

# **Land Conversion In Transitional China**

*A Case Study In Nanjing*

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## Preface

The motivation for the inquiry is to complete the Master of Science program in the Land Use Planning Group with the specialization Spatial Planning and in second, to fulfill my personal ambition in the fascination of China. As a Dutch student I benefit from a great deal of education about spatial planning and its practices in Western countries. However, because of my personal background coming from a Chinese family, though my family is from Hong Kong originally, I felt a lacking element in my education. Therefore a closer view considerably into China with unique features of spatial planning, challenges of immense urbanization and transition attitude toward an open economy, waited for me to be explored and to be discovered. I took this opportunity to enlighten and to broaden my academic perspectives.

The research period consisted of three academic semesters according the Wageningen University planning booklet, approximately six calendar months and started from 1<sup>st</sup> of March until 30<sup>th</sup> of August 2009. The first two months comprised general literature research within the theoretical framework. In the following two months in collaboration with my supervisor, Gerrit-Jan Carsjens, the location Nanjing was chosen. Simultaneously, contact was made with Nanjing Agricultural University for guidance in local settings and to deepen supportive information, included was a site visit of three weeks for gaining empirical information. The last two months consisted of writing findings down and finishing up thesis activities.

I owe many persons gratitude for supporting me in this report. First of all, many thanks go to my supervisor for his inspiring motivation, excellent guidance and suggestions for improvement have been most welcome. I would recommend him to other students for his assistance due to his expertise, friendly approach and open attitude for discussions. Furthermore, I am pleased to have enjoyed the educational voyage with such nice students of the Land Use Planning Group. Thank you for the delightful moments during my two years of Wageningen University.

I would also like to reveal my appreciation for the cooperation with Nanjing Agricultural University (NAU), particularly professors, PhD students and undergraduate students of the faculty Public Administration, and especially Wu Qun and Wu Wei for lifting my inquiry to a higher level. Thanks as well to participants who were willingly to answer my questions and to provide me many supportive information and advices. If there any mistakes or incorrect facts, they are my responsibility.

Last and by no means least, I am grateful for the encouragement of my lovely friends and dearest family. Without your support I would have never completed the academic journey successfully. Thank you all.

Pat Tang

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## Summary

Since China a transition process started to reform its politics and the economy in the early 1980's, the country's urban planning struggles with the increase of land conversion fueled by urbanization. Unfortunately, a large perspective of transitional China and urbanization for land conversion is lacking. The purpose of this study is to identify the driving factors and main problems of land conversion in China by exploring transition and urbanization processes. Land conversion in urban planning, the transformation of rural land to urban purposes physically and functionally, is disclosed by understanding transition and urbanization processes. While the case study Nanjing sheds light on the empirical experiences of land conversion. Confrontation between the large perspective and the empirical experiences reveals the main transition and urbanization factors for land conversion.

The transition factors are, the market-led economy and the political attitude separated into economic developmentalism, personal institutionalism and the percolation model. However, most dominant is the economic developmentalism. The transition factors set the spatial planning realm of China and allow land conversion through a division in land planning system and ambiguous land quota system with two ends under the socialist ideology. On the one hand the land use planning goal is to protect the food production and assigns land for this purpose via the land quota system. On the other hand, however subordinate to land use planning, urban planning aims to reach economic growth and land conversion is allocated and guided by the same land quota system. Due to the support of the political attitude of economic developmentalism land conversion is guided in urban planning in transitional China.

Urbanization processes reveal six variables of urbanization in China and ultimately result in rural land to convert for urban purposes. The six interrelated variables are; technological change, demographic movements, political devolution and institutional change, markets, globalization and urbanization itself. Nevertheless, two routes are the main urbanization factors for land conversion. The external route through the technological change with the globalization of markets and the internal route with the intertwinement of market and politics. Both routes demand land conversion nationally and locally, however in the Nanjing case the factor of demographic movement of rural population to urban areas deserves more attention for land conversion.

So, the large perspective discloses not lonely that economy is imperative for land conversion in China, but that politics influence land conversion in two ways. In the transition sense allows land conversion for the purpose of economic growth and in turn in the urbanization sense demands land conversion as well. Consequently, local demographic migration experiences show that this factor should not be neglected in the urbanization processes for land conversion. In the end the exploration reveals that land conversion deserves to acknowledge politics and demographic migration.

# 1 Introduction

Since China a transition process started to reform its politics and the economy in the early 1980's, the country's urban planning struggles with the increase of land conversion fueled by urbanization. Land conversion is a change whereby the function and physical land convert from rural to urban purposes. An incentive of land conversion is urbanization, also referred to as urban sprawl or urban expansion. The process of urbanization is influenced by internal and external factors that stimulate land conversion, for instance, Gugler (2004) argues that Chinese cities are influenced by globalization and the country's economic merits derived from external markets (Hornsby et al., 2008; He et al., 2006). Alternatively, competition between cities in China in the race for investments reveals to be an internal factor that stimulates land conversion (Zhang, 2006), not to mention the internal demographical issues where rural population migrates to urban areas and the challenge to feed the largest population in the world (Tan et al., 2008). Unfortunately only few studies manage to elaborate from a larger view and to encompass under snowed political and economical factors for inquiry, which motivate land conversion stimulated by urbanization (McGee, 2008; Heikkila, 2007).

An instrument to guide land conversion in China is urban planning. Ma (2006) provides an overview of literature and research topics in the field of urban China and many researches in urban planning result in statements for more democratic voices in the political domain and planning reform in order to enhance planners' profession, planners' ethic and decentralization (Yu, 2008; Leaf and Hou, 2006; Zhang, 2002; Tang, 2000). Political and planning reform in urban planning is contended, but what this includes remains to a certain degree an open question. The point to make is not to argue political and planning reform, but it is to explore a wider perspective where former and latter are played out, namely under a transitional China. In general the main deficiency with the transition theory in urban planning is that they are bounded by economical and capitalistic perspectives (Ng and Tang, 2004; Tang, 2004 Zhang, 2002), and only the opening of economy plays the main backdrop function as such (Buck and Walker, 2007, Dittmer, 2003). Nevertheless, consideration of transitional China entails not merely economical reasons, as argued by Buck and Walker (2007) and Dittmer (2003) in their studies and alongside the relation with land conversion has not been explored.

The bounded exploration in transitional China is unfortunate, while the lack of larger perspective of urbanization entailing factors of incentives, internally and externally, stimulating land conversions is regrettable. Therefore imperative is a broader knowledge base for more insights to understand land conversion.

## 1.1 Purpose of the study

The purpose of this study is to identify the driving factors and main problems of land conversion in China by exploring transition and urbanization processes. Land conversion is a tentative definition. A remark should be noted that this definition is not to be confused with the more concise definition and referred to throughout this report that is land conversion from rural to urban environments, physically and functionally.

## 1.2 Research framework

The theoretical research perspective is drawn from theories of transition processes and urbanization. These two provide the main ingredients in order to reach the purpose of the study. Land conversion is inquired under the concise research model, see figure 1 below. Firstly transitional China, urbanization, spatial planning in China with urban planning in particular, and the case study Nanjing are elaborated. Confrontation of transition and urbanization factors with land conversion comprises the second step. And finally driving factors of land conversion in Nanjing are identified.

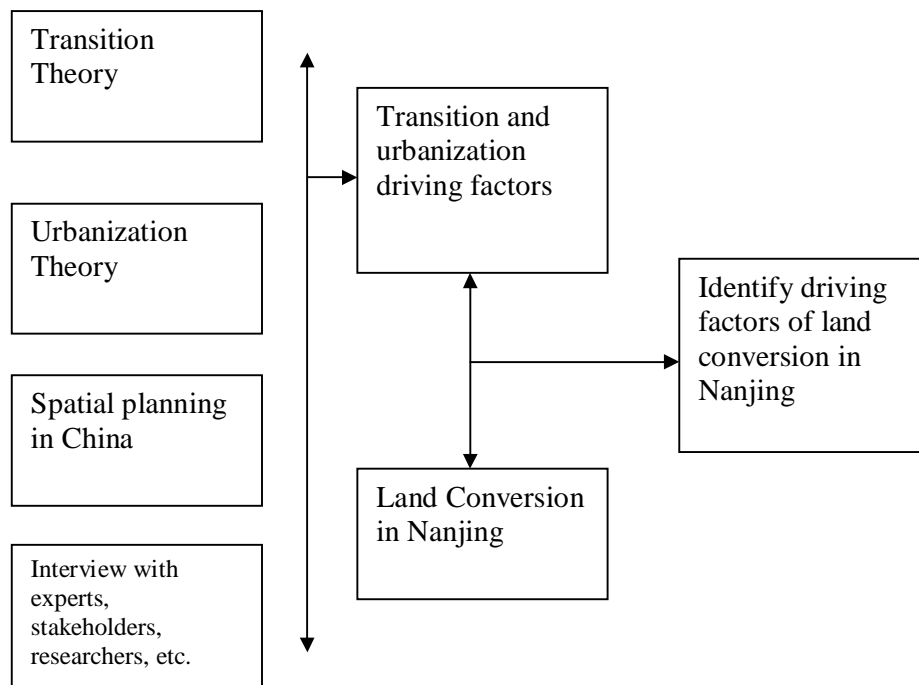


Figure 1: Research model



### **1.3 Research Questions**

The main research question is; how do transitional and urbanization factors contribute to identify factors of land conversion in China?

The following sub-research questions are applied to answer the main question;

- What are the main factors that influence rural-urban transition processes?
- What are the main factors that influence rural-urban urbanization processes?
- How did spatial planning evolve in China?
- How do the transition and urbanization factors contribute to land conversion in Nanjing?

### **1.4 Research methodology**

Through literature study transition and urbanization processes in China are inquired, which identifies factors of rural-urban processes. In addition, literature and researches in China's spatial planning, particularly urban planning concerning land conversion, are used to comprehend the realm, together with interviews of professionals.

And lastly, the case study of Nanjing elaborates on the identified transition and urbanization factors in a local setting. Citing Creswell and Stake, "*case studies, in which the researcher explores in depth a program and event, an activity, a process, or on or more individuals. The case(s) are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time*" (Creswell, 1995). In a timeframe of two decades beginning from 1989 to 2009 is Nanjing explored through literature and interviews on the municipal level, recommended by Nanjing Agricultural University (NAU, 2009), because all final decisions concerning land conversion are taken by the municipal government and all land conversion procedures are uniform nationally. The participants in the case study entail a range from professional expert to local actors that concerns the central phenomena of land conversion in the city of Nanjing, included are open-ended interviews with experts, scholars, civil servants, and local stakeholders.

### **1.5 Thesis Outline**

The outline of this thesis comprises the transitional behavior of China, including two pillars, economical and political features are described in chapter 2. In addition, the theoretical drivers of urbanization in China with urban expansion revealing urban growth and the demand for land conversion. China's distinctive spatial planning is explored under the light of history, urban planning profession and dual-land system in chapter 3. In chapter 4, the case study Nanjing elaborates on land conversion in depth with transitional country attitudes and urbanizations characteristics in the background and prior exposed spatial planning knowledge of China. And finally in Chapter 5, concluding remarks and suggestions for further researches end the exploration.

## 2 Rural-urban processes

This chapter focuses at rural-urban processes that concerns transition and urbanization factors in China for the purpose to understand urban planning dealing with land conversion. Many countries are in transition, but what does this actually mean? What constitutes as a transitional country? What are the characteristics of a transitional country, and, toward what kind of transition then? Furthermore, to be more concise, how do the transition factors contribute to rural-urban processes in China that demands land conversion? In order to better grasp characteristics of a transitional country and its influence on the field of urban planning, a broad view of transitional notion is provided, while China's economical and political reform attitudes reveal a closer illumination of transition factors.

