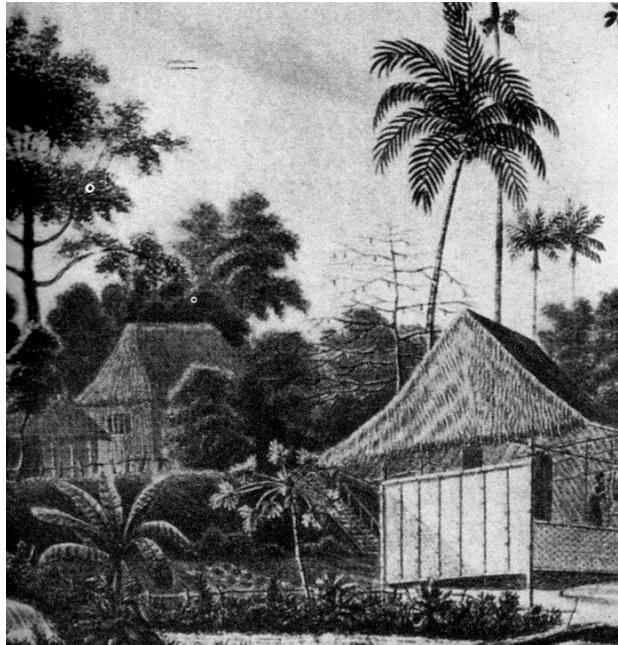


Figure 9. Kampung in the nineteenth century
(source: Abeyasekere, 1989)

The indigenous soldiers who already settled their kampung—who clustered based on ethnic groups—were eventually also paddy-cultivators. They fulfill their life necessities through agriculture, and it was their primary livelihood. In the mid of seventeenth century, what the ethnic group heads were most worried about was on how they could get more agricultural lands, to be used collectively for their ethnic group in order to avoid poverty. (Niemeijer, 2005, pp.97-98). Moreover, besides the indigenous soldiers, the other early settlers of kampung were slaves and free-migrants who came for the economic reason (Kanumoyoso, p.53, p.53). The latter group would play an important role to live up agriculture on the area as their number were the largest. Most of them were the Javanese, whom a majority of them came from Mataram Sultanate provinces and Cirebon Sultanate in the east or Bantam Sultanate in the west (Kanumoyoso, p.53). They resided not only on the vicinity of Batavia where was Dutch-controlled but also on the vacant lot on the deeper inland

territory to the south and out of Dutch control (Niemeijer, 2005, p.90; Kanumoyoso, p. 53). Indeed, their main socio-economic activity was agriculture, and, paddy-cultivation was their specialty from generation to generation (Neimeijer, p. 121). They opened the virgin areas covered by forests and transformed it to be paddy-fields (Niemeijer, 2005, p.126).

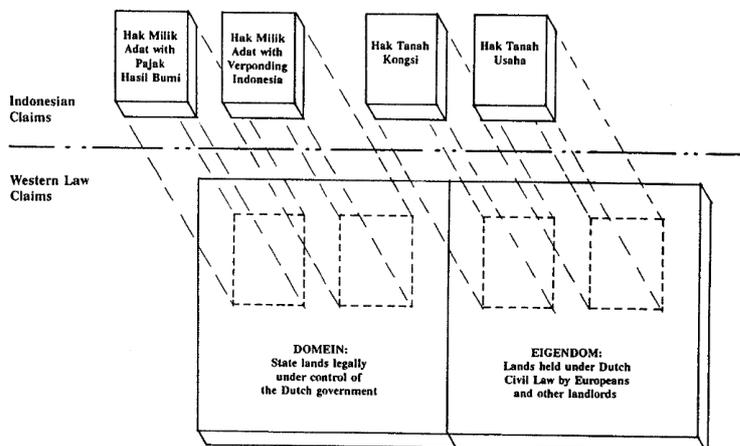
Furthermore, those early kampung settlers in the seventeenth century, both the free immigrants and the indigenous soldiers, were performed other various agricultural activities in addition to paddy-cultivation. The forest clearance activities for paddy-field generated production of wooden blocks, which then, it would be burned to get charcoals for fuel. Another way to utilize the forest was by cut down the trees to produce timber and cutting the bamboos, both were for sold to the city. The kampung settlers also cultivated and collected various fruits such as bananas, coconuts, and areca nut. They also produced vegetables by themselves. Some even perform as market gardener seasonally to sell their agricultural products. Still, they were raising livestock as some worked as a cattle herder, herding their stocks on the nearby pastures. Those kampung settlers were virtually reluctant to only have one land and one agricultural activity (Neijmeijer, p.121; Kanumoyoso, p.71). Hence, indeed, the landscape of kampung was dominated by agricultural landscape and coupled with the natural landscape around them.

What is more, besides cultivated their own land or utilized nearby forest, many of kampung settlers were worked in the plantation estates, large and small, who mostly owned by the European or Chinese citizen who got privileges. The establishment of early kampung was almost simultaneous with the establishment of plantation estates on the Batavia vicinity in the seventeenth century. It was profitable businesses, and the two commodities which were commonly found in plantations as they gave high profitability at that time were fruits and sugar (Nejmeijer, pp.105-108, pp. 109-112; Dinas Museum dan Sejarah DKI Jakarta, 1993, p.15). Hence, the scale of this agricultural business indeed required many laborers, that was

where the presence of kampung settlers meet those needs. As facts, many of the kampung settlements were located on the lands belong private landlords who owned plantation estates—whose lands were extensive—, where kampung people, either free laborers or slave laborers, were allowed to live on and also allowed to cultivate paddy-fields there, at a rent price of one-tenth of harvest²⁰.

The evidence from historical sources here has shown us how the kampung was in the initial stage, stage 1 – rural kampung was dominated by rural domain landscapes and socio-economic activities. Agriculture, particularly paddy-fields, was the principal parts of the landscape of kampung. Natural landscapes such as forest or bamboo forest were also part of the landscapes. The sole occupation was in agriculture, either cultivated their own occupied lands or by worked as plantation laborers. However, then, what is the differences between the rural kampung we explained above with other villages? The answer is its position against the city. All the story of the kampung in this stage we put above always paired with the city as its background. For the city, the kampung had an important role to support food sufficiency, while agriculture-based economic enjoyed by the kampung was present because there was a

²⁰ As explained in Leaf (1993), during Dutch colonial period, there was dual system of land and planning system. In one hand, there was Western Law claims domain, but, inside the same area, Indonesians also claim based on its customary law. That was means, in one area, two legal system, Western claims and Indonesian claims, existed. Therefore, it was possible that the Indonesian farmers cultivated paddy field on a land owned by—based on Western claims—a private landlord, based on some negotiation between those two claims.



city. Yet in this stage, the kampung was solely rural and the city was solely urban. There was still a clear limit, the walls and distances separated both apart. But that separation will not last forever. In the next stage, stage 2 – first desakota kampung, we would see how the kampung would admit the urbanization, yet without losing its rural landscapes and socio-economics, resulted from a mixture of urban and rural landscapes and economy, the quality that could be expressed as desakota.

3.2.2. Stage 2 – First Desakota Kampung

The period of clear boundaries between the city and the countryside (the rural kampung), a condition which caused by the imitation of the European planning concept brought by the Dutch, started to be abandoned in the nineteenth century. The compact walled city model with clear separation from the countryside was unsuitable for the hot and humid climate of Indonesia (Heiden, 1990, p.65). It had brought Batavia facing disastrous environmental and health problems, turned the ‘Queen of the East’ into the ‘Graveyard of the East’ (Blusse, 1985, p. 66; Heiden, 1990, p.65). In 1809, the deteriorated condition of Batavia urged Governor-General of Dutch colonial administration in Batavia, Marshall Daendels, executed the move of the city center and built a new city in 10 kilometers inland on the area called Weltevreden (Blusse, 1985, p.83). This time, the Dutch colonial administration did not repeat the incompatibility by re-enforcing European planning concept there. A century and more of Dutch colonization in Batavia and other areas of Hindia archipelago, particularly the island of Java, had made possible the private and official contacts between Dutch and Indonesians, fostered a mixture of cultures. That process yielded a new culture emerged, what then called *indische* culture. The *indische* culture then implemented on the planning concepts of the new Batavia, Weltevreden, where Indonesian planning concepts and wisdom were introduced. For the physical structures of buildings, it portrayed a mixture of the Empire

style and Javanese architecture, completed with pyramidal roof and large verandahs, the style commonly found on the Javanese traditional houses. The buildings then surrounded by large gardens, imitated Indonesian traditional individual land parcels of *pekarangan*. The large square in the center and functioned as the heart of the city where main public buildings were located on its surrounding, was introduced resembled *alun-alun* concept of Javanese cities (Heiden, 1990, p.65).

Hereupon, what happened to the kampung? The result of the development of a new city center of Weltevreden in the south of the old center, created a dumbbell shape of the city, with two European city centers in the north and south, and completed with a strip connecting two city centers. In the north, there was the old city center, the former walled city in the port (the walls were demolished to provide building materials for the construction of Weltevreden [Ford, 1993, p.377]). In the south, there was the new and more spacious city center, Weltevreden. What happened next, the space between those nodes along the strip was then filled up by the kampungs, besides it also soon surrounded the new city center (Ford, 1993, p.377). While on the Old Batavia, before the construction of Weltevreden and demolishing of the wall there were clear boundaries between the city and the *Ommelanden* in this new setting, the boundaries were blurred. The traveler at the time on the Batavia would see the glimpse of kampung's fruit trees between European residences. Kampung became the interface between the city and countryside.

In this new situation, when the kampung adjoined side by side with the city, the configuration of landscapes and socio-economics systems inside the kampung itself was changing. If on the previous stage (the stage 1 – rural kampung) the landscapes and socio-economics of the kampung were almost fully in rural domain, in this new situation, the kampung could not hold the influx of urban influence. But, even though spatially the kampung and the city was be right directly next to each other, without any borders between

the two, the kampung could maintain their rural domain, even long after that. The kampung inhabitants were still performed rural way of life, as a description of a Betawi kampung in Weltevreden in 1850 from Abeyasekere (1989, p.66):

“If you cross Parapatan bridge from Koningsplein in the early morning, you see the big kampung Kwitang on the river. Most of its inhabitants are bathing in the River Ciliwung. Praus bearing grass and vegetables float on the river, horses bathe in it alongside humans, linen is washed there. In the kampung one can see a woman stamping rice, another sewing on a bale-bale [string-bed] before her hut, another making red peppers into sambal *ulek*; men are climbing coconut palms to get the fruit and are preparing to take the fruit to market. Children dart around amongst hens, ducks, geese, and dogs.”

Jellinek (1985, p.33) provided another example from Kebun Kacang kampung in the 1930s, located within walking distance of Batavia yet the life of its inhabitants resembled those of countryman in the villages of Java:

“The early settlers of Kebun Kacang obtained their needs from the surrounding land. They drew water from the river and gathered wood for fuel. They built their houses of bamboo and thatched the roofs with the leaves of the coconut palm. They grew their own vegetables and sold whatever surplus they had to traders who loaded their purchases on to horse-drawn carts or carried them over their shoulders to the markets of Tanah Abang and Senen or Kota (Chinatown) in Batavia.”

Thus, similar with the rural kampung, the inhabitants in this stage 2 – first desakota kampung still performed agricultural economy. They cultivated paddy-fields, took coconuts, firewood, and grass for horse and livestock; also grew fruits and vegetables where some were for sale to the city. Some inhabitants still worked in the plantation estate of sugar cane and

other commodities plantations. Many of kampung inhabitants were food self-sufficient by self-provided the food through hand-raising poultry, producing fruits and vegetables on their own garden, not mention the rice from many paddy-fields on the side of their settlement. However, notwithstanding all those rural based socio-economic activities, at the same time, there were urban-based socio-economic activities in this stage of kampung, the first Desakota kampung. Some of the kampung inhabitants worked in the urban services sector. They provide urban services such as working as a carpenter, *sado*/cart driver, blacksmith, and laundering. They also engaged in cottage industries, producing shoes, hat, mat, and textile commonly the *batik* (Abeyasekere, 1989, p.66; Shahab, 2002, p.133; Hong, 2006, p.12; Lohanda, 2007, p.250 and see Evers, 1981, p.93-94)²¹. The co-existence of rural and urban economy in this stage 2 kampung generated what Yokohari (2017) coined as the economy on layer model which argued to be a flexible and resilient business operation (see figure 10).

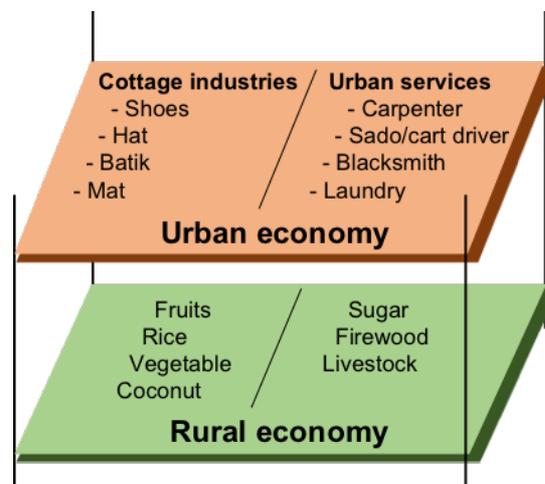


Figure 10. The layered economy model found in kampung (source: author and from the model after Yokohari, 2017)

This layered economy of rural and urban economies was possible because the surrounding landscape of kampung itself still comprised of the rural landscape, although the kampung position was directly adjacent to the city without border, even for some, it was part

²¹ Provincial government official studies evinced that a kampungs which the conditions fit with the stage 2 kampung characters were found in 1980s (DKI Jakarta, 1985) and 1990s (DKI Jakarta, 1993) on the more periphery areas of Jakarta. They were consecutively on Kampung Marunda, North Jakarta and Kampung Rangon, East Jakarta.

of the city. But, we were still able to mark delineation of the city—the area which totally urban—with the kampung where at this stage was in a mixture between rural and urban. The kampungs possessed many traditional Indonesian characteristics (Blusse, 1981, p.163), as their houses were almost always of wood, woven bamboo and thatch, surrounded by the pekarangan landscape, a type of traditional gardens which the main character was an integration with individual or group of households land parcel, where they grew some fruits and vegetables, also the place for hand-raised poultry or few of livestock, to provide the household some level of—if not fully—food self-sufficiency (Abeyasekere, 1989, p.67). Some patches of crop fields and orchard garden were also there. Paddy-fields was the main components of the surrounding landscape of kampung, despite in this stage for some kampungs a side of their surrounding landscape was indeed the frontier to the city. A model of kampung drawn by H. Witkamp in 1918 (in Atman, 1975, p.219) show those configurations: the individual land parcels were surrounded by the pekarangan gardens, inside the settlement area there were crop fields or orchard gardens, and the kampung was surrounded by paddy-fields (figure 11). They are the landscape configuration of stage 2 – first desakota kampung.