Next to transition factors, the search for economic prosperity and welfare in China leads to a growth in urbanization with urbanization factors generating an increase for land conversion. For instance, on a national scale, geographically in China, the East coast has seen increased urban transformations stimulated by economic prosperity (Heikkila, 2007; Gaubatz, 1999). Some scholars measure urban population in China (Fan and Scot, 2003), while others examine urbanization from different institutional scales, varying from national to local structures or focus at the process of transformation in Chinese cities (Ding, 2003; Gaubatz, 1999). Urbanization factors disclose rural-urban processes of urbanization for urban planning with land conversion.

### 2.1 Transitional countries

Generally, transitional countries are defined as countries where the economies transform from centrally planned into marked led (IMF, 2009). Following the International Monetary Fund (IMF) perspective, there are four assumed characteristics in a transition process.

1. *“Liberalization is the process of allowing most prices to be determined in free markets and lowering trade barriers that had shut off contact with the price structure of the world's market economies”.*
2. *“Macroeconomic stabilization is primarily the process through which inflation is brought under control and lowered over time, after the initial burst of high inflation that follows from liberalization and the release of pent-up demand. This process requires discipline over the government budget and the growth of money and credit (that is, discipline in fiscal and monetary policy) and progress toward sustainable balance of payments”.*
3. *“Restructuring and privatization are the processes of creating a viable financial sector and reforming the enterprises in these economies to render them capable of producing goods that could be sold in free markets and of transferring their ownership into private hands”.*
4. *“Legal and institutional reforms are needed to redefine the role of the state in these economies, establish the rule of law, and introduce appropriate competition policies” (IMF, <http://www.imf.org>, accessed 20 May 2009).*

In other words, the characteristics of the whole process of transition concerns liberalization of free markets whereby structural inflation are put under government control to stabilize macro economy in a reliable financial sector for free trade and the legal and institutional reform will support with appropriate policies. These characteristics account for many countries as listed by the IMF, and some even completed the transition process and no longer constitute as a transitional country. For instance the Czech Republic joined the European Union in 2004, by successfully completing the transition process (IMF, 2009). However, has China completed the transition process or is it still in transition? Considering the amount of transitional notion in literature titles (Ng and Tang, 2004; Tang, 2004 Zhang, 2002), and the once closed economy changing to an open economy process guided by the government, indicate that China has not completed the transition process (Dittmer, 2009). Nevertheless, Buck and Walker (2007) doubt that and argue the transition has completed but only remaining a final step of political liberalization (2007). The question whether political liberalization is part of the transition process or not will not be discussed in this thesis, but important is to acknowledge that politics influence transition processes, because politics alter the standpoint transitional China by opening up the economy or not. Therefore not to include politics with explaining transition processes in China is a pitfall for researches.

## **2.2 Transitional China**

Economy and politics are the main drivers of the transition processes in China. The opening up of the economy and political changes are some events that made China to its current state. Each period of reform has its own characteristics and governmental policies and these experiences are used in this thesis to understand the transformations in the present transitional phase.

The starting point of the transition processes is the important Great Leap Forward, continuing in the Cultural Revolution from 1966 until 1976, where Mao Zedong lead China into a period of remarkable changes, eventually diminishing social disparities, increasing legislative order and suspending any economical trade of characteristics of capitalism as goals under one political party. After Mao's death, his successor, Deng Xiao Ping opened up the economy, though it was socialism running a market economy, thus at "*the 1982 Twelfth Congress, the Party line states "economic planning as the mainstay, the market as the supplement"*" (Dittmer, 2003, p.351). Accordingly, the political change started with the stimulus "Beijing Spring" in 1979, criticisms around government policies and ideologies were openly discussed without any legislative consequences (Dittmer, 2003). Deng Xiao Ping's formal ruling came to an end in 1989, when the socioeconomic disorder on the Tiananmen Square was no longer accepted by the government and it reached to an apex of clean sweeping actions of the square. After this, Deng Xiao Ping's advocated political and economical reform where carried on by Jiang Zemin whereby admittance to the World Trade Organization (WTO) enhanced trade with foreign countries significantly and also in time of the Asian Financial Crisis

alleviated governmental policy. From the 21st century onwards, Hu Jintao resumes reforming China with an emphasis on the fight against corruption and the development of economy is a major focus of government policy.

Two main pillars of transition in China are illuminated. Firstly the attitude toward economy plays an important part and secondly institutional changes are inherently political struggles.

### **2.2.1 Market-led economy**

The economy in China has always been dominated by governmental policies and the standpoint of open or closed economy has seen swings. Mao closed the doors of foreign trade, later, Deng opened up the economy in phases. The economic reform in China after the opening up of the economy is unique compared to other transitional countries, in a sense that the socialist ideology remains a dominant notion without an implosion of political ideology as seen in the East European countries. Governmental policies are aiming to improve and to stimulate the economy with the relaxation of investments from foreign countries as important stimulus for the economy on all levels and primary seen on the Eastern seaboard assigned by economic planning, concomitantly, prosperity and higher standards of living is reaching to levels as seen in Western countries.

The opening up of the economy from the 1980's up until present day, despite economic hurdles and political instabilities, still attracted foreign investors for capital, innovation and knowledge investments. From 1980 when foreign direct investments (FDI) took place and from the 1990 with \$ 3.49 billion foreign capital absorption have made inputs on the economy (China Statistics, 2009). In just five years it ten folded and rose to an amount of \$ 37.52 billion. In the next twelve years FDI lowered pace although nearly doubled the figure in to an account of \$ 74.77 billion in 2007 (China Statistics, 2009). Investments generally comprise governmental cooperation, leading to Special Economic Zones (SEZs) first seen in Guangdong Province and State Owned Enterprises (SOEs), merits for economy are evident. The first taste of a market-led economy where in these SEZ's, here, the main ideology of free trade gained more ground, later many other coastal based cities followed suit to service the global and local economy.

Other parts of the country outside the SEZs are transitioning toward a market-led economy as well, according to Lin (2001), "*A transitional socialist economy is characterized by, among many other things, the maintenance of a single Communist party system, a gradual rather than abrupt privatization of the economy, increased local autonomy, greater openness and a gradual transition of the national economy from plan to market*" (p.402). No doubt the communist party system is undisputed and sociological thinking is still one of the Chinese trademarks. Nevertheless, economic changes are occurring gradually, for instance SOEs are no longer only governmental institutions, more and more enterprises are being privatized. Local autonomy for municipalities and various local governmental institutions are gaining authority in supporting the economy (Buck and Walker, 2007). Economic planning with central allocation of

economic activities, as part of the broader definition land use planning also included is social planning, see next chapter, is put more to the background while marketization gains more followers nationally and locally.

Lin (2001), amongst others, in this sense follows the IMF notion of transitional country to a certain degree. Economical transition is important and the opening of the economy and privatization has lead to prosperous merits. Nonetheless, IMF refers legalization and institutional reform as part of the characteristics, but political reform has not been mentioned contrasted to Lin (2001) among many others, though only the transition of plan to market economy. Also prompt by Buck and Walker (2007) is thus the element of sociological thinking that remains in China, is there room for political reform at all? But what constitute as political reform in China, when scholars agree that one State Party dominates the political field and IMF only urges for institutional change? In the following more about this issue.

### **2.2.2 Chinese political reform**

China has seen many political transitions in the past, the famous Great Leap Forward (GLF) and Cultural Revolution (CR) standing above other Chinese contemporary changes. The second major pillar of transition is the political element in China. Even though reflection in history might reveal the way Chinese politics work, the point to make here is that, it is more important to look further and scrutinize political reform that is taking place at this moment and to look beyond for hints of destination. Dittmer (2003) introduces three distinct routes, economic developmentalism, institutionalized personalism and the percolation model, for explaining the Chinese political reform in the transitional phase from 1980's until present. Other political reform might occur as well for instance, protectionism can provide solutions to the recent financial crisis. Dittmer (2003) takes the transitional theory into account with the opening up of the economy and presents new political roads.

### **2.2.3 Economic Developmentalism**

The theory starts from the assumption that the economic growth preconditions political reform. Accordingly, as long as the economy continues to grow and to modernize, political reform will also take place (Dittmer, 2003, p.349). The developmental perspective "*is whatever elicits greater economic efficiency will automatically engender appropriate political reform*" (Dittmer, 2003, p.348).

Therefore, in Deng Xiaoping's era his core vision of political reform is in cohesion with economic transformations, "*the notion of a functional socioeconomic division of labor interlocking with a corresponding division of political power*" (Dittmer, 2003, p.350). A famous metaphor expresses this notion, "the market is the bird and command planning is the cage". On the fundament of functional socioeconomic division, a two-house legislature would be part of the apparatus, whereby National People's Congress (NPC) acts as the lower house and People's political Consultative Conference performs as the upper house. The goal is to enhance democratization within China's internal legislative organs. Although Deng

never managed to realize this, his vision has inspired politicians, for instance, Zhao endorsed in 1987 the vision of civil servant reform that the Party no longer has the single control over personnel matters. Two cadres, namely political and executive cadres, are suggested. Each subject to its own rules or “management by categories” (fenlei guanli) (Dittmer, 2003). The political cadres stay subject to the Leninist “nomenclature” or “elite” system and the executive cadres would be publicly recruited and promoted on a meritocratic or talent and ability basis by the State Council’s Ministry of Personnel (Dittmer, 2003, p.350).

After Deng, in the wake of Tiananmen the functional differentiation and decentralization was considered inefficient. Though decentralization gained more ground and even is stimulated in the last decade. Under Jiang Zemin three political reforms were to accelerate marketization and privatization. First, democratic decentralization curtailed in a sense that the emphasis shifted to functional coordination (yiyuanhua) or “cross leadership”. Jiang took positions of Party general secretary, chairman of the Military Affairs Council and chief of state achieving functional unity under a single leader, in other words one person wearing more hats at once (Dittmer, 2003, p. 356). Second, downsizing of the administrative structure was part of an attempt to regulate market economy from command planning, for example, the number of ministries was reduced from 45 to 41 (Dittmer, 2003, p. 354). And in third, the reform to elevate the meritocratic prerequisites for recruitment into the national bureaucratic elite. The emphasis on the focus of educational merit intertwined with functional coordination has become a uniform requirement. An example is the “Tsinghua gang”, where an elite group of alumni from the university Tsinghua having key positions in governmental institutions. However this is not too useful for formations of informal groups or factions (Dittmer, 2003, p.357).

Through this view political reform is bounded by economical growth in a sense that the incentive is the economic engine. Resulting in change of diverse cadres system, multiple leadership, scaling back of administrative structure, meritocratic recruitment and judgment in the national bureaucracy. Urban planning has also seen political reform by the economical merits for political purposes. As such, politicians and its administration on all levels are judged by the developments made and the merits gained, for instance by increase of real estate developments or infrastructure and prosperous economy.

#### **2.2.4 Institutionalized personalism**

The second theory draws on the assumption that political reform is driven by a process of institutionalization, so change takes place by “*a process involving institutionalization of informal processes until they become structures, eventually being endowed with constitutional sanctification*” (Dittmer, 2003, p. 358). In China informal politics has long played an important part, and particularly on the elite level where political actors have more freedom of movement and are less constraint of organizational structures. The contradiction within informal politics is caused by informal personalism derived from personal patronage and charismatic leadership on the one hand. On the other hand the Chinese Communist Party draws upon

institutionalization of authority, bureaucratic procedures entailing functional roles, fixed procedures and abstract rules (Dittmer, 2003, p. 358). Reformers compromise on this ambiguity of personalized institutionalism or institutional personalism. Two aspects of the Chinese politics, factionalism and leadership succession, illustrate on these informal politics.

Factionalism deals with formal and informal politics. Formal politics enhances the opportunities for patronage building and is less flexible compared to informal politics, where ends are not formally sanctioned and mainly survival-driven (Dittmer, 2003). In the Maoist era, interfactional relations split occurred, though ideologically common world views were shared the same. However, public discourse on the correlation between class and morality remained with two ways of contending policies via the “bourgeois reactionary line” and the “proletariat revolutionary line”. In result informal interfactional split fragmented the Party and the renewed winning coalition took over, for instance, the Mao vs. Lui split is replaced by a Mao vs. Lin, then a “Gang of Four” vs. Zhou Enlai- Deng Xiaoping split (Dittmer, 2003, p. 360).

In the Deng Xiaoping era formal and informal factionalism had widened due to his ambivalent view. Consensus of supporting the policy reform of opening up the market existed strongly and formal factionalism were organized around policy goals and bureaucratic interests. The struggle between rapid reform (e.g. price reform and privatization) and gradual reform (the market as the bird, the plan as the cage) divided the Party with supporters for both sides. However informally, Deng managed to “expand” the Politburo with the recognition of honorary retirements and positioning him and other allies of accesses to elite communication channels in order to intervene in decision making processes.

Jiang Zemin continued Deng’s legacy but he has made two major changes in respect. First, the widened factionalism gap of the formal and informal organization has been closed to a large extend. Unlike Deng, his pursue of more formal positions in Party and state diminished this gap. Second, factions are no longer distinctive policy oriented but rather factions compete exclusively around personnel issues, in other word, patronage (Dittmer, 2003, p. 361). So, factionalism in the case of political reform adapts to fit socioeconomic circumstances and is less independent from ideology.

Succession of the Chinese Communist leadership in China has brought many strives in the political realm (Dittmer, 2003). “*In the pre-Mao era, succession was pre-mortem and invariably involuntary*” (Dittmer, 2003, p. 362). The main difference during the Mao era was the charismatic personality of the incumbent, where his revolutionary achievements gained respect in the political realm. In the post-Mao era, the succession issue culminated in crisis for his plausible successors in power struggles, coup plots and constant pre-mortem intrigue. Later, Deng Xiaoping contended the succession arrangements with reforms. By using selection tactically to manipulate the loyalty of the rest of the leadership with the main focus rest in the “core” as himself (Dittmer, 2003, p.363). Furthermore he introduced two progressive innovations. First, “*all government positions were to be revised in a limit of two 5-years terms*” (Dittmer, 2003). And second,

*“conceived of succession general incumbents were orderly replaced in a face-saving fashion, for instance, the Central Advisory Council (CAC) though later eliminated, were set up to replace the older generation”* (Dittmer, 2003). Ultimately leading to all formal and informal power in 1989 up until his death in 1994. After Deng, Jiang Zemin managed the succession of his colleagues smoothly and successfully announced Hu Jintao’s election.

In this view institutionalization draws on informal processes for change, illustrated by the examples of factionalism and succession. For urban planning to acknowledge institutionalization in China is important, not only on higher cadres but also at the local level where decisions are made by ambiguity of personalized institutionalism or institutional personalism. The retiring incumbent retains dominant influence over the process until his dying gasp on the highest level due to succession (Dittmer, 2003, p.365). On local levels this remains to be seen, but the awareness of succession contributes to the urban planning realm at least on high levels.

### **2.2.5 Percolation model**

The third theory assumes that political reform is a bottom-up process and is appreciated by high cadres. In other words, decentralization is an approach of “small government, big society” (Dittmer, 2003, p.366). Hereby local initiatives are stimulated from the national level. For illustration a practice or structure is introduced from above, to inspire the “masses” to implant their own political interests into empty structure (Dittmer, 2003, p.366). A good example is the “village elections”, whereby sometimes there are more candidates than vacant positions. Percolation has occurred in the political realm, but a way still has to be found to uplift this approach to higher levels of governmental cadres. Mainly due to the fact that percolation reform needs top approval or at least some tacit support (Dittmer, 2003). It should be recognized that elections were never intended to give rise to locals to choose their own leadership, but rather for higher levels to monitor local governance and to improve the efficiency to implement central directives (Dittmer, 2003).

Dittmer (2003) presents with the percolation model a similar notion as decentralization or in other words decontrol of control (Tang, 2000). In urban planning decentralization has also found its way. The research done by Lau et al. (2007) reveals a weak planning framework with lacking enforcement in the city of Guangzhou. So percolation model not only encounters problems in the political realm, but decentralization also in urban planning needs enforcement and legislation for local cadres.

## **2.3 Transition factors**

Transition theory entails two main factors. First, the economic reform of opening up the economy allowed foreign capital to flow into the country. In turn, investments are made for developments, the Eastern coast with SEZs and SOEs as most prominent examples. The central economic planning drives urban planning with areas for land conversion to be assigned in the East coast. Therefore economic reform not merely provides economical



merits but also influences the allocation of economic developments. In play here is the economic planning as part of land use planning, and urban planning executes assignments from economic planning. A closer look into these diverse planning realms provides clearer distinctions and reflects on the contribution of economic reform to urban planning.

Second, Dittmer presents three theories of political transition in China. Although no overarching characteristics appear they present three distinct routes of political reform. Economic developmentalism put its fate in the economy with goals such as technological inspiration and skyscrapers. The expansion of the economical machine drives reformers' demands and politicians are judged by economical developments and achievements. Institutionalism of informal politics is less obvious than in the past. Factionalism and succession notions still have profound influence in the political decision making for the next generation. It is also here that urban planning needs to adapt to factional activities and succession processes closely. In the percolation model, reformers need the power to uplift initiatives to higher cadres in the political realm.

Dittmer (2003) describes the three theories in the light of rising economy. The developmentalist and the institutional view can be associated with the elite group of China; in contrast, the percolation model draws upon lower segments in the population. In economic prosperous times institutional reformers lean more toward developmental aspirations, but when economy lags behind and the population moral reaches an unsatisfied and unacceptable point, especially if the recent worldwide financial crisis strikes China, percolation model might gain more pace in the race for more power. And institutionalism can swing to support, ultimately leading to political reform in the percolation manner.

Transition processes have two distinct factors, the market-led economy and the political assumptions with economic developmentalism as most prominent in current transitional China. And herein Dittmer's transition theory comprises a deeper understanding of the political element.

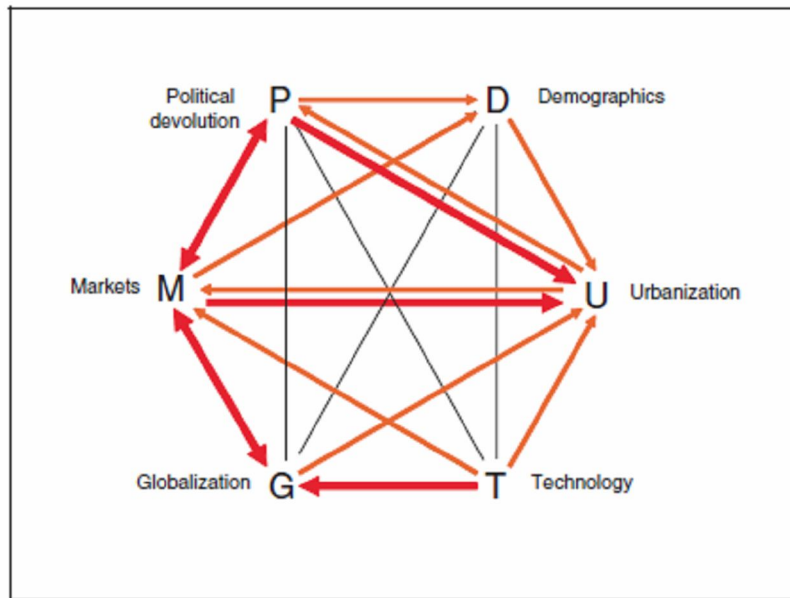
## **2.4 Urbanization processes**

This paragraph enlarges the rural-urban processes by including urbanization theory and to disclose the urbanization factors that drive land conversion. For the purpose of this research the main lead is urbanization in general. Though many urbanization theories exist, for instance space of flows by Castells (2005). But only Heikkila (2007) manages to reflect on all urbanization transformation factors in China and he offers a theoretical model by taken Chinese characteristics of urbanization into account with internal and external factors.

### **2.4.1 Interrelated transformations**

A way of looking at urbanization in China is to view it from a larger perspective, thereby including other massive transformation elements, which are changing China. This more complex explanation is presented by Heikkila (2007) in his extensive research of urbanization in China and it

provides insights to better understand urbanization processes and can disentangle diverse drivers stimulating urbanization. A Gordian knot with six variables in figure 2 is suggested. The six variables are technological change (T), demographic movements (D), political devolution and institutional change (P), markets (M), globalization (G) and urbanization (U) itself. The variables in the causal web are not independent but rather interrelated, and feed on each other while transforming each other, though, most likely dominant causal links are given in levels of strong, medium and weak (Heikkila, 2007).



**Figure 2: Interrelated transformations by Heikkila, 2007**

Heikkila presents two important causal chains, an exogenous and an endogenous line. The exogenous vein represents the forces of globalization and it can be elaborated by the link  $T \rightarrow (G \leftarrow \rightarrow M) \rightarrow U$ . The “*exogenous pathway, with technological change and globalized markets affecting urbanization in China*” (Heikkila, 2007, p.72). The endogenous element is dominated by the mutual relation of markets and political institutions. The linkage is  $(M \leftarrow \rightarrow P) \rightarrow U$ , whereby, “*the endogenous internal circuitry of mutually embedded markets and political institutions within the Chinese society. Both pathways are simultaneously active and interactive*” (Heikkila, 2007, p.72).

#### 2.4.2 Technological change

In the urban environment technological changes have occurred. In the past travelling was bounded by physical endeavors, such as on foot or by bicycle, nowadays motorways and high speed railways are the backbone of the infrastructure and part of everyday life in urban areas. Urban dwellers in Chinese cities live, work and recreate in urban environments with fast transportations at their disposal. The prominent causal link is technology changing globalization, with the improvement of transportation as such.

### 2.4.3 Demographic movements

Unlike the technology variable demographic movement is apparent, the massive rural-urban migration in China is stimulated by the transition to market economy and “*by the general easing of political controls over the issuing and enforcement of the Hukou residency permits*” or household registration system (Heikkila, 2007). Though the household registration system was effective in keeping the urban population at a very low level during the socialist era, the urban population in China has increased extensively. In the year 2000 the non-agricultural population was 296 million people, but by the year 2006 it accounted over 391 million residents (China Statistics, 2009). In figure 2 Heikkila argues, however, that demographic movement is only of medium importance and itself is the resultant of markets and political devolution forces. Similarly is the causal link between demographic movement and urbanization, whereby the former is more dominant than the latter. Remarkably is that demographic movement deserves higher valuation in many other urbanization researches (Fan and Scot, 2003; He et al., 2006). This could be the case because Heikkila includes markets and politics variables, while in other researchers these are less part of inquiry. Nonetheless, in the search for the main factors of urbanization processes Heikkila’s urbanization theory in China is preferred.