Figure 11. A model of kampung in 1918 by H. Witkamp with addition by author (source: Witkamp, 1918 in Atman, 1975)

In a while, kampung would maintain its urban-rural co-existence. Kampung in this stage was a *desakota*. However, we divide the *desakota* stage of kampung into two. What we have explained on this part is the first *desakota* kampung, so, what is the second? And, why should we divide it into two *desakota* stages? Those will be clear in the next part as we will be explaining the second *desakota* kampung.

3.2.3. Stage 3 – Second Desakota Kampung

What differentiates the first *desakota* kampung and the second is the difference in the situation in the kampung's surrounding landscape. The first *desakota* kampung is remaining holding some of its surrounding landscape even though the city has expanded to the kampung's direct vicinity or even take some kampung's surrounding landscape. But, then, on the stage of the second *desakota* kampung, finally the kampung loss its surrounding landscape which commonly dominated by paddy-fields. However, it does not lose all its rural

domain yet. Inside the settlement of the kampung, some agriculture and agricultural economy survive for a certain period. Urban expansion has leapfrogged the kampung settlement which is maintaining agriculture inside.

Before going to the detail of general situation of the kampung on this stage, we need to clarify how and why the kampung could be surviving many of its rural features inside its settlement even long after urban expansion has extended beyond and engulfed the kampungs (Krausse, 1975, p.143; Reerink, 2016, p.196). The history of the development of Jakarta provides two explanation here. First, there is the inability of government, either colonial or Indonesian government, to exercise effective control over kampungs, as argued by Reerink (2016, p.194):

“...neither colonial nor Indonesian governments ever succeeded in exercising effective control over kampungs and therefore could not develop, standardize, and regulate these settlements to conform to their policies. During colonial period, this lack of state control was a consequence of village or kampung autonomy (desa autonomy), which formed part of the official colonial policy of legal dualism. After Independence, kampungs actually retained their autonomy, despite the effort to decolonize.”

Because of that, the kampungs were allowed to develop organically on their own unique way, not necessarily follow the common urban development path which was implemented outside the kampung. Second, the development pattern since colonial until the post-colonial period showed “...a tradition for Jakarta to develop by way of leaps and bounds between strategic spots in the city (to showcase power and development), leaving behind pockets of undesirable area to die or survive on their own” (Kusno, 2015, p.54). This ‘leaps and bounds’ development tradition explained why kampungs, as the ‘undesirable area’ were

“left behind” as relatively rural areas, while the other areas were developed by both state and market power to be urban development areas. Therefore, accordingly, the kampung in stage 3 – second desakota kampungs were effectively the enclaves of agricultural settlements scattered inside the city, and they were almost totally surrounded by urban built-up areas.

Now, we will move to describe the situation of those "enclaves of agricultural settlements", stage 3 – second desakota kampungs. A field study by G. Krausse in 1975 gives some examples of the second desakota kampungs. The kampungs of Karet Kuningan and Slipi, although just located two kilometers from Jakarta business thoroughfare, Thamrin road, at that time were very much rural in character. The kampung on that area was famous for its cow milk farm (Shahab, 2009, p.133). As shown on figure 12 for the case of kampung Slipi, inside their settlements, we would find vegetative growth—many of them possibly the well-known kampung’s fruit trees—and small gardens were scattered throughout these settlements (Krausse, 1975, p.67). The *pekarangan* landscapes were still present on the households’ land parcels. Thereof, farming was still practiced by their inhabitants, whom many of them were growing fruits and vegetables (Krausse, 1975, p.67). But, as the surrounding landscape which mostly consists of paddy-field then had been lost for urban development, we would hardly find the remaining farmers there cultivated paddy anymore. Nevertheless, in spite of the absence of paddy fields, from the production of vegetables and fruits added with animal raising which commonly practiced by kampung inhabitants, in the 1980s, there remained considerable numbers of urban subsistence production within the city limit of Jakarta, despite at that time Jakarta had been urbanized extensively. A study conducted in 1981 showed that at that period agriculture subsistence production contributed more than 20 percent of monthly household expenditure (Evers, 1981).

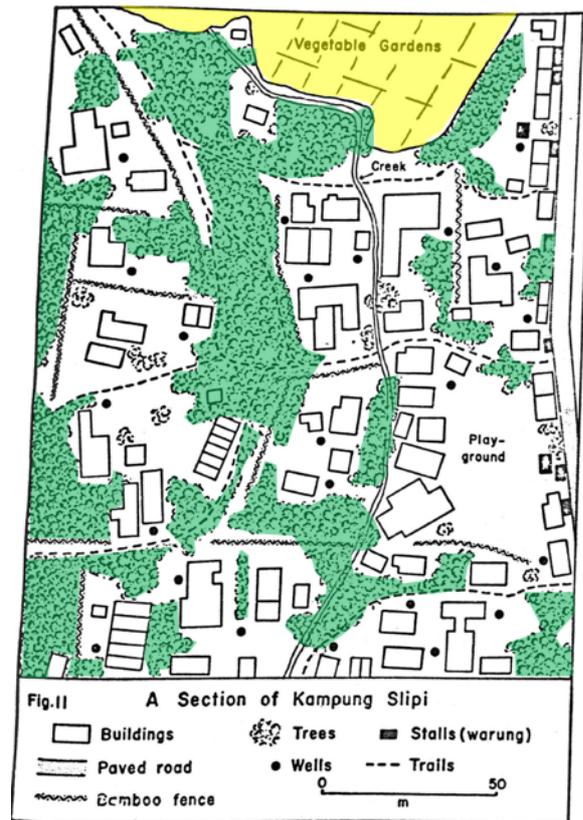


Figure 12. A sketch map of Kampung Slipi in 1975s with addition by author (source: Krausse, 1975)

Yet, indeed, as the *desakota kampung*, similar to the previous stage, the rural domain was co-existed with the urban domain. Many home industries such as domestic food processing and batik industries were functioning outside the kampung settlements, provide some employment to its inhabitants who did not farm anymore. Other average urban occupations that would be found on the kampung was day laborers, military personnel, and merchant selling homemade products such as sandals and baskets, besides those who remained to perform agriculture cultivation (Krausse, 1975, p.144). Still, the co-existence of urban and rural functions in the second *desakota kampung*, made them remained able to perform layered economy (Yokohari, 2017) and was environmentally superior compare to kampung which already lost all its rural characters (Krausse, 1975, p.143). All of those rural characters was there on the center area which just 2 kilometers' distance from CBD, where at

the 1970s the modern skyline of Jakarta had started to stand impressively (Ford, 1993, p.381).

3.2.4. *Stage 4 – Urban Kampung*

Now we have arrived in the final stage of kampung, the urban kampung. Like the name indicated, this is the stage of kampung where it finally lost all its rural character²² and thus transformed to be almost totally urban. But, it is not a happy ending story. At the end of kampung development stages, it turned into slums (see Jellinek, 1985, p.44). It was characterized as overcrowding, physically deteriorated, and limited access to urban services (Krausse, 1975, p.75). At least since the 1950s, it had been identified that some kampungs had turned into this dismal stage (see Jellinek, 1985, p.44), and the condition is continued until the contemporary time on many kampungs across Jakarta today. In this part, we will explain why and how the kampung has fallen into this situation.

The main factors which are able to explain are the flow of immigrants and thus a rapid exponential population growth of Jakarta. The most rapid population expansion occurred on Soekarno period (1945-1965). The population was doubling from 1948 (823.000) to 1952 (1.782.00) and doubling again to 3.813.000 in 1965. The steep increase of population was mainly because of large migration flows from the villages of Java, mostly from West Java and Central Java. A survey on the selected districts within the inner city in 1953 showed that 75 percent of people there were born outside Jakarta, while the census in 1961 to all districts of Jakarta revealed that only 51 percent of the population were born there (Abeyasekere, 1989, p.171). The most pivotal explanation of this massive flows of rural-urban migration was the political insecurity of the countryside because of Indonesian revolution (1945-1949)

²² We limited our statement here to the landscape and economic elements. Because, there are some ongoing discussion that the kampung in the central areas up to present time still maintaining rural characters on its socio-cultural aspect. However, this research does not discuss the socio-cultural aspect of the kampung.

aftermath, as elaborated by Kusno (2010, p.6), “The social and political unrest that plagued the surrounding regions of Jakarta, the economic difficulties in the villages, and not least, the 'modernity' of Jakarta, led many 'migrants' to abandon the memories of ruin in order to occupy the city of the future". The impulse to move to Jakarta on following the Indonesian revolution was greatly strong among many villagers, as a novelist Pramoedya Ananta Toer described that feeling, “The wind blows through the provinces whispering that once cannot be fully Indonesian until one has seen Jakarta” (Toer, 1955, in Kusno, 2010, p.6).

Many of these migrants, especially the poor ones, end up to settle in the kampungs. Jellinek (1985, p.37-38) explained that process on a kampung located in the center of an area of Jakarta, Kebon Kacang. Usually, the early settlers acted as a broker arranging migrants from their original region, their friends and relatives, to settle on their kampung. In the early flow migration, when the kampung was still possessed some agricultural lands (previous stage), relatives who arrived were allocated some land for cultivation. Some of them paid as rent others received the lands as a gift. But this early pattern of new settlers arrangement did not last long. As more and more people from the provinces came into the kampung, buildings gradually consumed all available land. Kampung soon loss its greeneries, either vegetable gardens or fruit trees garden, and traditional landscape of *pekarangan* on individual household land parcels started to disappear. Quoting her description, “When there was, literally, no more unused land for subdivision, the kampung dwellers began to partition off their houses.” This process indeed impacted the environment thus the land resources were soon depleted. The water was then polluted and the timber was used. Before this influx of migrants started, the earlier settlers obtained their necessities from those natural resources and obtained food consumption from their own agriculture. This process continued until turn the Kabun Kacang, which in the 1930s was still possessed a considerable amount of farmland, possibly on stage 3, to be a slum.

An experience of Ayip Rosidi, an Indonesian poet, could represent the situation of the early stage 4 kampung in 1951. As explained by Abeyasekere (1989, p.174):

“Coming from Jatiwangi in West Java, he was appalled at the place his uncle took him to live in. It was an alley in Galur sub-district, east of Senen Market. The area was only a few years old, very muddy and full of huts with with grass-tatched roofs. Rosidi lived for several years in one of these huts backing onto a river lined with privies. Houses were built in an unbroken row; his row measured 33 feet by 23 feet, and contained 57 inhabitants. The boy shared a bed with two other men in a small room inhabited by five people.”

Expressing the misery that he feels about the situation of that early urban kampung urban kampung of Jakarta, Ayip Rosidi wrote later:

“It was entirely beyond anything I had imagined before actually coming to Djakarta, and I felt nauseated. I had never, never thought I could live in such squalor. Yet little by little ... I grew familiar with Djakarta housing, knowing that it was sometimes possible to live in a row of shacks, as we did, only after some stroke of good luck.” (Ayip Rosidi cited in Abeyasekere, 1989, p.174).

Figure. 13, a picture of Kebun Kacang in 1985s, provides a visual description of that awful situation of the urban kampung. The map on figure 14 shows the spatial arrangement of an urban kampung, Kebon Sirih in 1975, also located in the center areas, shows how was the kampung on stage 4, different with the previous stages, did not obtain any agriculture anymore and landmass was full of building, almost no open spaces left. This kind of situation, which we could find since 1950, was continued until today, even has spread to kampungs on more periphery locations.



Figure 13. The condition of Kampung Kebon Kacang in 1985s
(source: Jellinek, 1985)

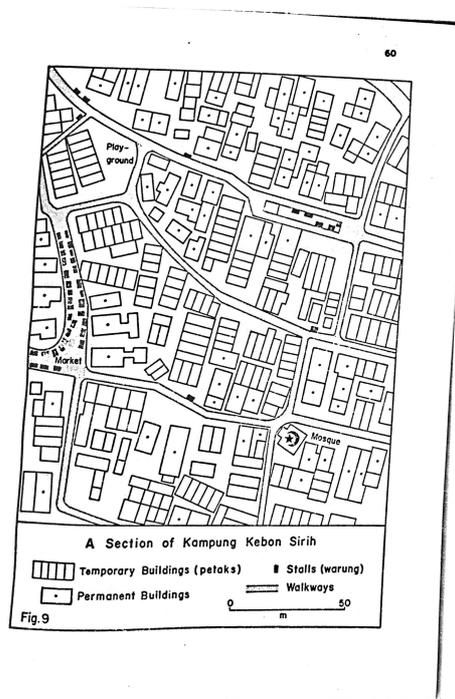


Figure 14. A sketch map of Kampung Kebon Sirih in 1975s
(source: Krausse, 1975)

3.3. Evidences from Oral History

In the previous sub-chapter, we have seen the historical records from written sources (historical literature and maps) as the foundation of four stages of kampung model. We now understand that the landscape history of kampung could explain the history of UPA in Jakarta. But, as we mentioned above, the written historical records mostly cover in a general

manner and focus on the central area of Jakarta. Therefore, in this sub-chapter, we will complement it with oral history, the history which based on the memory of the elders. As what has been explained on methodology chapter, the textual data from interview transcripts, after processed and categorized through the qualitative coding process, were analyzed by retrospective analysis. Therefore, the final form of result that we will explain here are the result of the retrospective analysis. From this, we can understand when the kampung was in stage 1, 2, 3, or 4.

The structure of this chapter will be as the following. First, it will be started by explaining the indicators and parameters for the retrospective analysis of kampung landscape history. Second, we will explain the detail of the lifespan of each variable that we used from each case studies kampungs. It will be accompanied with the explanation behind the lifespan of each variable at each kampung. From there, the stages that have been experienced by each case studies will be revealed. Third, it will be continued by looking at the general picture of all of the case studies kampungs stages in a different period. We will explain why the stages are different, what are the background stories behind it, and what factors that can explain them.

3.3.1. Retrospective Analysis of Each Case Study

a. Kampung of Slipi

Slipi was already in stage 2 in the 1940s (figure 15). Our respondents remember that before the independence time (1945), in the surrounding landscape of their kampung settlement there were already some business and office buildings. Therefore, it is not surprising that still in the pre-independence period, many of their kampung people, including some of their parents, worked as urban workers. Most of those urban workers were electrical and plumber handyman. They sold their services to the European and Chinese settlements in

the 'city', by went around using bicycles. It was possible as the Kampung of Slipi only 2 to 3 kilometers to the from the city center, and even closer to the one of the biggest city market, Tanah Abang. Some successful ones worked as a handyman in a company, as proudly told by one of our respondent whose father worked there.