### 2.4.4 Political Devolution and Institutional Change

Political devolution means the transfer of political decision-making from the central government to provincial and other lower level government (Heikkila, 2007), in other words, the decentralization of decision-making or to a degree the percolation model in China as described by Dittmer (2003). It suggests that the economic market has a strong bidirectional casual link with political devolution and institutional change. For instance, the marketization of land use in local governments supports their own institutional goals. New financial resources gained by rent capitalization help local governments to invest in public services or physical infrastructure. “*The value of such services is then recaptured through capitalized land lease values, thereby promoting a virtuous cycle of institutional change and economic growth at a local level*” (Heikkila, 2007, p. 68). Dittmer (2003) provides more detailed distinctions of political reform, while Heikkila use mainly political devolution. Furthermore, the bidirectional link with urbanization lies in the role of the town and village enterprises (TVEs). “*The post socialist reform in China began with rural reform, and TVEs are an essential institutional response to channel surplus farm labor into productive activities*”, hence one form of the phenomenon urbanization with politics as a driver (Heikkila, 2007, p.69).

### 2.4.5 Markets

Markets are, arguably, the single most important causal factor of urbanization in China today. Firstly, the causal link between globalization and markets improved economic growth toward international oriented businesses. Secondly, as discussed above, the bidirectional link of market and political devolution and institutional change has a market principle of

demand and supply. Whereby allocation of land resources is politically arranged, like SEZs and SOEs, and the market principle plays a dominant concept. And finally, market influences urbanization on direct and indirect channels. Direct channel is via allocation of resources according to market principles, hence the demand and supply notion once more. The indirect path is the outcome of economic development, for instance, increased standards of living and rising wages changing the lifestyle of urban population (Heikkila, 2007).

#### **2.4.6 Globalization**

Due to globalization foreign direct investments has a significant role in the economic development and influencing urbanization ultimately. Following Castells' concept of spaces and flows (2005), the foreign direct investments have lead to the geographical expansion of the Eastern coastal border changing the market. China has attracted investors to invest in their country, most prominent economic developmental growth examples are Shenzhen, Beijing and Shanghai. So globalization and market have strong causal linkages. Moreover, globalization also has direct linkages with urbanization, though less strong, for instance, lifestyles are being changed, Western cultures are being adapted and "*all other urbanization modes that are not market orientated*" (Heikkila, 2007, p.71).

#### **2.4.7 Urbanization**

Heikkila has tried to explain urbanization processes in China with the scheme presented above, but, urbanization in itself also can be seen as a causal factor and changing other factors indeed. First, the causal linkage of urbanization to market is represented by the impacts of urbanization on market. The pushback here is that urbanization "*is promoted as part and parcel of market reform strategy*"(Heikkila, 2007, p.71). Another drive back is on the political institutions. On the urban-rural fringe area, "*local governments have strong fiscal incentives to expropriate rural land and convert it to urban uses*", disclosing the profitable business of land conversion (Heikkila, 2007, p.71).

### **2.5 Urbanization factors**

Heikkila's urbanization theory (2007) comprises two significant routes with six interrelated transformations factors of urbanization for land conversion in China. The six variables are technological change, demographic movements, political devolution and institutional change, markets, globalization and urbanization itself. Each with arguments that alters urbanization, although related in divers levels. Urbanization factors drive urban planning to convert land. However, imperative are the internal and external routes of urbanization for urban planning. The external route entails the technological change with the globalization of markets affecting urbanization, while the internal route reveals the intertwinement of market and political factors changing urbanization in China (Heikkila, 2007). These routes disclose most prominent urbanization processes with dominant factors that fuels land conversion in urban planning.

## **2.6 Conclusion**

Transition and urbanization theory will be used to comprehend urban planning dealing with land conversion in China. Dittmer's transition theory (2003) provides an umbrella for Heikkila's urbanization theory (2007). First, the transition factors in China are the market-led economy and the dominant political attitude of economic developmentalism, and provide the playing field. In turn, urbanization factors are the external route through the technological change with the globalization of markets and the internal route with the intertwinement of market and politics. The six variables of interrelated transformations of urbanization will not be neglected though, because each variable can influence each other and alter the routes. However, for this thesis the emphasis remains on these routes because they are the most influential urbanization factors in transitional China.

In addition, an integral view arises when the transitional factors complement the internal route of the urbanization theory. The internal route of Heikkila's urbanization theory (2007) lacks a deeper inquiry in politics, because the argument in use is decentralization mainly. Dittmer's transition theory (2003) complements this deficiency by offering three political assumptions, with economic developmentalism as the main lead.

So, the transition factors will be used to understand urban planning where in the urbanization factors elaborate on the incentives of land conversion in transitional China. The integral view discloses the main urbanization factors for land conversion and simultaneously offers additional political assumptions in the internal route. Both approaches will be used in order to comprehend urban planning dealing with land conversion in China and empirical experiences in the case study Nanjing.

### 3 Spatial planning in China

This chapter discloses spatial planning in China and unravels the influence of the transition and urbanization factors in the urban planning realm for land conversion. Contemporary spatial planning in China has, relatively, a short history compared to other Western countries. The Netherlands, for instance, has over a century experience in spatial planning, but China has just over half a century experience in this field. Though in this short history, influential shifts made China's spatial planning as it is today. Spatial planning in China comprises land use planning and urban planning. China's urban planning was part and mainly still is, subordinate to land use planning with economical and social planning. Major political and economical events altered the view of spatial planning in the society. From Mao's domination it was part of cities production perspective, while in those days cities in the Western countries were consumers oriented. The post-Mao reform era with economic upheaval changed spatial planning's character to a mostly economic driven developmental field with cost reduction notions. In the following section an historical overview will be given of spatial planning in general. Also politically and economically, changes have pushed the planning profession to adapt to divers circumstances. The division between land use planning and urban planning in China has not made the planning realm easier. Consequently, the Chinese land system concerning land conversion with a distinct concept of land is elaborated with transition and urbanization factors.

#### 3.1 *Historical overview of spatial planning*

In contrast to contemporary spatial planning, China has planning traces back as early as three thousand years ago when in the Zhou Dynasty city planning practice took hold for the first time. The concept of the modern urban planning as known in the Western nations, land use planning, civil engineering, city beautification as such, was introduced to China in the middle of the nineteenth century. Back then, nonetheless not really influential, Chinese planners who earned overseas education pioneered and founded modern urban planning in China (Leaf & Hou, 2006, p.562; Zhang, 2002, p.67). Despite this sporadic renewal, the field of planning has changed tremendously, so much that planners often talk of the "golden age" or the "third spring" of urban planning in China, referring to the perceived three periods of urban planning expansion over the course of the history of the People's Republic (Leaf & Hou, 2006, p.555). Contemporary urban planning can be divided into three main phases, "*the "first spring" refers to the period of cooperation with the Soviet Union in the 1950s, when the first academic planning programs were established and what were termed "industrial master plans" (gongye zongtu) for 156 major projects were developed with Soviet assistance in anticipation of the postwar wave of urbanization and industrialization*" (Leaf & Hou, 2006, p.560) The 156 projects are also verified by Tang (2000, p.349-350). The second spring can be assigned to the post-Mao era and the opening of China after 1978, when urban spatial planning associated with "bourgeois intellectualism" in a sense resurrected from the discipline's frozen winter due to the Cultural Revolution (Leaf & Hou, 2006, p.560). The "third spring" can be "*dated from the late 1990s, following the Asian financial crisis, when significant*

*foreign direct investment was redirected to China from elsewhere in the region, resulting in a renewed boom of urban and industrial expansion*” (Leaf & Hou, 2006, p.560).

Zhang (2002) scrutinized contemporary urban planning and illuminates the “three springs” in a more concise picture chronologically by elaborating crucial changes in the role of urban planning in six stages, see appendix 1.

1. From 1949 to 1951 China was in a state of rebuilding the country, planning activities mainly consisted of reconstructing urban utilities and sanitation systems.
2. In 1952 to 1957, due to industrialization, large-scale planning objects for industrial developments took place by means of Soviet Union technical and financial support. In the same period the Ministry of Construction Engineering and the National City Planning Bureau (NCPB) were established, the former in charge of urban development and the latter to design comprehensive plans for economic and social developments. Urban planning for physical development and plans for economic planning were separated, like Leaf and Hou (2006) have put it, “*the function of urban spatial planning, to the extent that it may seem to have existed at all, was merely to “materialize” the economic plan*” (Leaf & Hou, 2006, p.557). The Great Leap Forward movement was to ensure production projects and to allocate resources. Most famous is the “*Hukou*” or household registration system, in order to underpin policies of population mobility control and at a personal level to determine the trajectories and fortunes of individual citizens (Leaf & Hou, 2006, p.556). Another outcome of Mao’s producer city is the “*Danwei*” or urban work unit, primarily an institutional structure for organizing urban production (Leaf & Hou, 2006, p.556). Under this centralized planned economy, urban planners followed decisions made by the party-state through Five-Year plans and focused only on the implementation part of these plans, in other words, executing the physical planning (Zhang, 2002, p.69). The participation of decision-making and involvement of social-economic development was limited for urban planners, therefore, also, planning education derives primarily from universities or institutions with backgrounds in architecture, engineering and geography. The emphasis on physical planning in the education and in the professional domain can still be found today (Leaf & Hou, 2006, p. 573; Tang, 2000; Zhang, 2002, p.69).
3. A change in thinking occurred about planning during the years of depression from 1959 to 1962.
4. The ten years of Cultural Revolution period from 1966 to 1976 were significant. In this era planning profession and planners were viewed as useless or even harmful to proletarian politics by the party-state (Zhang, 2002, p.69). To paraphrase Mao, “*Intellectuals have little knowledge; laboring people are much wiser*”. Planners were seen as “revisionists”, who have the ability to threaten and to

oppose the Communist Party. In result, planning activities were low and planners were reeducated, and planning programs needed to merge with other disciplines (Zhang, 2002, p.69-70).

5. In the aftermath of the Cultural Revolution, Deng Xiaoping started the reform in 1978, with main goals to enhance China's economic development and to strengthen economic base of China (Zhang, 2002, p.70). Since the start from 1978 to 1991 reform policies can be assigned to mainly rural areas, while from 1992 until present comprise urban reforms generally.
6. During the rural reform at first, urban planning was to be restored to a condition before the dramatic change of the discipline in the Cultural Revolution. However, "*due to the coexistence of the planned and market economies, principles of socialist planning and the centralized decision-making structure remained unchanged*" (Zhang, 2002, p.70). And second, policies reflected government's concerns for a balanced economy and spatial environment still, so the equity-over-efficiency characteristic was the main socialist notion. Beside, another main event occurred as well, namely, the issuance of the 1988 Constitution. It "*allowed diverse types of ownership in China and separated land ownership from land use rights, which laid the foundation for housing privatization and the rebirth of a property and land market*" (Zhang, 2002, p.70). A legal basis was set up for urban planning through the City Planning Ordinances in 1984 and the City Planning Act in 1989 (Tang, 2000, p. 347). The urban reform was characterized by decentralization of revenue and land use control power significantly reinforced local decision power and stimulated urban growth (Zhang, 2002, p.70). Economic growth brought urbanization, about 150 million people have migrated from rural to urban areas in the past twenty years (China Statistics, 2009). One of the good examples of city planning is the city Shenzhen in South of China near the Hong Kong border. The population rose from several thousands in 1980 to four million inhabitants in 1999 with \$ 15 billion gross domestic product (GDP) (about 130 billion Yuan) (Zhang, 2002, p.71). The challenges dealing with GDP and growing urbanization were planned simultaneously. A problem with increased economical development and urbanization is the pressure of producing plans in such a speed, where quantity has the upper hand in order to satisfy government officials or investors and quality is put to the background more easily. Hence a learning-doing attitude and the political economic developmentalism attitude of the transitional factor (Dittmer, 2003). This attitude challenges equity in the socialist ideology, the equality notion advocated by the party-state, with the gap between nation's East and West part, the urban and rural contradictions and the rich and poor disparity as such.

Currently, the profession of Chinese urban planners has two national organizations, one is the Urban Planning Society of China (Zhongguo chenshi guihua xuehui) with an academic emphasis and the second is the Association of City Planning of China (Zhongguo chenshi guihua xiehui)



with a professional character. “Both planning organization has their chapters in provinces and cities, but their memberships are often shared at the local level” (Zhang, 2002, p.65). Urban planners work generally concise two main planning jobs, “management work” is managing urban land and controlling development quantity and quality through land use controls and building permits in city planning bureaus. “Design work” is to produce master plans and urban design documents in urban planning and design institutes (Tang, 2000; Zhang, 2002, p.65). Finally, the function of city or urban planning is changing from resource allocation to place promotion due to the transition toward a more market-oriented development mechanism under economic reform (Wu & Zhang, 2008, p.149). Whereby entrepreneurial urban governance, fierce inter-city competition and a greater need for regional coordination are part of the urban planning nowadays (Wu & Zhang, 2008, p.149).

### **3.2 Contemporary spatial planning**

The structure of Chinese government comprises five levels; the central state, provincial level, municipality, prefecture (district) and township (town). “Higher-level governments have absolute administrative power over the lower levels” (Tan et al., 2009, p.8). Spatial planning in China is divided into two brands, see table 1. Famous in socialist countries are the economic and social development planning, together called land use planning in this study. Also in the Western countries known as urban planning. Economic and social development planning in the Chinese planning commissions (jihua weiyanhui) have a mission to generate comprehensive social-economic development plans (the Five-Year Plan) under the responsibility of National Development and Reform Commission (Zhang, 2002, p.65). While urban planning (chenshi guihua) in China is limited to physical development planning such as physical land use planning, transportation planning, and urban design, within the Ministry of Housing and Urban-Rural Development with construction bureaus or construction commissions (jianshe weiyanhui) at various levels (Leaf & Hou, 2006, p. 564; Zhang, 2002, p.65). Further complication is the separation within the two brands, the rural land protection and urban land regulation. Rural land protection is the responsibility of the Ministry of Land and Resources including land use planning, while urban land protection comes under the Ministry of Housing and Urban-Rural Development which also complicates the profession of planners (Wu & Zhang, 2008, p.154).

**The two planning systems in China.**

	<i>Economic Development</i>	<i>Urban Development</i>
Function	Economic development planning (economic and social development)	Urban planning (physical development)
National institution	National Planning Commission	Ministry of Construction Department of City Planning in the ministry
Provincial institution	Planning Commission in provinces and in Beijing, Shanghai, Tianjin, and Chongqing	Department of Construction or Construction Commission in provinces City Planning Division in the department/ commission
Municipality institution	Planning commission in cities	Bureau of City Planning in cities or Office of City Planning in Bureau of Construction in small towns
Urban district		Bureau/Office of City Planning in urban districts in cities

**Table 1: Two planning systems in China by Zhang, 2002**

### 3.2.1 Land use planning and urban planning

Different levels of government should make Land Use General Plans (LUGP, *tudi liyong zongti guihua*). A quota system within the LUGP's is the main tool for governments in constraining fast growing farmland conversion, this means that the national LUGP regulates the total quota of farmland conversion of the whole country during a period, normally lasting for 15 years and revised according to changes in the economic and social environments (Tan et al., 2009, p.8). The lower-level LUGP's have to conform the higher levels, and especially regarding quotas for new construction land, preservation of arable land, and the dynamic balance of cultivated land (Tan et al., 2009, p.8; Beckman et al., 2008). A provincial LUGP has to be approved by the central state. "*Municipalities prepare two different types of plan, a land-use plan for the protection of rural land, and an urban master plan for the regulation of urban development*" (Wu & Zhang, 2008, p.154). The municipal land use plan is to be submitted to the appropriate provincial government for check and then submitted to the state council for approval (Tan et al., 2009, p.8). The master plan or urban land development plan remains within the municipal responsibility. Usually the municipalities announce the new designed urban plan for interested parties to apply for land use rights and to submit a land use application. Then the local government will check the applications according to the LUGP. All applications conforming to all prerequisites will be incorporated into the preparatory plan, after submitting to higher levels for approval (Tan et al., 2009, p.9).

Besides the economic and social planning, urban planning in China consists of four major components, see figure 3. The urban system planning, generally only on the provincial level, with a main characteristic to integrate the development strategy for urban and rural areas (Nanjing Agricultural University, 2009). The aim is to set guidelines for ecological environments, land and water resources, energy, natural, historic and cultural heritage, and the rules and measures for open spatial management as such (Nanjing Agricultural University). Another purpose is to foresee the city population and urbanization level and to plan the population, function distribution, spatial layout and construction regulation for every town and district (Nanjing Agricultural University). Master planning, concomitantly with regular planning and detailed planning, are the most influential strategies for municipalities, a closer look in the next chapter with the case study of Nanjing will reveal more. Eventually these strategies on all levels should be implemented and enforced from top to bottom.

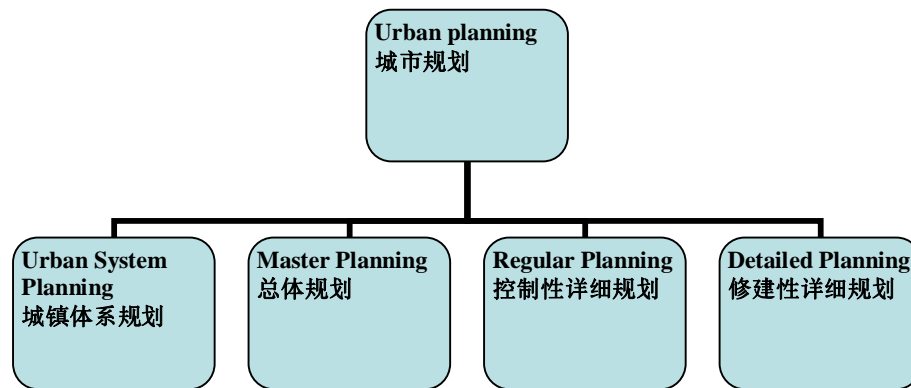


Figure 3: Urban planning structure, Nanjing Agricultural University, 2009

### 3.2.2 Land system

Land use rights were separated from land ownership as a mean of production under Mao's state socialism, the shift of interpretation of land without abandoning the socialist principle of public ownership in order to attract foreign investors due to economic opening since the 1980's. A distinct dual-track land system in land management and practice in the new political economy is the result. Land development and land management need more explaining because discrepancy of state's intention and the actual outcome is apparent. The Chinese state has an inconsistent nature in its articulation with land developments processes and particularly on the issue of land control. On the one hand it is powerful in making rules to control land development, but on the other hand state rules are powerless because they are not enforced effectively (Ho & Lin, 2005, p. 412). Not only is land control ambiguous, but more important, China's land development processes should be understood in the context of a dynamic and strategizing socialist state, characterized by internal structural diversity of power relations (Ho & Lin, 2005, p.412). Hence, a hint of Dittmer's (2003) political assumptions in the transition theory. Dittmer (2003) complements with three political assumptions to understand the internal power relations and the strategic institutional changes mentioned by Ho & Lin (2005) entailing political struggles in the land system of China.

Figure 4 elaborates on the view of Ho and Lin. A strategic-relational framework provides a better understanding of the state and land development in China. The first process sheds light on the shift in ideology of private ownership without leaving a Communist ideology of public ownership. During the Mao era land was a planned production material, rather than of commodity, and land was not allowed for market transaction and it was free of charge, hence the “plan track”. While under the post-Mao era the socialist land system was modified to allow foreign and private investors to acquire land use rights on market principles with conveyance fees, the “market track”. To uphold this dual-track land system strategic institutional changes occurred, for instance a nationwide moratorium on arable land conversion in 1997 and systematic revision of the Land Management Law in 1998 are to keep a variable mix of institutional forms and governance (Ho & Lin, 2005, p.412).

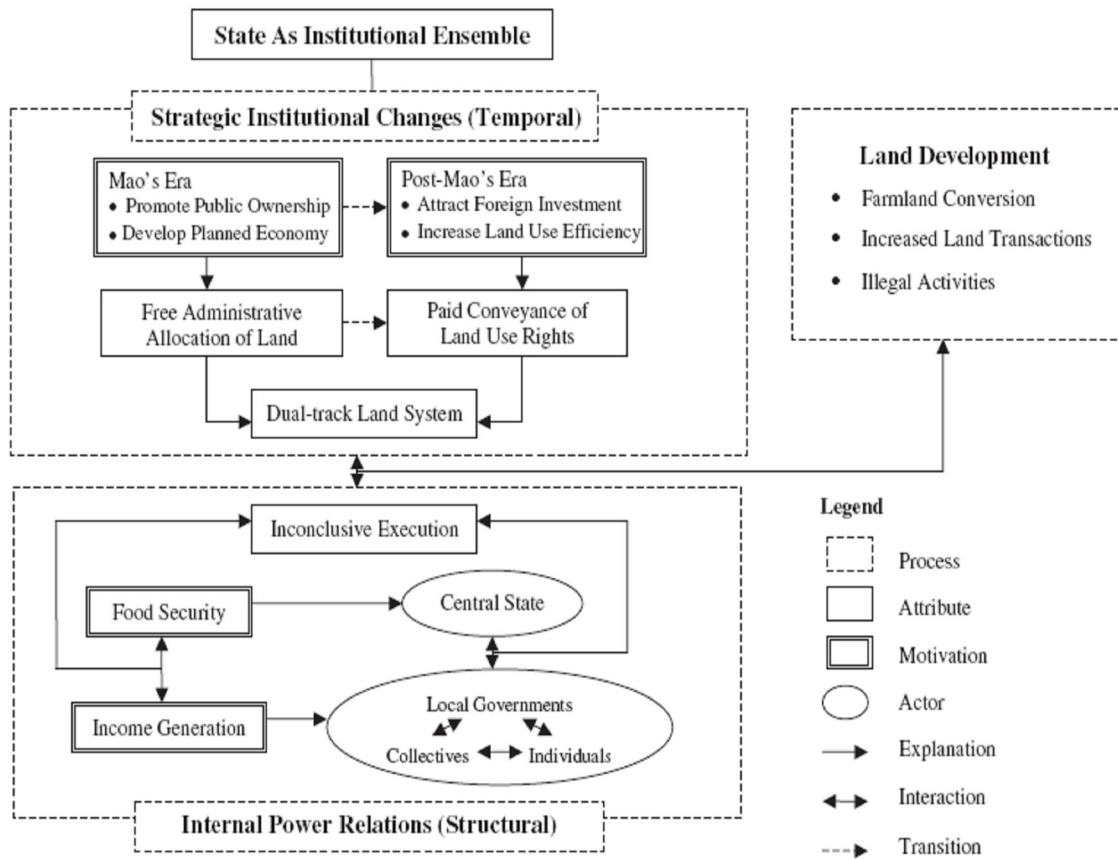


Figure 4: Institutional relation by Ho & Lin, 2005

Another process involves the informal power relations between various governments with constant contesting political ambitions. Since the contended decentralization the local governments are given more decisional power but also more room to circumvent and to manipulate central policies. The major incentive for the central state in this view, unlike other stimulus for land conversion was discussed earlier by Heikkila (2007), aims to protect food security. However, local governments are mainly driven by income generation to alter land. This leads to inconclusive execution (Ho & Lin, 2005) or inconsistent enforcement of strategies nationally and on all lower levels. *“The internal struggles reveal that China socialist state, instead of being an unified and coherent political entity, is better seen as a complex, conflictual, and internally heterogeneous institutional ensemble on which power relations are constantly mediated upward, downward, and sideways”* (Ho & Lin, 2005, p.413). Land development with farmland conversion, increased land transactions and illegal activities are bound by the internal power relations structural and the strategic institutional changes temporal (Ho & Lin, 2005, p.413).