However, in spite of those urban features, the agriculture remains exist in time until the 2000s. The wetland agriculture had to go earlier in the 1980s. Our respondents remember that until the 1950s, the wetland agriculture field surrounding their kampung were healthy with good paddies. Yet, after the netting factory built and operated in their kampung, it started to pollute their paddy field. In the 1960s, the paddy field owners decided to change from paddy to swamp cabbage, which was more resistant to the pollution. But, they finally gave up farming the wetland agriculture field. Many agriculture landowners decided to change their agricultural fields with rented housing which was more profitable. Practically, since the 1980s, they lose their agricultural surrounding landscape, the wetland agriculture field, and shifted to stage 3. Part of the reason was that of immigrant which started to come in a quite significant number—according to their perspective—after the Soekarno fell down and changed with Soeharto in the 1960s. In this period, the profession of landlords started to be mushrooming. Still, agriculture in the Kampung of Slipi struggled for next forty years after that, mostly because they succeed to shift their agricultural production from previously only for subsistence production to produce cash crop which was profitable in the market. The subsistence farmers practically had gone since the 1960s, and after that, there were only cash crop farmers. The cash crops farmers actually already exist since before independence period, yet started from the 1960s their number was significant. Most of them produced orchid flowers, and even in the 1970s to 1980s, this kampung was famous as orchids center in Jakarta, even nationally. They remember in that period, there were even buyers from overseas—they exported their orchids. One of our respondents proudly told us that he got

appreciation directly from the First Lady of the state as one of the most successful orchid farmers. That period was the golden age of their cash crop agriculture activities.

Since the 1980s onward, they remember that their kampung had changed a lot. Particularly because of housing development. The developer came to their kampung, and built a real estate housing took a lot of agricultural lands. It was made worse by the conversions of agricultural land which were done by the kampung inhabitants their selves. Many of them found farming, even though the cash crop one, did not profitable anymore. They found out that converting their land into new rent houses, and changed their occupation to be landlords—with much more less labor than farming—was much preferable. Rent housing inside the kampung settlement, mostly for low-income people, were mushrooming in Soeharto (1967-1998) because at that time Jakarta was experiencing an urban transition because of rapid economic development—centralized in Jakarta—which followed by rural-urban migration. But, agriculture somehow struggled for more or less a decade more, before, in the 2000s, they finally have gone. The kampung fell into stage 4, urban kampung, without any agriculture anymore.

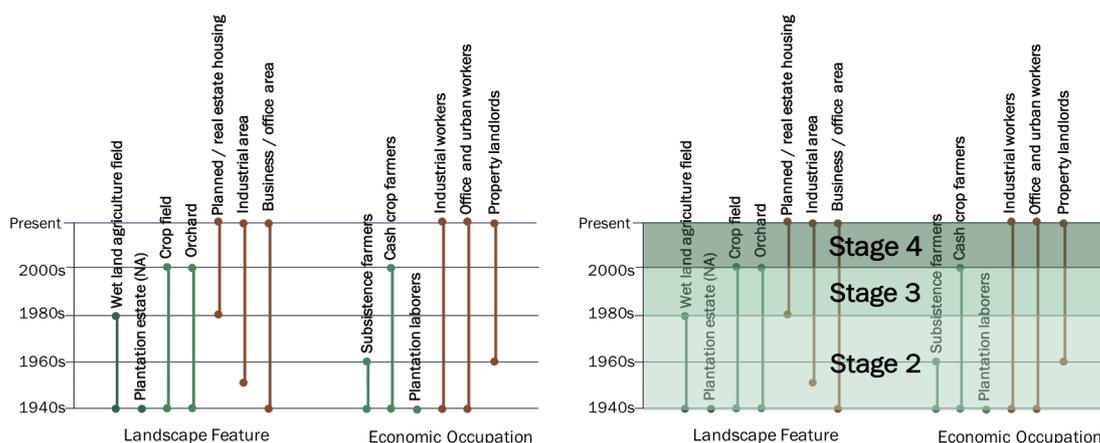


Figure 15. The retrospective analysis of Kampung of Slipi (source: author)

b. Kampung of Jagakarsa

Until the 1970s, this kampung was rural, or in stage 1 (figure 16). Jagakarsa kampung was famous for its fruit production, where there were fruit plantation estates until the 1980s. A landowner could have a plantation estate up to ten thousand hectares. It even recognized as one of the national fruit production centers. National fruit center yet located inside Jakarta city boundary. We can call all tropical fruits, and most of them were produced here: papaya, banana, mango, *rambutan*, durian, jackfruit, guava, star fruit, *melinjo*, *salak*, *duku*, orange. They perceived their life at that time was better by getting enough income as cash crop farmers or plantation laborers. But even though many of them were cash crop farmers selling fruits or plantation laborers who worked in one of the plantation estates, they also self-sufficient for their food, as they part of their agricultural land were devoted for paddy fields. Therefore, many of them also at the same time subsistence farmers.

The situation changed since the 1970s. As a kampung in the edge of Jakarta at that time, the rapid urban expansion started since the 1970s soon came to their kampung. The planned housings followed by business and office activities area emerged in their surroundings. The industry also came in the 1980s. They also were affected by the arrival of immigrants from rural areas, as their location still accessible from Jakarta's central business district, inducing many kampung inhabitants to convert their land for rent housings and they became property landlords, started to emerge in the 1970s. In the 1980s, there were already quite significant people worked in the industrial sector and also as office and urban workers. Many of them commuted to Jakarta CBD which accessible in around 10 kilometers from their kampung. Practically, they were shifted to stage 2 since the 1970s. However, even after the urbanization started to occur, the rural features remained for around the next forty years, put them to be *desakota kampung* for that period.

The subsistence farmers were the first rural feature which gone, that was in the 1980s. At that time, no one could not be subsistent anymore depend on their own agriculture production. But the rice field could hold a little bit longer until the 1990s. The similar story for the plantation estate. Many of them converted their land for rental housing, particularly after the lands were divided when inherited to the next generation, as they got the only partition of their parent’s land. With smaller land size, the profit from agriculture was smaller, and because of them many of them did not interested anymore and decided to convert their land for rental housing or sold it for quick cash in large number. This had shifted them into stage 3. However, considerable numbers of crop fields and orchards—for the latter, some of them were the result of fruit plantation estate partition— remained for the next 20 years until the 2010s. Therefore, we still able to find cash crop farmers until that time, even though many of them only did it for a secondary income, while they already had other urban occupation, usually low-skilled one, for primary income. Before started from the 2010s, it was decreased and almost disappear at all. Presently, there is still very little dry field garden, but mostly not producing or just left by the owners to grow wildly. Therefore, since the 2010s, we could categorize that Kampung Jagakarsa has been shifted to be urban kampung, stage 4.

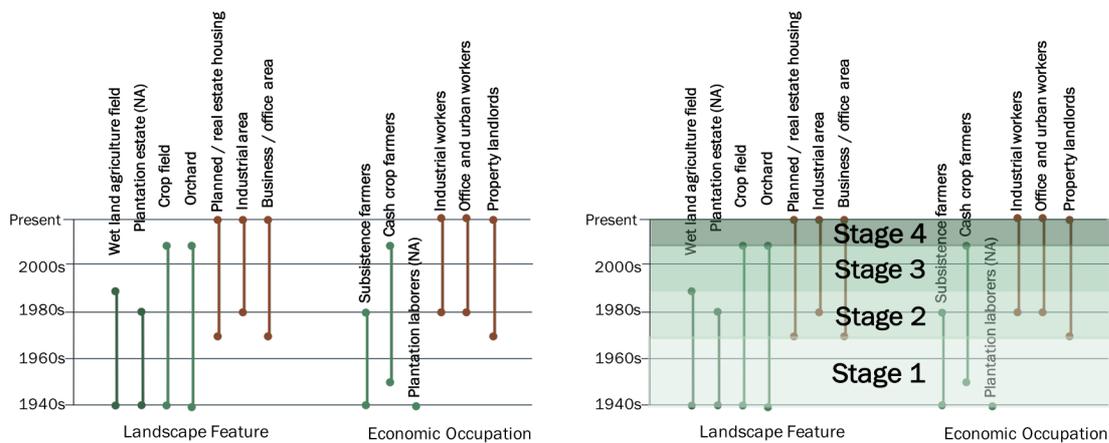


Figure 16. The retrospective analysis of Kampung of Jagakarsa (source: author)

c. Kampung of Pasir Putih

As a kampung located nearly 30 kilometers from Jakarta city center to the south, not many urban influences reach the kampung of Pasir Putih and it was remaining rural or in stage 1 until the mid of the 1980s (figure 17). Partly because of poor infrastructure access to their location. Most of the people there were subsistence farmers, whose food were self-sufficient from their own agriculture land. Some of them worked as plantation laborer in a rubber plantation next to their settlements, but stop functioning in the 1970s as the government decided to use it for landfills. The considerable change was started when in 1982 their area was merged as part of a new Jakarta's satellite city, Depok. Previously, they were part of Bogor regency where the regency administration center was located 18 kilometers to the south. As part of a new city, many urban infrastructure projects started to be built in their areas. As the result, urban development also followed. Real estate housing build in the mid of 1980s, followed by business activities areas along the main road which splitting their kampung.

In this point, this kampung was not rural anymore but transformed to be a *desakota*, the first *desakota* kampung or in stage 2. Many kampung people remain in agriculture, but many of them move for cash crop production, which had been started since the 1970s. In the beginning, the cash crop that they plant was guava, but since the 2000s they moved to star fruit as dominant crop. The change was based on market demand. Eventually, the paddy field agriculture was not reliable anymore, so they totally leave agriculture for subsistence living in the 1990s, and finally, the paddy field was gone in 2000s. As the new real estate housing development was kept coming and consumed more and more agricultural land, the agriculture for cash crop also was and is decreasing. Presently, there were remain considerable amount of crop field and orchard, and so do the cash crop farmers, but the

younger generation mostly worked in industrial sectors, office employees, or other urban jobs. Since the 2010s, the kampung people also have taken initiative to build rental housing and they work as property landlords, even though the number remains limited. Hence, as since the 2000s they have lost their surrounding agricultural landscape, since that time Pasir Putih Kampung was shifted to stage 3, the second desakota kampung. Up to the present time, they remained maintaining this mixture of urban and rural features, where agriculture, mostly produced star fruit, remain to exist between houses inside their settlement.

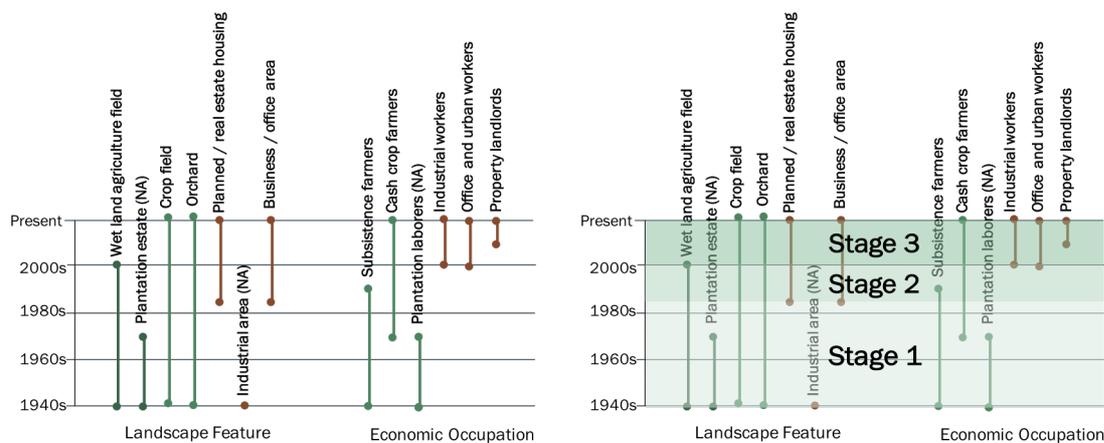


Figure 17. The retrospective analysis of Kampung of Pasir Putih (source: author)

d. Kampung of Mustikasari

The Mustikasari kampung was rural until the 1990s (figure 18). Our respondents perceived their kampung prior to 1990s as totally just a village like other villages in the interior of Java. It is a plausible perspective as even basic infrastructure such as electricity and asphalt road was developed in the mid of 1980s. Almost all of the inhabitants were subsistence farmers, with some minor additional working such as producing handicraft, and a small number of them migrated to Jakarta to make a better living.

Hence, in the 1990s, significant changes in their kampung and surrounding started. The Bekasi city, as a satellite city of Jakarta to the east where kampung of Mustikasari belongs,

was set as one of the industrial districts, together with other city/regency in the eastern part of Jakarta. In 1988, the toll road connected Jakarta and its eastern cities/regencies were built. Thus, in the 1990s, large industries appeared surrounding their kampung. Real estate housings were mushrooming. Followed by business/office areas. But until the present time, paddy fields still surrounded their kampung, despite the fact that most of that have been bought by some investor for future urban development. The agriculture practice also changed as urban development took place in their surroundings. Many farmers move from subsistence crops such as paddy field (the main) and vegetables to the cash crop, which mainly dominated by ornamental flower production. But there were remain some subsistence farmers, especially the older generation. As urban development occurred, some people also decided to change their income source from rent housing as landlords, by converting their agricultural land. Even though agriculture remains to exist in considerable number, but since the change in the 1990s most of younger generation choose to work in urban sectors, commonly as industrial laborers, but also as office employees and other urban low-skilled jobs. All in all, they were rural kampung, stage 1, up to 1990s, and started from that tie, it became the first desakota kampung, stage 2.