A more concise scheme, see figure 5, explains the current land management system in China. As mentioned before, there is the distinction between state- and collective owned land. Land in urban areas is owned by the state and land in rural and suburban areas is collectively owned by rural residents (Ho & Lin, 2005, p.417; Tan et al., 2009, p8; Bureau of Land Resources Nanjing). Moreover, *“all land is classified according to its use into “agricultural”, “construction land” (land used for nonagricultural purposes), and “unused land” (land other than agricultural land and construction land)”* (Ho & Lin, 2005, p.417). *“The Land Administration Law of China (zhonghuarenmingongheguo tudi guanli fa) and its affiliated regulations as well as the new Property Rights Law form the legal basis for China’s farmland conversion”* (Tan et al., 2009, p.7). The conversion from agricultural land to construction land should be examined and approved by the State Council. The conversion from unused land should be reported to the provincial government or the State Council for examination and approval according to the size and number of sites (Bureau of Land Resources Nanjing, 2009).

### **3.2.3 Urban Land**

In the current land system land use rights in urban areas are divided in two ways: state allocation (huabo) and conveyance (churang), see figure 5 below. Allocation is used to dispense land use rights to state-owned or non-profit users (U1) without time constraints, such as governmental units, public schools, public hospitals. Conveyance is used to transfer land use rights to commercial users (U2) for a fixed period (forty years for commercial land, fifty years for industrial land, and seventy years for residential land) (Ho & Lin, 2005, p.420; Bureau of Land Resources Nanjing). Both allocation and conveyance constitute the primary market (yiji shichang) for land use rights (Tan et al., 2009, p.9; Bureau of Land Resources Nanjing). In order to improve a competitive environment for the primary land market the central government regulates land uses for industry (either secondary or tertiary sector) conveyed through a competitive market method, i.e. bidding, auction, bulletin and negotiation. Though negotiation

(xieyi) is not really an open competition, because land use rights are transferred between the local government and one other party. “*Bidding (zhaobiao) means that the government invites public bidding and decides on the land users according to the bidding result*” (Tan et al., 2009, p.9). An auction (paimai) is organized by the government to decide the land user publicly. Bulletin (guapai) means that the government announces that a plot of urban land will be available for sale or lease, and those interested in the land can offer a new, higher price within the bulletin period, which normally lasts 20 to 30 days (Tan et al., 2009, p.9; Bureau of Land Resources Nanjing). In the primary market, administrative allocation 25%, negotiation 54%, bidding 3%, auction 4% and bulletin 14% reveals the dominance of the government as the major player (Tan et al., 2009, p.10).

The second market for land use rights is the circulation of conveyance, holders of land use rights may transfer this right to others through rent or use rights as collateral. Most Chinese cities have formed a mature secondary land market (Tan et al., 2009 p.10). Land for state units can also be exchanged on the condition that the exchange is registered and that the parties involved pay the stipulated fees and the land appreciation tax (tudi zengzhi shui) ((Ho & Lin, 2005, p.420). One of the most profitable and fruitful approaches to increase local revenues for local governments is to reacquire land from state units and then selling the reacquired land to commercial users at a higher conveyance price (Ho & Lin, 2005, p.420; Bureau of Land Resources Nanjing). To illustrate the profits in primary market and the attractive prices being paid in the secondary market Tan et al. (2009) conducted a research with the following results, compensation for farmland acquisition was 28 Yuan/m<sup>2</sup>; the price of land from negotiation was 237 Yuan/m<sup>2</sup>; from auction it was 369 Yuan/m<sup>2</sup>; and for bulletin 577 Yuan/m<sup>2</sup>; however for the secondary market the price was 635 Yuan/m<sup>2</sup> (Tan et al., 2009, p.10).

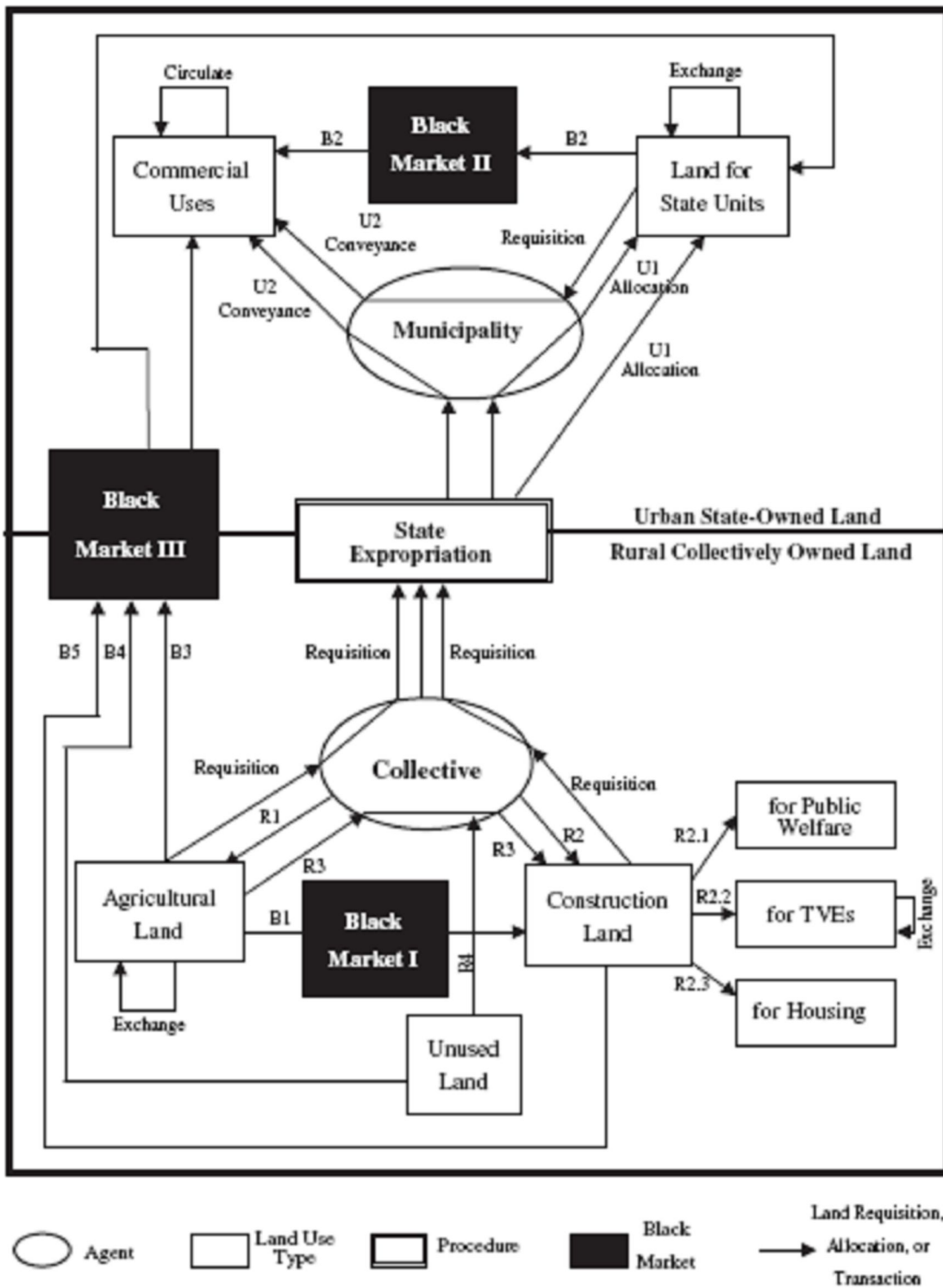


Figure 5: Land conversion system by Ho & Lin, 2005

### 3.2.4 Rural land

On the rural side, the central state strategy to protect food security is elaborated by the linkage collective ownership and agricultural land (Figure 5, R1). Agricultural land may be subcontracted or circulated in the secondary market within the rural collective sector for agricultural production. The authority to allocate rural construction land within rural sector (R2) for the use of public welfare (R2.1), township and village enterprises (TVEs)(R2.2) and housing sites for its members lies in the rural collective (Ho & Lin, 2005, p.421-422). The main concerns of the state are the conversion of land from agricultural to construction land (R3) and the expropriation of collectively owned rural land for urban or commercial developments, a crucial process to the entire land development (Ho & Lin, 2005, p.422; Bureau of Land Resources Nanjing). This is also the place where black market 1 occurs at length. Furthermore, Ho and Lin argue that the main reason for the pervasive and active black market is the attractive financial profits. Avoiding paying taxes and fees is the main driver on the black market 2, while in the black market 3 capturing profits from land conversion is the motive for the more serious illegal transfer of land use rights from the rural-collective to the urban commercial sector.

In order to give hold of undesired land conversion and to secure food production the state introduced new approval procedures for land development projects that required cultivated land. For instance, standards and limits for housing sites were set and township and villages should rationally use a land utilization plan. However, in the 1980s the main tool to regulate was *“a quota allocation system in which the amount of land allowed for conversion out of the agricultural stock was initially set by the central state and then distributed downward to provinces, prefectures, municipalities, counties, and townships”* (Ho & Lin, 2005, p.422). Despite the effort and the controlling legislation, manipulation and circumvention of quotas by various local administrative levels took place because of the strong revenue motive. The tactic of *“cutting the whole project into smaller pieces”* is used widely, to circumvent the set quota for large projects which demand farmland conversion. Another way to bypass the annual quota limit is to play with the land classification, land use planners and regulators could misclassify land and use it for construction purposes (Cartier, 2001 in Ho & Lin, 2005; Bureau of Land Resources Nanjing).

Consequently to make circumventions less attractive, the central state changed the quota allocation system and put the accent to a bottom-line or minimum amount of land that was considered absolutely necessary for agricultural production (Ho & Lin, 2005). Through a mechanism the minimum is maintained by replacing the occupied agricultural land with newly claimed farmland. After promulgation of new laws, the Land Management Law in 1998 specifies that each province have to designate at least 80 percent of its cultivated land as *“basic farmland”*, which must be preserved (Ho & Lin, 2005, p. 423; China 1998, Article 34). The number of conversion land is strictly controlled by the state’s farmland protection system and the amount of conversion land (commonly known as *“indicator sites”*) is set by the state every year. It should not exceed this amount



(Bureau of Land Resources Nanjing). In the farmland protection system, for instance, the state proposed that 18 million mu (approximately 1.2 million hectare or 12000 km<sup>2</sup>) of arable land cannot be reduced before the year 2020 (Bureau of Land Resources Nanjing). In essence, the central state replaced the old hierarchical approval system with a “no reduction” rule on the total amount of cultivated land.

### **3.3 Conclusion**

Transition and urbanization theories help to expose factors driving land conversion in the urban planning realm in China. Transition factors, the market-led economy and the political attitude, set the playing field for spatial planning resulting into a division between land use and urban planning, more specifically, into an ambiguous land system. The opening up of the market allows more land conversion to take place, however, without abandoning the socialist ideology of equality, resulting in a dual-track character of the land system. On the one hand the “market track” in the land system aims to increase economical growth and financial merits on all levels executed by urban planning, and the political attitude of economic developmentalism supports the “market track”. On the other hand, the “planned track” aims to protect food security deriving from the socialist ideology under the responsibility of land use planning.