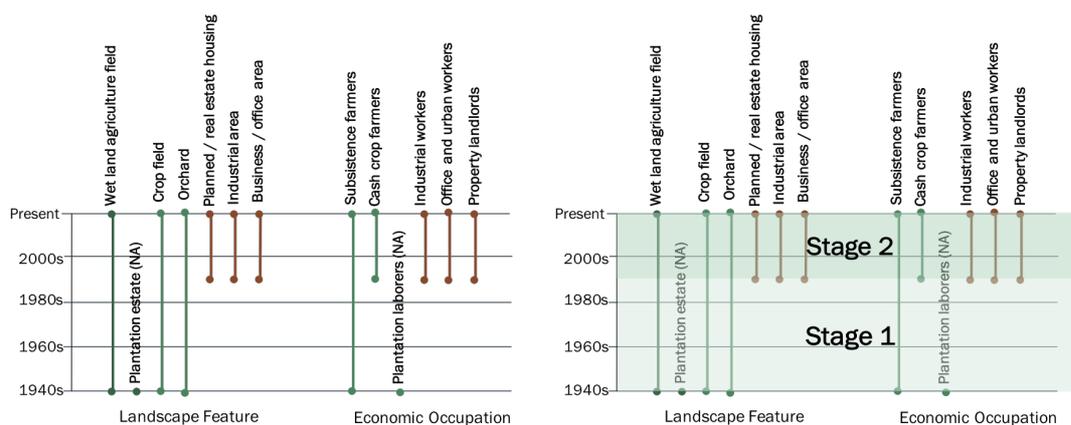


Figure 18. The retrospective analysis of Kampung of Mustikasari (source: author)

e. Kampung of Sukahati

The last case study, Kampung of Sukahati, was the farthest kampung from Jakarta city center. Located in the Bogor Regency, around 35 kilometers from the city center of Jakarta, it was closer to the Jakarta satellite city since colonial times, Bogor city, which is 10 kilometers to its south. With that distance from Jakarta, not surprisingly they were rural until the 1990s (see figure 19). Their kampung was next to a large rubber plantation estate operated since the colonial period. It took a large number of their surrounding landscape, and many of the kampung inhabitants worked as plantation laborers there. It stopped its operation in the 1970s, partly because of land conflict with people from the surrounding plantations. The kampung people, who managed to get some land parcels from the previously plantation estate area, many of them were ex-rubber plantation laborers, and they mostly planted it with cassava, as according to them, it was the easiest crop to plant. But it was also easy to sell to the tapioca factories which were accessible from their kampung. Thus, practically, they became cash crop farmers since then. Many of them were traditional farmers, the subsistence ones who planted paddy fields in their wetland fields. Besides planting paddy, they planted some fruit and vegetables on their crop fields and orchards inside their settlements.

The situation gradually changed and started in the 1990s. At that time, numbers of factories were operated in their surrounding area. Real estate housing started to appear in significant numbers since the 2000s, and so did business activities, particularly along the main road. Started in the 1990s, many young people had left agriculture and worked as industry laborers, office employees, and other urban jobs. And, recently since the 2010s, some farmers also decided to build rent houses and became property landlords. Agriculture keeps decreasing, yet they are remaining until the present time, although since the 2000s, practically no subsistence farmers anymore, they only do agriculture for the market as cash crop farmers. Hence, similar

to Mustikasari kampung, they were stage 1 – rural kampung until the 1990s, and now there are in stage 2 – first desakota kampung started from 1990s.

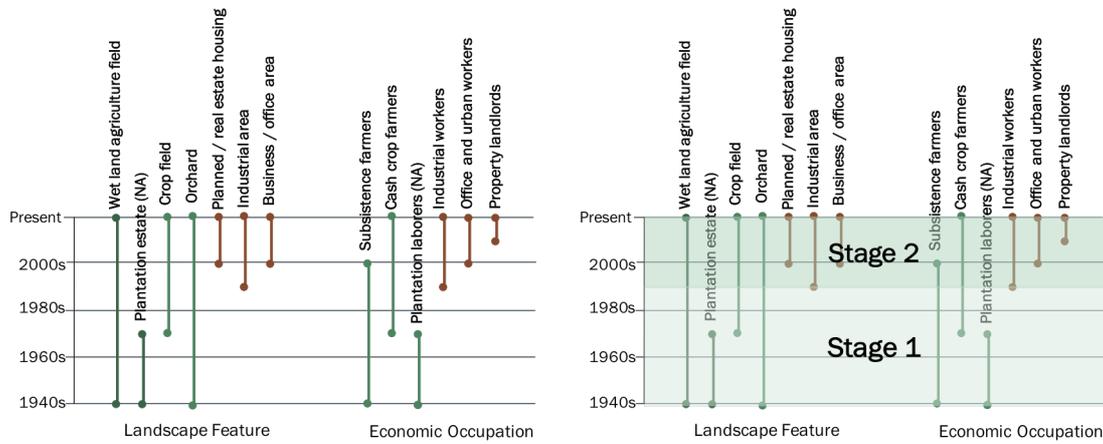


Figure 19. The retrospective analysis of Kampung of Sukahati (source: author)

3.3.2. General Picture of Kampung Four Stages from All Cases

After looking at the retrospective analysis of the individual cases, and knowing the lifespan of each variable—both landscape features and economic occupations—now it is time to at all those cases at the same time to build some general explanation. The figure 20 to figure 25 put the stages of each case study on the satellite image from that moment. The satellite images here are available since the year of 1985 and continued consecutively for 10 years' basis until 2015. For the period before 1985, we just put it on the plain administrative map of Jakarta and its surrounding, each for the 1940s and 1960s, as the satellite images are not available yet. From this figure, we can understand how the spatial location influences the shift of kampung stages. Besides, the figure 26 provide a simpler overview, by looking at the distance from Jakarta city center, year, and the shift of kampung stages.

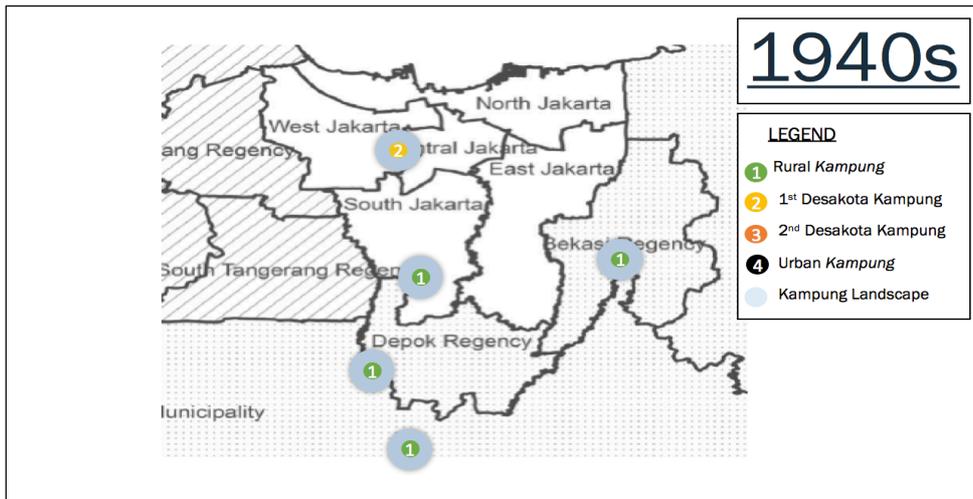


Figure 20. Case studies kampung stages in 1940s (source: author, the base map from Pribadi and Pauleit, 2015)

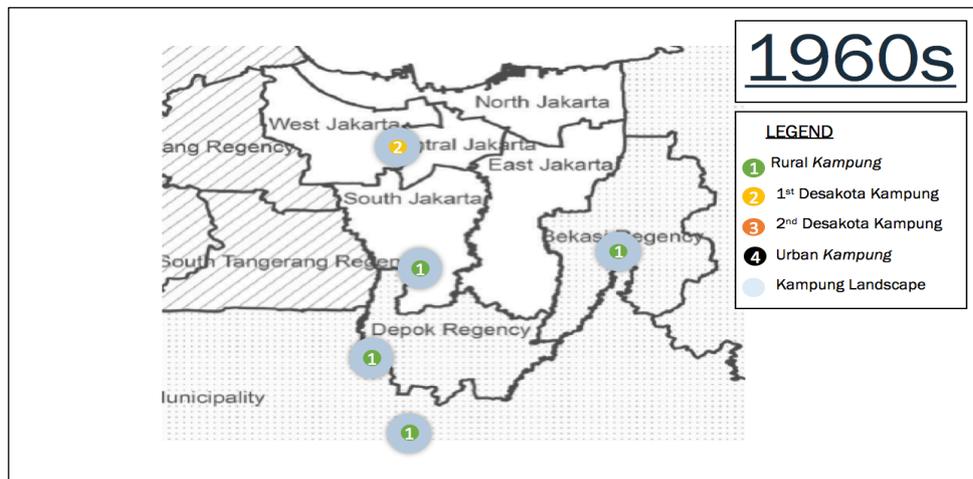


Figure 21. Case studies kampung stages in 1960s (source: author, the base map from Pribadi and Pauleit, 2015)



Figure 22. Case studies kampung stages in 1985s (source: author, base map from maps.google.com)

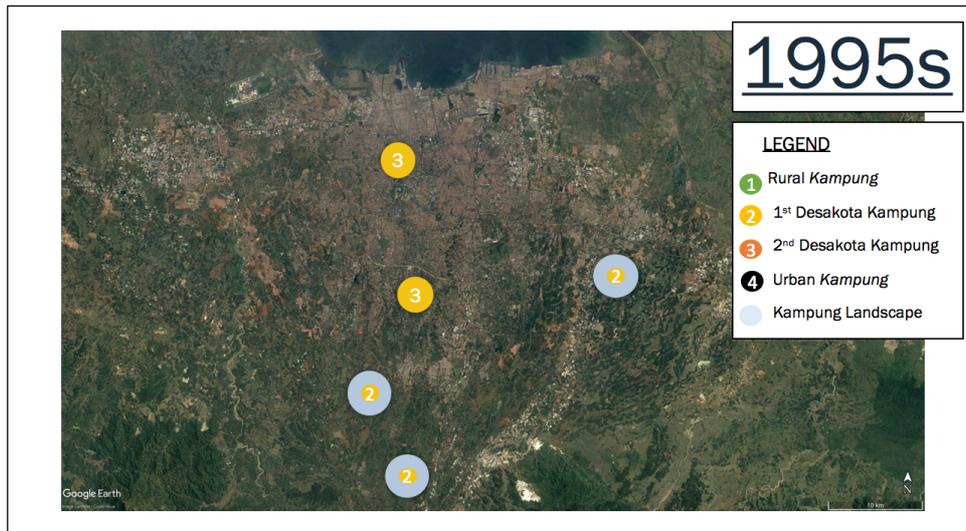


Figure 23. Case studies kampung stages in 1995s (source: author, base map from maps.google.com)

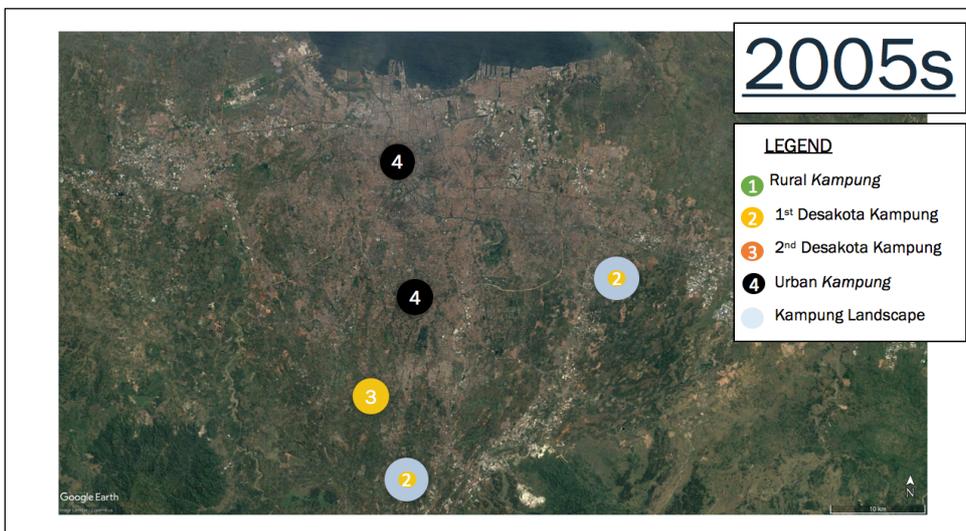


Figure 24. Case studies kampung stages in 2005s (source: author, base map from maps.google.com)

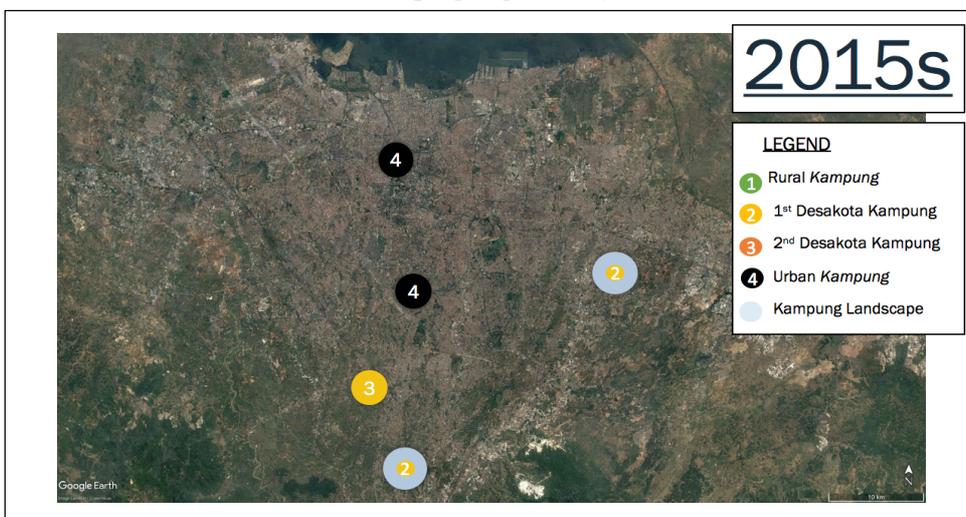


Figure 25. Case studies kampung stages in 2015s (source: author, base map from maps.google.com)

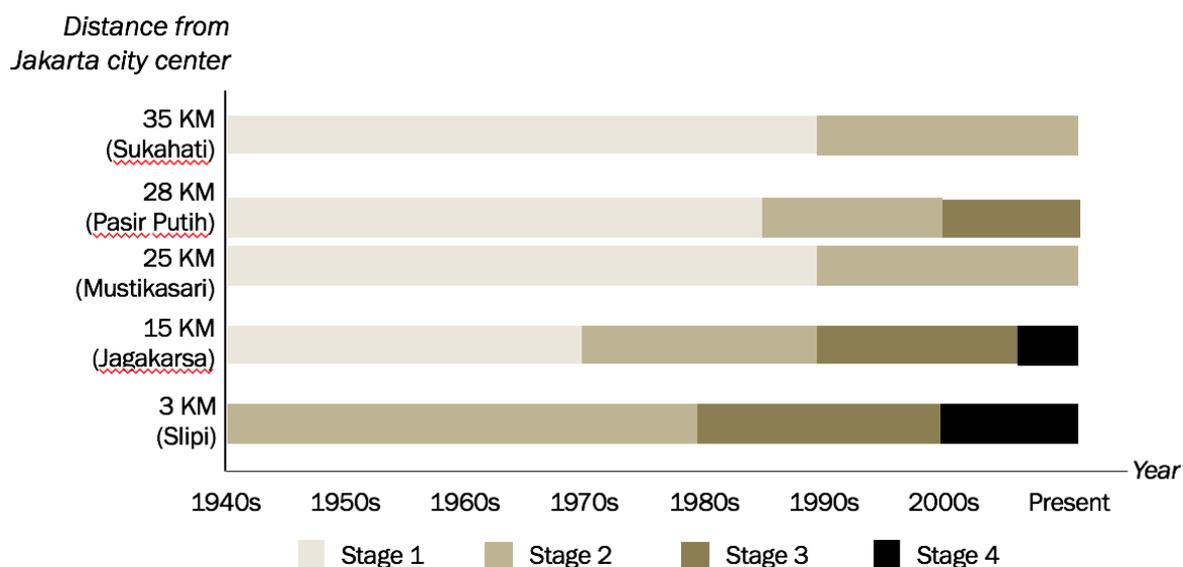


Figure 26. Stages of case studies kampung in space-time dimension (source: author)

There are a number of points that can be explained by those figures. The distance from the city center is matter. Slipi which just located 3 kilometers from city center already stage 2 in the 1940s, as it was located in the edge of the colonial city. The others remained rural for a while, for the next 30 years, until the Jagakarsa which located 15 kilometers started had a stronger interaction with the city and follow the Slipi to be transformed into stage 2 in the 1970s. The other three cases, which located in the distance up to 25 kilometers, just transformed in the 1985s and 1990s, or need to wait 15 to 20 years more. These are how all cases studies shifted from rural into *desakota kampung*, the first *desakota kampung*.

Next, we can see how long they stay as *desakota kampung*, the first and second, before totally lost all their rural feature and become urban kampung. Slipi experienced the longest *desakota* stages compare to other cases. It was the first *desakota kampung* in 1940s-1980s or for around forty years (if we do not count the period before the 1940s which could not be revealed because of the limitation of oral history), and the second *desakota kampung* in 1980s-2000s or for around 20 years. It was sixty years in total. While, the next nearest case in distance, Jagakarsa, only experienced *desakota* stages phase for around forty years since the

1970s to 2010s. The other three which located farther are still in desakota stage, in the first desakota kampung for Mustikasari and Sukahati, and in the second desakota stage for Pasir Putih. They are already in this desakota stages for twenty to twenty-five years. We cannot predict how long they will stay in the desakota stages, but our respondents remember how fast their kampung was transformed from a rural kampung into presently urban features appeared ubiquitous. For Mustikasari, almost all remaining wetland agriculture fields are already bought by investors, just wait for development in near future. The Pasir Putih is already on the second desakota stage and the new housing projects keep on going. Similar to Sukahati where many new housing projects are also developing. A similarity between those three outer cases are, the younger generation is leaving agriculture. Perhaps, it can be predicted variables that the agriculture in those kampungs will not last too long from now.

The satellite image which shows the urban expansion perhaps can explain they the length of desakota stages phase is different among cases, particularly Slipi and others. The urban built-up area has been expanding rapidly in the 1985-2015 period. According to Rustiadi et al (2015), in the period of 1972-2012, the built-up area has expanded 31-folds, a massive expansion. Since the 1970s also, the rapid economic growth happened in Indonesia which centralized in its capital, Jakarta. Many modern urban development projects started since then, and the former colonial city conjured up to be a city of modern skyscrapers. That is perhaps why, the Slipi which only 3 kilometers from the city center could maintain its agricultural surrounding landscape, as the first desakota kampung, up to 1980s. Then it lost its surrounding landscape, yet its position as orchid production center made agriculture inside its settlement remained for the next twenty year. While for Jagakarsa, when Jakarta rapid city expansion started in the 1970s, it rapidly reached its kampung in the same period. But as the city expansion kept pushing it, this kampung gave up its surrounding agricultural landscape in the 1990s, twenty years after. They could not keep the surrounding agriculture which

adjacent to urban built-up, as the first *desakota kampung*, as long as Slipi. But it is interesting to see that Jagakarsa was able to maintain the agriculture inside its settlement for twenty years, similar to Slipi. While, for the other three cases, urban expansion started to touch them in the period of 1985s-1990s, and they transformed into *desakota kampungs*, until the present time. If the same pace of urban expansion is keeping occurring, by assuming there is no major intervention to stop it, possibly the duration of *desakota stages* phase of those three outer cases will be same with Jagakarsa.

CHAPTER 4: DISCUSSION

This chapter provides a discussion based on the result presented in the previous chapter. We structured this chapter by divided the discussion into the practical discussion and theoretical discussion. On practical discussion, we discuss how the four stages of kampung model imply the effort on restoring the deteriorated kampung and on applying UPA in the city. On theoretical discussion, we discuss the theoretical implication of this four stages model of kampung on the layered model on understanding the city and the impact on sustainability; and, the discussion on the theoretical implication of this model to the concept of desakota.

4.1. Practical Discussion: Restoring Kampung, Applying UPA

The exploration of landscape history of kampung revealed how agriculture, even though the kampung has been surrounded by an urban setting, is historically embedded in the landscape of kampung and in the socio-economic system of the people of kampung on helping them sustaining their livelihoods. Kampung, then, is a zone in the city where urban and peri-urban agriculture could be found in Jakarta, historically. This new understanding on kampung would bring implications in practical realm i.e. on the urban and regional planning of the city on achieving sustainability of the city-region, particularly in this case, on the urban planning effort to apply UPA and an effort to restoring the kampung which today many of them have been transformed into “slums”. These two efforts which would be implicated by the new understanding from our result are in the situation of interplay. The effort to restoring kampungs would be, if we want to follow what history has taught as, suggested to be based on agrarian approach, while, the effort to installing UPA would be suggested to utilize kampung.

In restoring kampung, the findings of this research suggested that it should be through restoring the agrarian landscape and socio-economic systems. Some of the kampung, particularly kampung on the central area of Jakarta, has been in a deteriorated condition. Our four stages of kampung model contributed to explaining how it happens. It happens as all agriculture landscape and thus agrarian socio-economic of the kampung is lost. The kampung people surrendered their agricultural lands for urban development, one of the direct reason was that of population pressure. The agrarian system in kampung has perished and so does the interconnectedness between the kampung settlements and its agricultural landscape. As the effect, the layered economy where farmers' household could run rural and urban economy together which allow the kampung people to sustain their livelihood relatively independent in the midst of urbanization is not functioning anymore. The result is, the people of kampung then must depend entirely on the urban economy, but as most of them are from farmers' household, they could not perform well in this sector, while, they already lost their roots in the agricultural economy. It makes them left behind in urban development and transformed to be a backward area of the city. The root of all of it is the disconnection of kampung with agriculture. Therefore, restoring effort of kampung is should include the restoration of agriculture landscape and thus the layered economy. Indeed, there is almost no land left for the kampung people to perform agriculture, but the development of agricultural technology such as vertical farming, hydroponics, aquaponics, etc. could overcome this problem. This could be a suggestion for future study to restoring agriculture in the kampung by considering its historical roots.

We should not forget that the kampungs in more periphery areas of Jakarta are still maintaining their agricultural landscape and socio-economy. Those kampungs are still in stage 2 or 3, and its agriculture is performing as peri-urban agriculture. There, we still find layered economy is performing by the farmer households as some of their household

members are working in the urban sector, while some others in agricultural. From the Kampung Four Stages Model we understood that as the urban expansion continue to occur and the kampungs are left along to encounter the pressure of urbanization, most possibly resemble the kampungs in more central location, they also will lose and surrender their agricultural landscape, and as it happens, they transformed to stage 4 kampung and deteriorated. Therefore, the practical implication for the kampungs in the periphery is an implementation of kind agricultural protection. We will not go into detail as it is not what we explore through this landscape history study, but many kinds of planning tools could be utilized for this, e.g. zoning regulation, incentive and disincentive policy (such as tax deduction for farmers), or spatial integration strategy (between [peri-urban] agriculture with urban functions and economies).

In the other side, and interplayed with this restoration of kampung discussion, another implication of our kampung four stages model is that the application of UPA in Jakarta is better to be implemented by taking kampung as its foundation. Presently, for the urban agriculture, Jakarta Provincial Government has formulated a grand design to apply urban agriculture, in a grand design named Jakarta Province Urban Agriculture Grand Design 2018-2030. There is hardly found kampung in the grand design (only mentioned three times!). The kampung is only seen for its physical aspect, where the kampungs' alleys are considered as space target for urban agriculture application. While our findings showed that agriculture has deep historical roots in the kampung and for long has been functioning as urban and peri-urban agriculture for the city. The agriculture in the kampung and its connection with the city is not a by design result, but organically developed. That is means, the agriculture of kampung, which lasts in quite long times in urban settings, is a result of a long process as the response and adaptation of the people there based on the environment, economic, and socio-economic settings in their areas. In other words, the agrarian landscape of kampung is a

vernacular landscape of Jakarta. Therefore, rather than implemented completely new urban agriculture projects, moreover through imported urban agriculture concepts, installation of urban agriculture based on the vernacular solution is indeed better as that is means it is suitable with the local environment, economic, and socio-cultural context. Kampung should not be ignored in UPA implementation. The future work then should study how to revive this vernacular landscape of Jakarta in a detailed manner, in order to activate its past functions, as the agriculture inside the city, which would support the sustainability of the city.

4.2. Theoretical Discussion

4.2.1. Kampung, Layered Model, and Sustainability

The exploration of the landscape history of kampung revealed a new approach to understanding the landscape of the urban region. The kampung four stages model revealed that in history, in a spatially delineated area, we would find layers of rural and layers of urban were sharing the same space, and the composition of those urban and rural layers were dynamically changed over time. As what we have seen in the kampung landscape, it would be hardly understood if we consider that particular area as merely urban or rural and from a static point of view. Furthermore, it is not—like other parts of the city—an area where originally rural but then vanished by urban development projects and thus instantly the rural becomes urban. Because in the kampung, the process of transformation of rural to urban was happened very slowly, where the urban layers came one by one without rapidly effaced rural layers which already existed there. Therefore, in quite a long period of time, the rural and urban layers were sharing the same space. It results a multilayered space of rural and urban character, generating a distinct nature of the area. This model of conceptualization of the city by revealing the existing layers is labeled as a layer model, a term which coined after Yokohari (2017).

As we have seen from the landscape history of the kampung, since colonial period to the present time, the dynamics of urban and rural layers were moved in a direction from rural layers' domination toward urban layers' domination. However, it does not mean that it is the general pattern of this urban-rural layers' dynamics. The rural layers' domination toward urban layers' domination as what we have seen from history actually is a result of forces which worked in those periods.

We can refer some examples of them. A most notable one is economics, where the introduction of capitalism by the colonial power and the continuation of market power domination after independence encouraged spatial agglomeration of economic activities in the city, which as consequence required the geographical expansion of the urban infrastructures to absorb surplus-values as well as to facilitate activities of the market economy. It was in line with industrialization which started since the beginning of the twentieth century in Indonesia, where an agglomeration of labor power was a requirement. Centralization of national political and economic powers in Jakarta which occurred strongly during Soeharto regime also gave pressure on the development of urban layers as surplus-value from the many parts of Indonesia ended in Jakarta. Rural-urban migration from the countryside to Jakarta, which resulting demographic growth—besides growth from natural birth—also one of the factors which as consequence required developments of many new urban layers to accommodate the increasing population.

Yet, all those factors are not eternal. Therefore, it is possible in the future to reserve the direction of this dynamics by changing the factors. We have seen some of the changes in our time. Decentralization of economy and political powers have been set since Reformasi period (1998-present), and theoretically, it would reduce the rural-urban migration pressure of Jakarta²³. The most significant one, perhaps, is the growth of environmental paradigm in the

²³ See Lottum and Marks (2012)

society which thereof influence government policy. Many movements, either from government or society are inducing environmentally decent programs for the city to increase the green spaces, as one of them is through the introduction of agriculture in the city. It is to encounter the market forces to build any available rural layers for urban development. Possibly in the future, we would discover other kinds of forces which encourage the rural layers instead of the urban one. Thus, the direction of the layers' dynamics can be reserved from urban into rural layers' domination.

Hence, it should be the way we understood the city region of Indonesia, even perhaps of Asia, and how urbanization is occurring there. The city consists of multiple layers, which in general they are either urban layers or rural layers, and that the composition of those layers is dynamics over time. Thus the urbanization then actually refers to the "exfoliation" of the rural layers one by one and replaced by the new urban layers, one by one. But a consequence of this new understanding is, that it is possible then to "paste" new layers to the city region in order to achieve the desired future. Therefore, if we desire to achieve sustainability of the city region, then we could add the layers which could support that it. As we have discussed in before that the agricultural landscape is one of the layers which could support the sustainability, thus, using this layered model, what we need to do is to apply that layer to the city. One more comment on this, restoring a layer which used to be present is indeed an easier way rather than applying a completely new layer, therefore, the *kampung*—as we have discussed in the previous sub-chapter—is relevant here.

4.2.2. *Kampung and Desakota*

Our exploration on the landscape history of *kampung* also opens a new interpretation toward the concept of *desakota*, a concept which has been widely accepted in explaining the Asian cities-regions. *Desakota* itself (coined from Indonesian: *desa* means rural, *kota* means

urban) originally proposed by McGee (1991) as he observed and thus theorizing the regions in Asian cities-regions which have a distinct character as “...regions of an intense mixture of agricultural and nonagricultural activities that often stretch along corridors between large city cores.” There is two interpretation we can develop from our exploration of landscape history of the kampung. First, that kampung actually is the main components of desakota region. Second, the desakota-like character where urban and rural land use and activities where mixed is actually could be found in kampung prior to urban transition—a starting period where desakota is perceived started emerged.

Beforehand, we would like to elaborate little the discussion of desakota itself. The desakota concept is developed in a context of understanding Asian urban transition, which argued by him that “the conventional view...which assumes that the widely accepted distinction between rural and urban will persist as the urbanization process advances view [as like Western cities experience] ...needs to be re-evaluated.” Therefore, this concept eventually “attacked ‘the persistence of urban-rural paradigm’” (Dick and Rimmer, 1998) and portrayed as “a qualitatively new form of human settlement within the extended metropolitan region.” The urban transition of Asian cities itself, including Jakarta, is started since the 1970s (Sui and Zeng, 2001). By some desakota is considered “a form of development which is generally acknowledged as being both largely unplanned and following the interests of free-market capitalist development” (Leaf, 1996). Therefore, when well planned development touched the region, the empirical condition then moving away from “unplanned” desakota concept and transformed to be the stage of post-suburbia, where “a deconcentration of hi-tech industries and multinational companies, converting formerly neglected rural hinterland into planned suburban industrial estates” (Hudalah and Firman, 2012).