The urbanization factors, with the internal and external route, reveal the incentives for land conversion in spatial planning. The external route introduced Western notions of urban planning to China, revealing a hint of technical innovation and globalization with foreign direct investment as an incentive for land conversion, for instance, market led development, high rise building and city beautification. The internal route elaborates on the intertwinement of market and politics, yet, another demand for land conversion, unlike the transition factors in the sense of setting the playing field. Here market demands land conversion for economical growth and politics stimulate the amount of land conversion under the control of the land quota system.

So, on the high scale the urbanization factors disclose incentives of land conversion and the transition factors are the drivers that set the field for land conversion with the distinctive land system. On the lower scale the case study Nanjing entails empirical experiences with urbanization and transition factors in play and sheds light for deeper understanding.

## 4 Case study Nanjing

This chapter aims to elaborate on urban planning dealing with land conversion and to reflect on the urbanization and transition factors in a local setting. Nanjing has an origin that goes back more than 2,500 years. Since the 3rd Century AD it has served as country capital for more than 450 years in 10 dynasties, hence the famous “Capital City for Ten Dynasties” expression (Nanjing Municipality, 2009). Nanjing is situated in the central part of China, surrounded by the Hong Mountain in the East, the Stone Mountain in the West and lakes, plains and the Yangtze River finish the landscape of Nanjing (Nanjing Municipality, 2009). Also currently, the hub characteristics of railway and highways interlinking Northern and Eastern parts of China reveal the central and geographical advantages of the city (Yao, 2004), see figure 6.

Nanjing, as the capital of the Jiangsu Province, administers 11 urban districts (the districts of Xuanwu, Baixia, Gulou, Jianye, Qinhuai, Xiaguan, Yuhuatai, Qixia, Jiangning, Luhe and Pukou) and two counties ( Lishui County and Gaochun County), with a total population of 6.17 million in 2007 (Nanjing Statistic Bureau, 2009). From this, 98,6 % derives from Han nationality, while minorities as Hui, Manchu and Zhang complete the population in Nanjing. The Jianye district has the largest number of minority people (Nanjing Urban Planning Bureau, 2009).



**Figure 6: Nanjing in china, Nanjing Urban Planning Bureau, 2009**

Urbanization has led to wide land conversions in Nanjing and mainly demands unused land to convert into agricultural land or construction land (SEARUSYN, 2005). Presently, following the figures of Nanjing Urban Planning Bureau (2009) the administrative area covers 6,597 km<sup>2</sup> of which the urban area is 4,730 square kilometers. The dominating amount of urban area can be assigned, first, by the expansion of urban core area partly. In 1978 the urban core rose from 76 km<sup>2</sup> to 93 km<sup>2</sup> in 1985 (He & Cui 2000 in Yao, 2005, p 94). In 2002 the built up area was measured 154 km<sup>2</sup> an increase of 61 km<sup>2</sup> (The Nanjing Land Reserve Center 2002 in Yao, 2005, p.94). And currently in 2009 the urban core area is around 256 km<sup>2</sup>, so in seven years the expansion increased with an amount of 102 km<sup>2</sup>, even

exceeding the urban boom in the mid nineties. Hence there is an occurrence in urban growth, urban sprawl have pushed urban boundary to expand. Consequently the urban fringe area gained built-up areas. Yao (2005) reveals in his research that in the Nanjing's urban fringe land development has risen steadily due to industrial development zones, such as Nanjing New and High technological and Industrial Development Zone and Yangtze River Port Economic Development Zone, whereby built-up area grew from 468,7 km<sup>2</sup> in 1992 to 574,5 km<sup>2</sup> in 2002, yet another increase of urban area of 105,8 km<sup>2</sup> (p.95). Another enquiry shows the lost of cultivated land for constructional use done by Seeking East Asian Rural Urban Synergy project (SEARUSYN). It discloses that from 1997 286,9 ha cultivated land was taken for constructional usages, but in 2002 this amount surpassed 2600 ha. Lastly, the loss of arable land in the urban fringe and rural core, where regulations on the conversion from agricultural land to rural nonagricultural use and the expropriation of collectively owned rural land for urban or commercial developments are more relaxed than urban core, was from 1986 to 1999 more than 62,63 km<sup>2</sup> (Yao, 2005, p.97). Altogether this have lead to a higher urbanization level with an increase in non-agricultural population with 56,8 % in 2000 to 68,4% in 2003 and 77,6 % in 2006 of the total population of 6,1 million and a greater claim for housing, road and public areas (Nanjing Statistics Bureau, 2009).

Urbanization with urban expansion is evident in Nanjing, however less obvious are the factors driving land conversion. Therefore, an understanding of land conversion in the municipality of Nanjing is illuminated by applying the perspectives of transition and urbanization factors. Semi-structured interviews with respectively two local actors, one civil servant, two scholars, three researchers and one practitioner comprise empirical experiences to comprehend transitional China and urbanization on a local level. It should be noted that the nine interviews were taken with the support of a translator.

#### **4.1 Spatial Planning in Nanjing**

Spatial Planning in Nanjing is, similar to national spatial planning, divided into two main parts. *“Economic and social planning are the responsibility of the Nanjing Municipal Development & Reform Commission within the framework of the Five-Year Plan”* (Interview notes practitioner of Nanjing Bureau of Land Resource Management, 2009). The Nanjing Urban Planning Bureau is the main department for setting up strategies for urban development. Here comes forth on the municipal level master planning, regular planning and detailed planning. However for this study the emphasis will be on urban systems planning, though, bear in mind that the two planning systems on all levels should be similarly coherent, and in a sense that urban planning usually follows the land use planning with its economic and social planning. Any contrast in definition and ends between the two main policies results in that *“urban planning should conform to land use planning”* (Interview notes with a PhD student specialized in land use and urban planning, NAU, 2009).

“The main planning instrument in urban planning in Nanjing is master planning” (Interview notes researcher, NAU, 2009). The Master Plan 1991-2010, which passed in 1995, is the main document for guiding urban development, for example, Nanjing’s development goals, development direction, overall spatial layout, etc., (Nanjing Urban Planning Bureau, 2009). Furthermore it consists of ten sub plans (Nanjing Urban Planning Bureau, 2008);

1. Administrative Region Plan,
2. Land Use Plan,
3. Road and Traffic Plan,
4. Environment Protection Plan,
5. Greenland System Plan,
6. Infrastructure Plan,
7. Public Utilities Plan,
8. Historical City Plan,
9. Recent Construction Plan,
10. Plan for Policies and Strategies.

Even more, “the Nanjing Urban Planning Bureau effectively controls and directs the construction in the city by organizing and producing the following: Main Urban Area Zoning Plans, Regulatory Plans, Transportation Plans, Historic Preservation Plans, Immediate Construction Plan, County Plans, “Five Lines” Plans, etc., under the framework set by the Master Plan” (Nanjing Urban Planning Bureau, 2009).

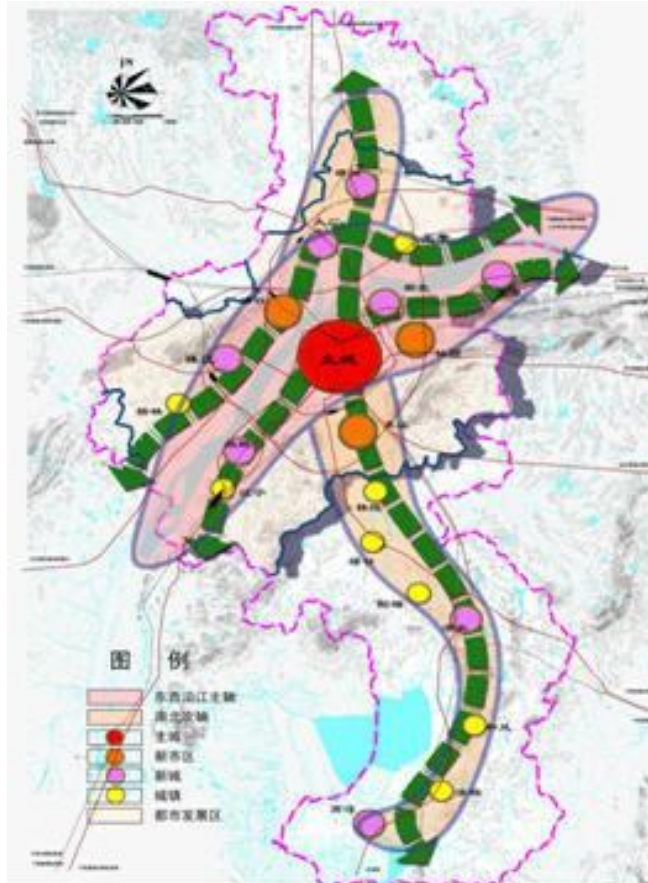


Figure 7: Master Plan (1991-2010), Nanjing Urban Planning Bureau, 2009

According to the Nanjing Master Plan, see figure 7, the Nanjing municipality can be divided into three levels (Yao, 2004, p.90; Nanjing Urban Planning Bureau, 2009);

1. The planning area or the municipal area;
2. The metropolitan area or the metropolitan development zone;
3. The core city zone or main urban area.

The planning area refers to the whole administrative area. Generally, the metropolitan area of Nanjing can be divided into urban core, rural fringe and rural core. According to Yao, see figure 8, “the urban core comprise of Xuanwu, Baixia, Jianye, Gulou, Qinhuai and Xiaguan. The rural fringe is Yu Huatai, Qixia, Pukou and the Dachang, Luhe County, Jiangpu county and the Jiangning County. The rural core consists of Lishui and Gaochun County” (Yao, 2004, p.90). Nonetheless for the purpose of this study and the Nanjing Master Plan, the metropolitan area is mapped out slightly different. Here it comprises the urban districts and parts of the Jiangning, Jiangpu and Luihe counties (urban fringe), covering an area around 2750 km<sup>2</sup>. Included are “12 satellite towns and 14 major towns for development, with Yangtze River as the axis, extending to the east and south, forming a space pattern of a modern metropolitan with multiple structures and distribution of different zones, with the downtown as the center” (Nanjing Foreign Investment, 2009). The core city is bounded by the city road(s) and the southern part of the Yangtze River, with an area around 256 km<sup>2</sup>. It mainly encompasses functions of banking, trading, science and technology, information, comprehensive management and service (Yao, 2004, p.90; Nanjing Foreign Investment, 2009; Nanjing Urban Planning Bureau, 2009; Interview notes scholar, NAU, 2009).

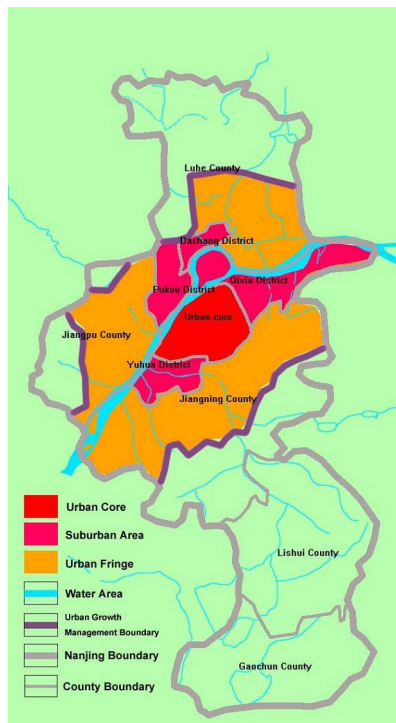


Figure 8: Schematic Land division by Yao, 2005

Furthermore, the master plan entails city growth with the concept “multi center” which should follow a development pattern of “one city and three new downtowns”, see figure 9. The traditional center of the city is located in the South of the Yangtze River and inside the ring road of the city with mainly tertiary industry, while the three new downtowns are Dongshan town of Jiangning district, Xianlin town of Qixia district and Jiangbei town of Luhe district, see figure 10 (SEARUSYN, 2005). In later period after 2010, the new master plan (2011-2030) is being produced at this moment, the multicenter concept should be upheld. Beyond the urban core, smaller towns are developed along important traffic lines, for instance the motorway toward Lukou International Airport in the South of Nanjing have seen developments nearby the passageway.