The term *unplanned* here should remind us of the same labeling which pinned on kampung, as an *unplanned settlement*. It is not a coincidence, because as the first point we would like to state here, the kampung is a main component of desakota. The desakota regions was originally a landscape of kampung or group of kampungs which, as we have elaborated in chapter 3, at first was rural. We need to recall here our conceptualization of the *kampung landscape* which refers to the kampung settlement and agricultural/natural landscape on its surrounding which interconnected with the people living in the kampung settlement. But, then, the rural layers of the kampung landscape one by one peeled off as the urban layers appeared. Those installed urban layers were not only in form of landscapes (spatial) but also in socio-economics, which means, the socio-economic system of the kampung people itself also transformed from rural into a mixed with urban socio-economics. Thus, in time, the kampung transformed from an originally rural area to be an area where—citing McGee—“urban and rural land-use and activities is mixed” or then labeled as desakota. So, the then newly installed urban layers, such as real estate housing, leisure area, cottage or large industries, business areas, they stand on the spaces which used to be the landscape of kampung in form of agriculture, and therefore, they are then basically the “new” landscape of kampung. Indeed, it is hard to say that those urban land-uses on the landscape of kampung are still appropriate to be considered as the landscape of kampung, as some of the activities on the areas are inaccessible to the people of the kampung. But, our oral history result also revealed that those areas are then become the “landscape” where people of kampung make a living, could be as a market gardener which sold to the inhabitants there, as labors in the factories there, as domestic workers in the real estate housing there, and so on. Hence those urban layers on the “new landscape” of kampung perform a similar function with the “old landscape”—wherein some period of times both are co-existed side by side—that is, agriculture and natural landscape.

The second point is related to history. The widely accepted understanding of the emergence of *desakota*, as we have stated earlier, is that *desakota* emerged since the Asian urban transition started in the 1970s. However, our exploration of landscape history of *kampung* revealed that *kampungs* in Jakarta actually had an urban-rural mixture character prior to 1970s period. Evidence both from written and oral sources that we had elaborate in chapter 3 shown how the *kampungs* since the late colonial period at the beginning of the twentieth century, was in a condition of an urban-rural mixture. To recall some of them, in that period, the people of *kampung* in the center area of Jakarta worked both in urban and rural sectors, as the *kampung* landscape was side by side colonial urban areas which then from *kampung* perspective became part of their landscape. Therefore, they did agriculture, but also worked as carpenters, *sado*/cart drivers, blacksmiths, and laundering, and engaging in cottage industries producing shoes, hat, mat, and textile (recall in sub-chapter 3.2.2). From our oral history *kampung* case, the *kampung* of Slipi which also located in the center area of Jakarta since the 1940s has been in stage 2 where many *kampung* Slipi people worked as electrical and plumber handyman, but at the same time, many others worked in agriculture. That situation is resembled of what McGee observed in the areas which then he labeled *desakota* in 1991, as well as the *desakota* region today. Indeed, there are some differences here and there, particularly for something which sensitive to the technological and political changes such as the type of industries which in post1970s is more dominated with hi-tech capital intensive, or the government perception of the area which definitely different between colonial administration and the independence national government (even between before and after decentralization is applied would be different), or the speed and range of mobility which also mentioned by McGee because the of the difference in transportation technology. Yet, the basic concept or the system is same, that is—again using McGee own word— “a mixture of urban and rural land-use and activities”. Therefore, we need to revise the argument said that

desakota emerged since the 1970s, the “desakota” is has been there long before it! The implication from here then, perhaps, that desakota characters is something which embedded with local socio-culture and environment (resources, climate, etc) which drive the emerging of such kind of urban-rural mixture. Because, I need to cite Reid (1980) once again in this text, that the character of Southeast Asian cities before colonial came, rather than a compact and usually walled cities in other regions, were more looks like “the aggregate of villages”.

4.3. Limitation of the Study

In this part, we will explain some limitations of this study, and thus what is need to do in the future study of the same topic to overcome it and make progress from it. First, the historical literature and archives as the data sources in this historical approach research are limited to the literature and archives written in Bahasa Indonesia and English because of language limitation of the author. While it is widely acknowledged that a large number of historical literature and archives about Indonesia particularly of Dutch colonial period are written in the Dutch language. Second, similar story, we also did not access the sources in Japanese for the same reason. It made us have to skip much information regarding Jakarta and its kampung during Japanese occupation on Jakarta from 1942-1945. Third, those Bahasa Indonesia and English written sources that we successfully access then also limited to the literature and archives stored in Indonesia. It is widely acknowledged that a large number of those sources are stored in Dutch particularly for the Dutch colonial period sources. For this case, we were highly helped by the digitation of archives done by Leiden Universiteit which we could access via the internet. We got many important sources through that link particularly in form of historical maps from the Dutch colonial period.

Forth, and we moved to the oral sources, is about the number of case studies. The limitation of time, labor, and distance made us should limit the number of case studies into

only five. Therefore, we did not intend to generalize our findings to overall Jakarta. But for this limitation, we have tried to cover it up by the written sources and spread those five case studies into every ten kilometers of the radius. Five, to understand in more confidence on how a kampung transformed from stage 1 to 4, we actually need to add more case studies in the central location, because our case studies which located in periphery areas do not experience all four stages yet. Sixth, the retrospective analysis was limited to only able to reveal the lifespan of each variable we wanted to know, but we could not know the magnitude of each variable. This kind of limitation should be covered up in the future research by a method which is able to apply quantitative measurement. And, finally, the seventh, and perhaps the most obvious one is that oral history is based on memory, therefore the possibility that the memory of the people is incorrect (if they forgot what really happened), but, we have tried to cover it up by triangulation of information from multiple elders. As we interviewed eight to eleven elders for each interview half to one hour on average, we have tried to minimize the incorrectness of the memory. The triangulation method made refined some statements from our respondents which contradict with others and did not make sense to the written sources which have informed the general tendency.

CHAPTER 5: Conclusion

The thoughts and perspective on view of kampung in Jakarta should be changed now. Apart from problems existed in the kampung, it was the place whence organic urban and peri-urban agriculture of Jakarta were there. Reviving its inherited potency then would be an important way of providing Jakarta functions which could support sustainability and resilience of the city.

The dominant perspective on kampung today remains dominated by the negative perspective. Many scholars have refused to categorize it as slums anymore, for several historical, socio-cultural, and political reason, yet they do not attempt to enhance further what kampung could contribute to the city, and therefore urge the kampung in the future turn its position from a problem of the city to be part of the solution. Thereof perspective toward kampung remains dominated by the negative outlook such as the area of “poor-infrastructure and services”, “unplanned” and “habitat of low-income people”. Without intending to ignore all of the existing problems, this research attempted by hypothesized that there is possibly a positive attribute of the kampung which we could trace from history and that is its distinguishing feature as areas which able to perform agriculture in and surrounding the city. That kind of performance is celebrated by various of the latest research on cities that it would support sustainability and resilience for the city.

Therefore, this research attempted to understand the history of kampung and reveal its agricultural attributes, whence, would be able to explain the origin and decline of urban and peri-urban agriculture in Jakarta. The main methodological approach that we applied is landscape history, and we utilized both written and oral sources of the history. By doing so, we were able to build some explanations on how the landscape history of kampung was, particularly on its relationship with agricultural attributes. We then presented our findings by developing an explanatory model which we named kampung four stages mode. This model,

supported by historical information as its foundation, explains that kampung in its first stage was rural, both on its physical landscape and socio-economic which related to its landscape. That is the stage 1 – rural kampung. In the next stage, the urban layer of in the landscape of kampung started to emerge as urbanization approached it and the people of kampung performing both agricultural and urban economics. This stage is the stage 2 – first *desakota* kampung, and the people of kampung there is actually performing the peri-urban agriculture. In the next stage, that we named stage 3 – second *desakota* kampung, the in the kampung surrounding landscape all of the agricultural components is replaced by urban built-up. But, interestingly, the kampung people do not immediately surrender its agricultural attributes. Even though has been surrounded by urban landscape, the kampung people remain to maintain agricultural activities inside their settlement area and thus some of them still performing agriculture, and this is actually the urban agriculture activities, which organically appeared. And, the final stage is the stage 4 – urban kampung, a condition where all of the agricultural attributes is gone and therefore environmentally kampung is deteriorated and economically the people of kampung becoming less viable because they lose agricultural layers of their economy which before they were dependent on besides from urban economic sector.

The kampung four stages model is a new interpretation of kampung (landscape) history which based on secondary data sources of historical literature but also the original data of oral history. However, our focus of on kampung and its agriculture revealed a new observation on how agriculture is actually the main part of the kampung in the history (and today for the kampung in more periphery areas). These findings also give us a new insight into how we should understand the Indonesian and even Asian cities. The mixture of urban and rural features is now manifested. And to understand it we need a new analytical tool, and here the need to utilize and develop further the layered model become a need. Through this

layered model, we could apprehend the urban and rural features embedded in an area, such as kampung where we had exercised, as we approach the area we would like to apprehend by peel off one by one the layers, either belong to urban or rural, and thus able to comprehend the urban-rural mixture there. And this research contributed further this analytical tool by revealing that those layers are throughout history is keep dynamically changing according to the forces at that time, and therefore by intervening those forces that mean we could direct the dynamics of those layers to the direction we want.

Thus, practically speaking, from that theoretical point of view, that is mean we could utilize the layers on an area to achieve the goal we desire. To achieve the SDGs' point which related to the city, that is the goal number eleven "sustainable cities and communities", therefore, the findings and discussion of this research about kampung and agriculture give a foundation how we should restore the kampung and installing urban and peri-urban agriculture in Jakarta. For restoring the kampung, that means, we should restore the agricultural layers which in the long period of time in the past was present there, and some remaining components which connected the kampung with that agricultural past remain presence today. But that action is actually like two sides of a coin with installing UPA in Jakarta as if we able to restore those layers, that is means, UPA is installed in Jakarta. And this way is what we argue as vernacular solution contrast with importing means from overseas cities which is alien to the local environment and socio-cultural.

One more insight that we got from this research is that our new understanding of kampung implicated us to interpret the desakota concept in a new way. Desakota is a major concept in the discussion of Asian cities. There is two point our research could contribute to give new insight into the discussion of desakota. First, the main components of desakota region in Jakarta (and perhaps other Indonesian cities) is kampung. The urban-rural mixture phenomenon which explained in the desakota concept is actually referred to the kampung

landscape complete with all of its agriculture which has been transformed due to urbanization and thus mixture character emerged. Second, the desakota phenomenon which perceived by most scholars as the phenomenon of post-urban transition of Asian cities which started since the 1970s, is refuted by our observation that such kind of desakota or urban-rural mixture character was actually has been obtained in kampung at least since the late Dutch colonial period or at the beginning of the twentieth century.

In conclusion, although facing many problems since past years, the landscape of kampung conceal an important potency which important in supporting the sustainability of the city, that is, an organic urban and peri-urban agriculture. The landscape history exploration which done here, reveal that potency. What we need to do from this point is then strive on how to restore it.

References:

- Abeyasekere, S. (1989). Jakarta: A History (revised edition). Singapore: Oxford University Press.
- Antrop, M. (2004). Landscape change and the urbanization process in Europe. *Landscape and Urban Planning*, 67(1–4), 9–26. [https://doi.org/10.1016/S0169-2046\(03\)00026-4](https://doi.org/10.1016/S0169-2046(03)00026-4)
- Atman, Rudolf. (1975) Kampong improvements in Indonesia. *Ekistics*, Vol. 40, No. 238, 216-220. Retrieved from <http://www.jstor.org/stable/43618571>
- Babbie, E. (2007). *The Practice of Social Research* (eleventh edition). Belmont: Thomson Wadsworth.
- Blusse, L. (1981). The Rise and Fall of a Chinese Colonial Town. *Journal of Southeast Asian Studies*, 12(1), 159–178.
- Blusse, L. (1985). An Insane Administration and an Unsanitary Town: The Dutch East Indie Company and Batavia (1619-1799) In Robert Ross and Gerard J. Telkamp (eds.) *Colonial Cities: Essays on urbanism in a colonial context*. Dordrecht, Netherlands: Nijhoff Publishers.
- Boedhisantoso, S. (1967) Jagakarsa: A fruit-producing village near Jakarta, in Koentjaraningrat (ed.) *Villages in Indonesian*. Ithaca: Cornell University Press.
- Bohn, K. and A. Viljoen. (2005). More space with less space: An urban design strategy. In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Cairns, S., & Friedrich, E. (2014). Kampung City: Fragile obduracy, or the urban 'ship of Theseus paradox'. [n.d.].
- Coffey, R. (2013). The difference between “land use” and “land cover”. MSU Extension. Retrieved from https://www.canr.msu.edu/news/the_difference_between_land_use_and_land_cover
- Cope, M. (2005) Coding Qualitative Data. *Qualitative Research Methods in Human Geography* 2, 223-233.
- Crang, M. (2005). Analysing Qualitative Materials, In R. Flowerder and D. Martin (eds.) *Methods in Human Geography* (second edition). Essex: Pearson Education Limited.
- Devas, N. (1981). Indonesia’ s Kampung Improvement Program: an evaluative case study. *Ekistics*, 48(286), 19–36.
- Dick, H. W., & Rimmer, P. J. (1998). Beyond the Third World City: The New Urban Geography of South-east Asia. *Urban Studies*, 35(12), 2303–2321. <https://doi.org/10.1080/0042098983890>
- Dinas Museum dan Sejarah DKI Jakarta. (1993). Kampung Tua di Jakarta [The Old Kampung in Jakarta]. Jakarta: DKI Jakarta.

- DKI Jakarta Provincial Government. (2014). *DKI Jakarta Regional Regulation No.1 of 2014 on Detail Spatial Planning and Zoning Regulation*. Jakarta: DKI Jakarta Provincial Government.
- Ebing, E. and Y. de Jager (2000). *Batavia - Jakarta, 1600-2000: a bibliography*. Leiden: KITLV Press.
- Evers, H. D. (1981). The contribution of urban subsistence production to incomes in Jakarta. *Bulletin of Indonesian Economic Studies*, 17(2), 89–96.
<https://doi.org/10.1080/00074918112331334009>
- Ford, L. R. (1993). A Model of Indonesian City Structure. Source: *Geographical Review*, 83(4), 374–396. Retrieved from <http://www.jstor.org/stable/215821>
- Funo, S., Yamamoto, N., & Silas, J. (2002). Typology of Kampung Houses and Their Transformation Process. *Journal of Asian Architecture and Building Engineering*, 1(2), 193–200. https://doi.org/10.3130/jaabe.1.2_193
- Giradet, H. (2005) Urban agriculture and sustainable urban development. In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Haris, T. (2007). *Kota dan Masyarakat Jakarta Dari Kota Tradisional ke Kota Kolonial (Abad XVI – XVII)* [City and Society of Jakarta from a Traditional City to a Colonial City]. Jakarta: Wedatama Widya Sastra.
- Hay, Iain. 2010. *Qualitative Research in Human Geography* (3rd Edition). Toronto: Oxford University Press.
- Heukeun, A. S. J. (2001) *Sumber-sumber asli sejarah Jakarta (sampai dengan tahun 1630) Jilid III* [The original sources of Jakarta history (up to 1630) Volume III]. Jakarta: Yayasan Cipta Loka Caraka.
- Heukeun, Adolf S.J. (2000) *Sumber-sumber asli sejarah Jakarta (sampai dengan tahun 1630) Jilid II*. [The original sources of Jakarta history (up to 1630) Volume II]. Jakarta: Yayasan Cipta Loka Caraka.
- History. (n.d.) In Oxford Dictionary. Retrieved from <https://en.oxforddictionaries.com/definition/history>
- Hockett, H.C. (1955). *The Critical Method in Historical Research and Writing*. London: Macmillan.
- Hong, T.T. (2007). *Keadaan Jakarta Tempo Doeloe: Sebuah kenangan 1882-1959* [The condition of Jakarta in the past] (second edition). Depok: Masup Jakarta.
- Hudalah, D., & Firman, T. (2012). Beyond property: Industrial estates and post-suburban transformation in Jakarta Metropolitan Region. *Cities* 29, 40-48.
<https://doi.org/10.1016/j.cities.2011.07.003>

- Iles, J. (2005) The social role of community farms and gardens in the city. In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Jellinek, L. (1985). Underview : Memories of Kebun Kacang, 1930s to 1980s In Susan Abeyasekere (ed.) *From Batavia to Jakarta : Indonesia's capital 1930s to 1980s*. Clayton, Vic.: Monash University
- Kanumoyoso, Bondan. (2011). *Beyond the City Wall* (Ph.D. dissertation). Universiteit Leiden, Leiden, Netherlands.
- Karro, K., Mägi, M., & Palang, H. (2014). Studying past landscapes: Lived, reconstructed and animated. *Living Reviews in Landscape Research*, 8(1), 1–18.
<https://doi.org/10.12942/lrlr-2014-1>
- Kementerian Penerangan Republik Indonesia. (n.d.). *Republik Indonesia: Kotapradja Djakarta Raya* [Republic of Indonesia: The city administration of Greater Jakarta]. -
 —.
- KITLV. (2014). Batavia-Jakarta, 1600-2000: A bibliography (product description). Retrieved from <https://www.kitlv.nl/product/batavia-jakarta-1600-2000-a-bibliography/>
- Krausse, G. H. (1975). *The Kampung of Jakarta, Indonesia: a study of spatial patterns in urban poverty* (Ph.D. dissertation, University of Pittsburgh). London: University Microfilm International.
- Korff, R. (1996). Global and Local Spheres: The Diversity of Southeast Asian Urbanism. *Journal of Social Issues in Southeast Asia*, 11(2), pp. 288-313.
- Kusno, A. (2010). The End of the Peasantry and the Politics of Peri-urbanization in an Indonesian Metropolis. *Asian Research Institute Working Paper Series*, (139).
- Kusno, A. (2015). Power and time turning: The capital, the state and the kampung in Jakarta. *International Journal of Urban Sciences*, 19(1), 53–63.
<https://doi.org/10.1080/12265934.2014.992938>
- Leaf, M. (1993) Land Rights for Residential Development in Jakarta, Indonesia: the Colonial Roots of Contemporary Urban Dualism. *International Journal of Urban and Regional Research* 17(4), 477-491.
- Leaf, M. (1996). Building the road for the BMW: Culture, vision, and the extended metropolitan region of Jakarta. *Environment and Planning A*, 28(9), 1617–1635.
<https://doi.org/10.1068/a281617>
- Lennartsson, M. (2005) Recycling systems at the urban scale. In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Lohanda, M. (2007). *Sejarah Para Pembesar Mengatur Batavia* [The history of the Dignitaries managing Batavia]. Depok: Masup Jakarta.

- Marcucci D.J. (2000). Landscape history as a planning tool. *Landscape and Urban Planning*, 49(January), 67–81. [https://doi.org/10.1016/S0169-2046\(00\)00054-2](https://doi.org/10.1016/S0169-2046(00)00054-2)
- McGee, T.G., 1991. The emergence of desakota regions in Asia: Expanding a hypothesis. In: Ginsburg, N., Koppel, B., Terry McGee, G. (eds.) *The Extended Metropolis: Settlement Transition in Asia*. University of Hawaii Press, Honolulu, pp. 3–26.
- Ministry of Public Works Republik Indonesia. (2009). *Ministry of Public Works Regulation No. 17/PRT/M/2019 on Guideline of Urban Spatial Planning*. Jakarta: Ministry of Public Works Republik Indonesia.
- Niemeijer, H. E. (2012). *Batavia: Masyarakat Kolonial Abad XVII* [The colonial society in the 17th century] (Tjandra Mualim, trans.). Depok: Masup Jakarta.
- Paxton, A. (2005) Food Miles. In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Peresthu, A. (2015). Jakarta's "Exurbia" Kampongs. *Perspektivas Urbanas*, 1, 49–58.
- Perpustakaan Nasional Republik Indonesia. (n.d.) *Online Public Access Catalog*. Retrieved from <https://opac.perpusnas.go.id/>
- Prabowo, D. (2018, July 28th). Penyelesaian Kampung Kumuh Belum Sentuh Persoalan Dasar [The solution on slums still do not touch the basic problem]. Kompas.com, Property, News. Retrieved from <https://properti.kompas.com/read/2018/07/28/150845221/penyelesaian-kampung-kumuh-belum-sentuh-persoalan-dasar>
- Pribadi, D. O., & Pauleit, S. (2015). The dynamics of peri-urban agriculture during rapid urbanization of Jabodetabek Metropolitan Area. *Land Use Policy*, 48, 13–24. <https://doi.org/10.1016/j.landusepol.2015.05.009>
- Pribadi, D. O., & Pauleit, S. (2016). Peri-urban agriculture in Jabodetabek Metropolitan Area and its relationship with the urban socioeconomic system. *Land Use Policy*, 55, 265–274. <https://doi.org/10.1016/j.landusepol.2016.04.008>
- Provinsi DKI Jakarta. (2017). *Desain Besar Pertanian Perkotaan Provinsi DKI Jakarta Tahun 2018-2030* [The Jakarta Province Urban Agriculture Grand Design 2018-2030]. Jakarta: DKI Jakarta.
- Reerink, G. (2016). From Autonomous Village to 'Informal Slum' In Freek Colombijn and Jooste Cote (eds.) *Cars, Conduits, and Kampongs*. Leiden: BRILL.
- Reid, A. (1980). The Structure of Cities in Southeast Asia, Fifteenth to Seventeenth Centuries in Southeast. *Journal of Southeast Asian Studies*, 11(2), 235–250.
- Russel, D. (1999). Oral History Methodology, The Art of Interviewing. *Oral History Workshop*, (805), 893–8215. Retrieved from http://iohanet.com/resources/documents/Sean_Field_sephisoralhistoryinstructionpaper.pdf

- Rustiadi, E., Pribadi, D. O., Pravitasari, A. E., & Indraprahasta, G. S. (2015). Jabodetabek Megacity: from city development toward urban complex management system In R.B. Singh (ed.) *Urban Development Challenges, Risks and Resilience in Asian Mega Cities*, 421–445. Japan: Springer. <https://doi.org/10.1007/978-4-431-55043-3>
- Saldana, J. (2016). *The Coding Manual for Qualitative Researchers*. SAGE Publication, Ltd.
- Shahab, A. (2002). *Betawi: Queen of the East*. Jakarta: Penerbit Republika.
- Shahab, A. (2009). *Batavia Kota Banjir* [Batavia the city of flood]. Jakarta: Penerbit Republika.
- Sihombing, A. (2004). The Transformation of Kampungkota: Symbiosys between Kampung and Kota, a Case Study from Jakarta. *Department of Architecture, University of Indonesia, Jakarta*.
- Silver, C. (2007). *Planning the Megacity: Jakarta in the Twentieth Century* (Taylor & F). Oxfordshire: Routledge.
- Sioen, G. B., Sekiyama, M., Terada, T., & Yokohari, M. (2017). Post-disaster food and nutrition from urban agriculture: A self-Sufficiency analysis of Nerima ward, Tokyo. *International Journal of Environmental Research and Public Health*, 14(7), 1–20. <https://doi.org/10.3390/ijerph14070748>
- Stahlschmidt, P., S. Swaffield, J. Primdahl, V. Nellemann. (2017). *Landscape Analysis: Investigating the Potentials of Space and Place*. GB: Routledge.
- Sui, D. Z., & Zeng, H. (2001). Modeling the dynamics of landscape structure in Asia's emerging desakota regions: A case study in Shenzhen. *Landscape and Urban Planning*. [https://doi.org/10.1016/S0169-2046\(00\)00136-5](https://doi.org/10.1016/S0169-2046(00)00136-5).
- Supriatna, A., & Van Der Molen, P. (2014). Land readjustment for upgrading Indonesian kampung: A proposal. *South East Asia Research*, 22(3), 379–397. <https://doi.org/10.5367/sear.2014.0218>.
- Surjomihardjo, A. (1977). *Perkembangan Kota Jakarta* [The development of Jakarta city] (second edition). Jakarta: Dinas Museum dan Sejarah Pemerintah DKI Jakarta.
- Thomas, J. M. (2004). Neighborhood Planning: Uses of Oral History. *Journal of Planning History*, 3(1), 50–70. <https://doi.org/10.1177/1538513203262047>.
- Thompson, P. (1988). *The Voice of the Past* (second edition). Oxford: Oxford University Press.
- United Nation. (2015). Transforming Our World: The 2030 Agenda for Sustainable Development A/RES/70/1. Available from <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>.
- United Nation – Economic and Social Council. (2018). Progress toward the Sustainable Development Goals – Report of the Secretary-General. Available from

- <https://unstats.un.org/sdgs/files/report/2018/secretary-general-sdg-report-2018--EN.pdf>.
- Van Der Heiden, C. N. (1990). Town planning in the Dutch Indies. *Planning Perspectives*. <https://doi.org/10.1080/02665439008725695>
- Van Lottum, J & D. Marks. (2012). The determinants of internal migration in a developing country: quantitative evidence for Indonesia, 1930–2000. *Applied Economics*, 44:34, 4485-4494, DOI: 10.1080/00036846.2011.591735
- Viljoen, A., K. Bohn, J. Howe. (2005) More food with less space: Why bother? In A. Viljoen (ed.) *Continuous Productive Urban Landscape: Designing urban agriculture for sustainable cities*. Oxford: Architectural Press, Elsevier.
- Violent clashes during East Jakarta slum eviction. (2015, August 1st). The Straits Times, Asia, Southeast Asia. Retrieved from <https://www.straitstimes.com/asia/se-asia/violent-clashes-during-east-jakarta-slum-eviction>
- Widjaja, P. (2013). *Kampung Kota Bandung* [Urban kampung in Bandung]. Yogyakarta: GRAHA ILMU.
- Yokohari, M. (2017). “The Value of Grey.” [Lecture 3.8.: Sustainability Science – A Key Concept for Future Design]. MOOC offered by the University of Tokyo. Retrieved on January 8, 2019 from https://courses.edx.org/courses/course-v1:UTokyoX+UTokyo006x+1T2018/courseware/cd8a2b58740b44f194cab0414fd7924e/83a02f0bd8244ac3b9fd6b71fcd8a71d/9?activate_block_id=block-v1%3AUTokyoX%2BUTokyo006x%2B1T2018%2Btype%40vertical%2Bblock%4095575938b71f4093ba890d78f57298cb.
- Yokohari, M., Brown, R. D., & Takeuchi, K. (1994). A framework for the conservation of rural ecological landscapes in the urban fringe area in Japan. *Landscape and Urban Planning*, 29(2–3), 103–116. [https://doi.org/10.1016/0169-2046\(94\)90021-3](https://doi.org/10.1016/0169-2046(94)90021-3).
- Yokohari, M., Takeuchi, K., Watanabe, T., & Yokota, S. (2000). Beyond greenbelts and zoning: A new planning concept for the environment of asian mega-cities. *Landscape and Urban Planning*, 47, 783–796. https://doi.org/10.1007/978-0-387-73412-5_50
- Zarina, A. (2010). Path dependency and landscape biographies in Latgale, Latvia: a comparative analysis. *European Countryside*, 2(3). <https://doi.org/10.2478/v10091-010-0011-7>
- Zarina, A. (2013). Path dependence and landscape: Initial conditions, contingency and sequences of events in Latgale, Latvia. *Geografiska Annaler, Series B: Human Geography*, 95(4), 355–373. <https://doi.org/10.1111/geob.12030>

APPENDIX A.

Definition of Kampung in Literature

No	Year	Sources	Definition of kampung in literature
1	1918	Encyclopaedie van Nederlandsch-Indie, 1918, in Krausse, 1975	A native village whether as part of a city or as a separate entity
2	1969	S. Djauhari, 1969, in Krausse, 1975	For Djakarta the word kampung is used to distinguish two distinct areas of housing: one whose streets are not necessarily paved and are only about one to three meters wide with open drains on each side and whose houses are not necessarily made of brick, and the other has hard-surfaced streets carrying at least one-way traffic and where the houses are of durable quality
3	1975	Williams, 1975 p.341, in Paresthu, ...	Kampungs area is usually formed incrementally, not by mass invasion, and gradually fills in the gaps between other land uses. Initially, the structure is quite open, and the kampungs resembles those in the rural areas with fishponds and separate houses surrounded by banana and coconut trees. The density gradually builds up as the city expands, and it becomes profitable to subdivide and sell off the land. Urban kampungs evolved from a compressed rural village and becomes incorporated into the expanding city. It developed a clearer and more hierarchical structure.
4	1975	Atman, 1975	residential area with predominantly rural qualities and characteristics
5	1975	Krausse, 1975	The city kampung is loosely defined as a territorially bound community which represents, in part at least, an urban reinterpretation of rural life patterns.
6	1975	Krausse, 1975 in Pele, 2013	The City kampung is a residential segment of the cities that is characterized by substandard living space and is inhabitant almost exclusively by a cultural conservative segment of the population. The kampung-kota population may well fit the concept of transitional society, passing through a phase intermediate between rural and urban
7	1979	Friedman in Widyapura, 1979, from Pele, 2013	<i>Kampung-kota merupakan lingkungan tempat tinggal orang-orang yang susah menyesuaikan diri dengan rutin dari kota yang baru mereka masuki, mengelompok menjadi kampung kota dimana mereka hidup dengan rutin yang sifatnya antara kedua rutin tersebut di atas yang berbeda dari rutin yang mereka tinggalkan dan berbeda pula dari rutin sekeliling mereka di dunia baru itu</i>
8	1981	Nick Devas, 1981	Kampungs are the informal, unplanned and, until recently, unserved housing areas, which form a large part of most Indonesian cities

9	1983	Silas, 1983 in Reering, 2016	Low-income, urban or rural settlement (Silas, 1983: 214).
10	1983	Abeyesakere, 1983	(hal.70, for 19th century kampung), Their houses were almost always of wood, woven bamboo and thatch, surrounded by gardens which provided them with some food in the form of hand-raised poultry, fruit, and vegetables.
11	1983	Johan Silas, 1983 in Pele, 2013	<i>Kampung-kota sebagai suatu bentuk kemasyarakatan yang berada di tempat tertentu dengan susunan yang heterogen, tetapi tidak tersedia prasarana fisik dan sosial yang memadai dimana pengertian ini tidak sinonim dengan slum atau squatter, sebab kampung-kota memiliki hak historis</i>
12	1984	Herbasuki, 1984 in Pele, 2013	<i>Kampung-kota merupakan lingkungan perumahan tradisional yang spesifik Indonesia, ditandai oleh ciri kehidupan yang terjalin dalam ikatan kekeluargaan yang erat</i>
13	1985	Ever, 1985 in Pele, 2013	<i>Kampung-kota dapat diartikan suatu desa yang masih asli dan bersifat tradisional yang akan berkembang dan melebur menjadi bagian kota tetapi masih mempertahankan ciri-ciri desa</i>
14	1986	Herlianto, 1986 in Pele, 2013	<i>Kampung kota merupakan lingkungan yang menunjukkan daerah pedesaan yang masih mempunyai ciri-ciri tradisional yang kuat dengan penduduk yang homogen dan biasanya masih berorientasi agraris. Kampung-kota sebetulnya daerah di dalam kota pada mana terjadi transisi-transisi dari kehidupan desa ke kota, dari agraris ke spesialis, dari tradisional ke modern, dari hubungan gotong royong ke sifat birokrasi, dan hubungan pribadi berubah menjadi sifat-sifat yang memokok atau zakenlijk</i>
15	1987	Rutz, 1987 in Pele 2013	<i>Kampung-kota merupakan kawasan hunian masyarakatan berpendapatan rendah yang kondisi fisiknya kurang baik</i>
16	1991	Yudohusodo, 1991 in Pele, 2013	<i>Kampung-kota merupakan lingkungan suatu masyarakat yang sudah mapan, yang terdiri dari golongan berpenghasilan rendah dan menengah yang pada umumnya tidak memiliki prasarana, utilitas dan fasilitas sosial yang cukup, baik jumlahnya maupun kualitasnya</i>
17	1992	Silas, Johan, 1992	Incrementally developed settlement
18	1993	Ford, 1993	mostly unplanned primarily low-income residential area that has gradually been built and serviced.
19	1995	Murray, 1995 in Pele, 2013	<i>Kampung-kota merupakan tempat tinggal masyarakat kelas bawah, awalnya terbentuk melalui sistem segregasi etnis. Gaya hidup kampung-kota berkembang sejalan dengan integrasi yang kompleks dari kegiatan-kegiatan sektor ekonomi formal, informal dan sub-sistem. Masyarakat kampung-kota hanya memiliki sedikit atau tidak sama sekali kekuasaan dalam administrasi kota ini dan harus menyesuaikan gaya hidupnya agar dapat bertahan hidup.</i>
20	1996	Lee, Micheal, 1996	Informal housing in the cities

21	2002	Funo et al, 2002	urban village...in Indonesians means village or country.. It is one unique feature of Indonesia that urban settlements are also called kampungs. It is often said that human settlements in developing regions continue to preserve the characteristics of rural village, and such a concept applies to kampungs.
22	2004	(Sihombing, 2004), Antony, 2004	Kampung is an unstructured, unorganized and informal settlement in relation to the broader socio-economic system. It can also be realized as a settlement in an urban area without infrastructure, planning or urban economic networking. Poverty and poor of quality of life are the features of kampungs.
23	2007	C. Silver, 2007	A kampung was the urban version of the rural village (or desa), typically made up of a dense cluster of single (or sometimes two) storey residential structures packed together in a contiguous area, interlaced by a network of footpaths, and lacking any sanitary infrastructure
24	2008	Lo, Ria Hutabarat, 2008	Kampungs include both old formal village settlements which were indigenous to the area or had existed for several decades, as well as more recent informal squatter settlements constructed within the city
25	2014	Chairns & Friedrich, 2014	usually translated as 'urban village'captures the contradictions inherent in findings characteristics we associate with the village– close community bonds; stable patterns of culture; low-rise, vernacular buildings; intimate lanes and compounds; horticulture, aquaculture, and animal husbandry; and relatively modest economic means -- within modern urban setting.
26	2014	Supriatna, Andri & Paul van der Molen, 2014	Urban village' that are unregulated, densely populated settlements of poor-quality buildings with poor access to utility
27	...	John M. Echols & H. Shadily, in Krausse, 1975	1. Village, cluster of buildings making up a large home-stead or small hamlet and including the surrounding mixed garden. - 2. Quarter, area, administrative or otherwise, of a city in Indonesia
28	Lubis ..., in Krause, 1975	City quarter, peripheral or enclosed, where the poor working population live in bamboo dwellings
29	[Thomas] Karsten, ... in Krausse, 1975	Large compounds in the towns, which are with few exceptions still completely rural
30	Taylor, ... in Pele, 2013	<i>Kampung-kota adalah daerah perumahan yang umumnya berasal berasal dari daerah pedesaan yang tertelan oleh perkembangan kota yang sangat pesat sehingga menjelma menjadi perkukiman di dalam kota</i>

APPENDIX B.

List of Surveyed Historical Maps from National Archive of Republik Indonesia (ANRI)

No	Archive numbers	Title / Short description	Year	Map type	Scale	Location	Original source
1	41 - 1286	Batavia town plan	n.d.	n.d.	n.d.	n.d.	n.d.
2	125/Blad 3/11	Batavia, Mr.Cornelis (DKI Jakarta), Buitenzorg (Bogor), Krawang, Tangerang Jawa Barat - Peta Statistik -	1944	n.d.	1:150,000	n.d.	US Army, Washington
3	B.11	Kaart van Batavia (map of Batavia)	1625	Map	graphic scale	Batavia residency	
4	B.40	Een zeer interessant kaartje van de landen behoorend onder den post Tangerang (A very interesting map of the lands belong to the post Tanggeran)	nd	map	no	Tangerang-Batavia residency	nd
5	C. 46	Oude Kaart Van Jacatra (Old map of Jacatra)	nd	map	no	Old Batavia (mungkin Jakarta pra Batava)	nd
6	F.51	Blauwe afdruk van een calque-kaart van de stad Batavia en omstreken (Blue-print of a tracing-map of the city of Batavia and surroundings)	nd	map	1:20.000	Batavia	nd
7	K.26	Overzichtskaat van alle particuliere landen der Bataviasche ommelanden (Survey map of the all private lands in the suburb of Batavia)	1808-1811	map	graphic scale	Batavia regency	nd
8	L.35	Het westerkwartier der ommelanden van Batavia, van Buitenzorg en Tjiliwoeng tot zee en de Tjidoerian, met aanduiding van al de particuliere landerijen (The west quarters of the suburb of Batavia, from Buitenzorg and the Tjiliwung to the sea and the Tjidurian, with indication of all private lands)	1846	map	graphic scale	Batavia regency	nd

9	L.47	Schetskaart der landen tusschen den bendenloop der Tjitaroem en het zuiderwartier der ommelanden van Batavia (Sketch-map of land between the below-run of the Tjitarum river and the south quarter of the suburb of Batavia)	19th century	map	no	Batavia regency	nd
10	L.54	Kaart van de stad Batavia, de zuiden en ooster voorsteden, het Chineesche kamp en de groot rivier (Map of the city of Batavia, the south and east suburb, the Chinese camp and the Great River)	Dec 1823	map	graphic scale	Batavia	P.H. Bernhoff
11	M.16	Kaart der stad en voorstede van Batavia (Map of the city and suburb of Batavia)	1825	map	no	Batavia	S.F. Eerhardt
12	N.1	Situatieplan van Batavia, desselfs stranden en ommelanden (Situation-plan of Batavia, its coasts and environs)	1790	map	graphic scale	Batavia	C.F.Reimer
13	N.5	Geographische kaart van de stad en ommelanden van Batavia (Geographical map of the city and environs of Batavia)	nd	map	graphic scale	Batavia	nd
14	N.6	De particuliere landen van Buitenzorg tot Batavia, ongeveer tusschen de Tjiliwoeng oost, de Ankee en Tjipoetat west (Private lands from Buitenzorg to Batavia, about between the Tjiliwung river in the east, the Ankee river and the Tjiputat in the west)	nd	map	no	Batavia-Buitenzorg	nd

15	O.27	Kaart van den loop den groote landweg en de zogenaamde Kalie Baroe of de slokkan en de regts en links leggende landhuizen en kampongs van buitenzorg tot aan de stat Batavia (Map of the main public road and the so-called Kali Baru or the 'slokkan' and the country-houses and the 'kampongs' located at the right and left-hand side, from Buitenzorg to the city of Batavia	10 Oct 1812	map	graphic scale	Batavia residency-Buitenzorg	W.O. Burgemeester and J. Burger
----	------	--	-------------	-----	---------------	------------------------------	---------------------------------

List of Surveyed Historical Maps from Digital Collection of Universiteit Leiden, the Netherlands

No	Archive number/name	Scale	Type	Year	Short Description [by author]
1	03806-2	1:10000	city maps	1921	A detail enough map of Batavia which shown the land use which consist of Euroepan buildings, kampung, rice-field, various of dry field/garden, public facilities, and other natural landscape.
2	03815-A	1:20000	city maps	1919	A land use map similar to number 1, with key distinction: it drawn kampung in more detail manner. But, the agricultural land uses shown here were more simple (not as detail as) the number 1 map.
3	3816	1:20000	city maps	1914	A land use map similar to number 1 , and the kampung drawn in more detail than in number 2.
4	03811-A	1:20000	city maps	1910	A land use map similar to number 1, but the detail is not good.
5	03804-A	1:20000	city maps	1930	A land use map focused on the urban areas of Batavia. Avoiding the peri-urban area.
6	4804	1:20000	topographic maps	1904	A land use map similar to number 1, but with greater detail. The kampungs also were named in detail.

7	3791	1:20000	city maps	1625	A simple city map, but precious as one of the earliest map of Batavia.
8	4801	1:50000	topographic maps	1940	A land us map of Batavia, similar to number 6 but with better detail information.
9	05120-058-B	1:50000	topographic maps	1937	A land use map which focused on the peri-urban areas with information about plantation estates.
10	05268-056	1:50000	topographic maps	1945	A similar and newer version of number 9 map, with clearer color.
11	4800	1:50000	topographic maps	1934	A land use map focus on the peri-urban areas, with detail information regarding the kampungs and agriculture.
12	4802	1:50000	topographic maps	1925	A land use map similar to number 11, but different on the shown year and the information about kampung more detail.
13	4803	1:50000	topographic maps	1914	A very detail land use map which the most informative information about kampung land use.
14	04813-3	1:100000	topographic maps	1883	A land use map of overall--nowadays is--Jakarta Metropolitan Area (Jabodetabek).
15	04795-03	1:100000	topographic maps	1910	A land use map of overall--nowadays is--Jakarta Metropolitan Area (Jabodetabek), similar to number 14, but a newer version. The kampung and agriculture land use were clearer.
16	05121-03	1:150000	thematic maps	1933	A map of land ownership in the Batavia and its peri-urban.
17	05271-01	1:250000	topographic maps	1943	A map of road and train network in Batavia and its peri-urban.
18	No.78 - 05271-01; ジャワーマドラ圖	1:250.000	topographic maps	1943	A map of road and train network in Batavia and its peri-urban.
19	04767; ESTATES AREAS 1938	1:1.816.612	thematic maps	1948	A statistics map of plantation estates in Java island.

APPENDIX C.

Oral History Interview

Objective	: Oral history of kampung
Respondent	: Local elders
Respondent selection	: Snow balling method
Tools	: Tape recorder, notebook, camera
Interviewer	: By researcher [author]
Interview type	: Semi-structured

Basic demographic question:

- Name :
- Age :
- Born date and location :
- Gender :
- Hometown :
- Ethnic group :

1. Please explain the general condition of your kampung in the following periods,
 - a. General condition in pre-independence periods (Dutch & Japanese, prior to 1945s):

 - b. General condition in Soekarno period (1940s-1960s):

 - c. General condition in Soeharto period (1960s-1990s):

 - d. General condition in Reformasi period (1990-present):

2. Please describe what were the occupation* of your kampung population during following periods (*In-depth: types of occupation [subsistence farmers, cash crop farmers, plantation laborers, industrial workers, office and urban workers, property landlords], generational perspective, gender perspective),
 - a. Occupation in pre-independence period (prior to 1945s):

 - b. Occupation in Soekarno period (1940s-1960s):

- c. Occupation in Soeharto period (1960s-1990s):

- d. Occupation in Reformasi period (1990s-present):

- 3. Please describe how were the land uses configuration* in your kampung and surrounding area (kelurahan) during following periods (*in-depth: planned/real estate housing, industrial area, business/office area, wet land agriculture, plantation estate, crop field, orchard field),
 - a. Land uses in pre-independence period (prior to 1945s):

 - b. Land uses in Soekarno period (1940s-1960s):

 - c. Land uses in Soeharto period (1960s-1990s):

 - d. Land uses in Reformasi period (1990s-present):

- 4. Please describe what were the types of agriculture and agro-production pattern* existed in your kampung during following periods (* in-depth: monocrop/diversity; ownership systems, labor systems, production-distribution-consumption [tata niaga] systems),
 - a. Agriculture in pre-independence period (prior to 1945s):

 - b. Agriculture in Soekarno period (1940s-1960s):

 - c. Agriculture in Soeharto period (1960s-1990s):

 - d. Agriculture in Reformasi period (1990s-present):

5. Please describe how were the in-migrants and ex-migrants which come and go to/from your kampung* (*In-depth: how many, who were them (occupation, gender, age, education level, what were the reasons),
 - a. In-migrants and ex-migrants in pre-independence period (prior to 1945s):

 - b. In-migrants and ex-migrants in Soekarno period (1940s-1960s):

 - c. In-migrants and ex-migrants in Soeharto period (1960s-1990s):

 - d. In-migrants and ex-migrants in Reformasi period (1990spresent):

6. Please describe how were the government intervention* to your kampung during following periods (*In-depth: what kind, how effective, impacts),
 - a. Government intervention in pre-independence period (prior to 1945s):

 - b. Government intervention in Soekarno period (1940s-1960s):

 - c. Government intervention in Soeharto period (1960s-1990s):

 - d. Government intervention in Reformasi period (1990spresent):