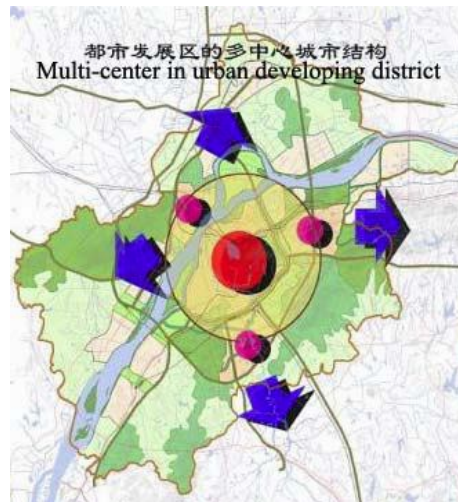


Figure 9: Multi-center in urban developing district, SEARUSYN, 2005

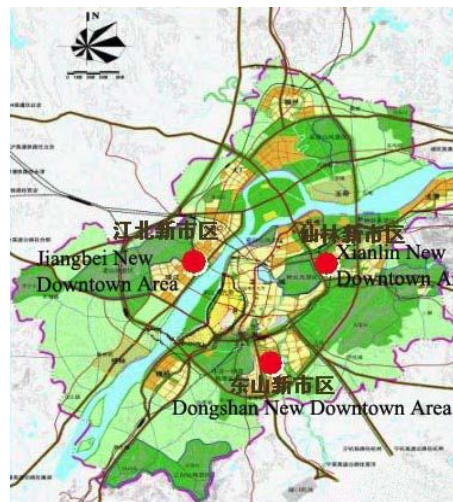


Figure 10: The Three New Towns, SEARUSYN, 2009



In regular planning the outline has a more detailed though general, and supportive accent. Strategies as the road red line, architecture height, floor area ratio, building density, green land rate and land use are some examples of the policies in a Nanjing's regular plan (Nanjing Urban Planning Bureau, 2008; Interview notes with scholar, NAU, 2009). For instance, the land use here only refers to its type of use, but in the master plan it means type of use and includes construction and distribution for all land in the area.

In addition, Nanjing Urban Planning Bureau draws on sub-regional planning and professional or special planning. Sub-regional planning, as being part of the Master Plan, focuses at regional areas, for example the Hexi New City Concept Plan is to develop a new city district with a goal of a modern and green environment and improving leisure, sports, culture and businesses. Professional or special planning expresses the specific topic to be enhanced or improved, Yuhuatai Economic and Technological Development Zone Planning (Nanjing Urban Planning Bureau, 2009).

A further complexity in spatial planning is the land use planning with an emphasis on rural land protection in Nanjing, under the responsibility of Nanjing Bureau of Land Resource Management and a main purpose to protect rural land for food production. "*Land use planning in general reflects the national government purposes*" (Interview notes with PhD student, NAU, 2009). It comprises eight special researches conducted by, universities, independent research centers, etc., most importantly not by local government<sup>1</sup>. "*This to avoid any interest conflicts and power play among actors, researches are assigned by the municipality of Nanjing though*" (Interview notes, NAU, 2009). These researches are:

1. The "*appraisal of current planning research*" is to illustrate the problems and challenges and to set outline for further scrutiny.
2. The "*cultivated land protection research*" set goals for arable farm land.
3. The "*intensive land use*" enquires the planning for construction land and land for infrastructure.
4. The "*ecological protection research*" reveals environmental issues and ecological preservation in Nanjing.
5. The "*spatial research*" accounts arrangements and managements of land according economical and social developments.
6. The "*urban and rural land use research*" is to examine relationships between the two counterparts and to coordinate it orderly.
7. The "*plan implementation research*" elaborates on the enforcement of land use planning strategies in Nanjing and also hand insights for further implementations.
8. The "*legislative research*" provides legal support for the proposed land use planning.

These researches altogether are tools to provide local decision makers of Nanjing clearer view or evidences in order to make more sound judgments, but "*the blurry pool of many researches altogether with various kinds of*

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<sup>1</sup> Following information comprise interview notes with a PhD student specialized in this area from Nanjing Agricultural University.

*plans, land use planning plans and urban planning plans as such, by way of divers responsibilities and ends makes lost of sight easily”* (Interview notes with PhD student, NAU, 2009).

## **4.2 Land conversion in Nanjing**

In land development two land conversion routes get the most attention from the national government (Ho & Lin, 2005). One is the transaction from agricultural land to rural non-agricultural use and the other is the expropriation of collectively owned rural land for urban or commercial developments. Ho and Lin (2005) give three arguments for the two land conversion routes:

1. After 1978 rural reform brought prosperity, simultaneously, the political control concerning residential construction relaxed, this have lead to a demand for better housing and resulted in increased diversion of farmland to residential use (Ho & Lin, 2005, p.422).
2. Due to the increased incentive of better housing and rapid development of rural nonagricultural activities, the state decided “*to allow individual peasants and rural collectives to undertake nonagricultural activities that were previously prohibited or tightly regulated*” (Ho & Lin, 2005, p.422).
3. In result of the open-door policy, urban reform and rural nonagricultural development gave rise to an urban expansion and the growth of small and medium cities (Ho & Lin, 2005, p.422).

These three developments lead to an almost uncontrolled conversion of rural agricultural land to construction land throughout the 1980s and early 1990’s, which culminated in the years 1984-1986 when China reported the loss of 2.1 million hectares of farmland (Ho & Lin, 2005, p.422). More recently, as for the Jiangsu province the years 2000, 2003, 2006, arable land declined from 50080 km<sup>2</sup> to 48600 km<sup>2</sup> and to 47440 km<sup>2</sup> (Jiangsu Statistics Bureau, 2009). Nanjing also saw similar national and provincial trend and arable land declined in the same years from 3020 km<sup>2</sup> to 2510 km<sup>2</sup> and finishing with 2440 km<sup>2</sup> in the year 2006 (Nanjing Statistics Bureau, 2009). The loss of cultivated land reached an alarming state whereby the concern for food security, threaten social stability and endangered environmental sustainability gained more ground in the political realm due to urbanization and alongside urban expansion.

Land conversion in Nanjing is guided by the land allocation system, the given quota from higher governments and the administrative system of urban planning. Beckmann et al. (2008) describe the complex farmland conversion procedure in a table, see appendix 2. For instance in 1999, the arable land balance system of Nanjing preserve high yielding farmland of an average of 0,8 mu<sup>2</sup> (0,053 hectares) per person, however with a projected population of 5,0 million in 2010 (Yao, 2005, p 106). This average has been scaled up since the total population reached over 6 million.

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<sup>2</sup> 1 mu = 666,67 m<sup>2</sup>



An example illustrates how the Nanjing Municipal Land Resources Bureau deals with the land quota system in practice. In a project an amount of land for development were to be divided among eight districts from the land balance. Two parties were active in the negotiations, on the one hand the Nanjing Agricultural University presented a future development view and provided expertise and independent advices with the support of Geographic Information System (GIS) defining various functions for land. While civil servants from the Nanjing Municipal Land Resources offered practical insight and decisional judgments. Eight districts were to divide an amount of land, but each district had a different weight and should be multiplied by a variable square kilometers of land negotiated during the meeting. *“Important is not to exceed the quota subtracted from provincial level”* and *“to bear in mind decision makers preferences”* says a civil servant from Nanjing Municipal Land Resources Bureau in an interview. In the end both parties reached consensus, though civil servants were more in favor getting their points through. Although this specific project and negotiations took place behind closed doors, this does not mean that further negotiation with public actors was neglected. Open public participation projects have set ground in Nanjing. The foremost example is the Master Plan 1991-2010 and according to Nanjing urban planning Bureau (2009), an open planning style entails a broad range of academic and social participants foreign and domestic allowing them to debate and to discuss. Other projects with public opinion taken into account are the plan for the fringe of Zhongshang Scenic Zone and the plan for protection of the Southern historical block of the city (Nanjing Urban Planning Bureau, 2007). The next step for the example project would be to begin with the application for alterations in the administrative system.

The administrative system for land use is divided into two guidelines. The main administrative guideline is the “One site selection note and Two Permits” policy (Nanjing Urban Planning Bureau, 2008). Here the “One note” refers to the permission note for location, hence the land use of a specific area. While the “Two permits” consists of a land use and building permit in order to approve land purposes. This policy provides legal basis of land usages. Urban land use is divided in four kinds of areas; the forbidden-built area; restricted-built area; the fit-built area and the built area. *“Each differing in their relaxation degree for construction or urban functions”* according to the Nanjing Urban Planning Bureau (2009).

#### **4.2.1 Land conversion challenges in Nanjing**

Various drivers have stimulated the urbanization process and required Nanjing policies to change and to adapt, for instance, the land balance system instrument deals with the ambiguous land system of “planned and market track” ambitions. There are six challenges to tackle, identified by a civil servant and a practitioner in the Bureau of Land Resource Management Nanjing.

1. *“To deal with the amount of index of land”*, because land function amount is assigned nationally, local governments are being creative in order to meet the economical demand (Interview notes with practitioner, Bureau of Land Resource Management Nanjing, 2009).

Indexes are circumvented cleverly to bypass illegal land conversion not alone on the local cadres but on all scales, as shown before in previous chapter.

2. The indexes are set in the political time frame of land use plans within a duration time of 15 years, therefore “*to tackle the lack of flexibility and to deal with apace transitions are important challenges*” (Interview notes civil servant, Bureau of Land Resource Management Nanjing, 2009).
3. The third challenge is how “*to enhance the administrative system for land conversion*” (Interview notes civil servant, Bureau of Land Resource Management Nanjing, 2009). Administratively, land use planning is dominant and cohesion between land use planning policy and urban planning master plan is from being in balance. A prove that urban planning gained more ground is the success, according to the Urban Planning Bureau of Nanjing, of the master plan 1991-2010 but this does not mean the equality to land use planning. Thought out notions of urban planning, and developed mostly, conforms the land use planning policy. Yet, the municipality of Nanjing managed to find creative solutions, driven by economical merits bounded by the designated amount of allowed land conversion, is understandable.
4. “*To control and to designate functions for land*” (Interview notes civil servant, Bureau of Land Resource Management Nanjing, 2009). Technically assigning land functions rest in planners’ professionalism, however, land can be assigned incorrectly or marked differently to reach economic or political goals as such. One solution for this has surfaced by the use of GIS.
5. “*To solve inexperience with new techniques or knowledge needs time*” (Interview notes practitioner, Bureau of Land Resource Management Nanjing, 2009).
6. On the one hand experiences with new knowledge or techniques, though mostly gained from Western countries, needs assistance and expertise for proper use. But on the other hand the deficiency in experiences in spatial planning, due to the short history and the changing environment result in a learn-by-doing approach, has opened up “*the window to cooperate and to welcome foreign expertise in the debate of land conversion*” (Interview notes practitioner, Bureau of Land Resource Management Nanjing, 2009).

### **4.3 Transition and urbanization factors in Nanjing**

On the high scale the transition factors are the drivers that set the field for urban planning mainly, and the urbanization factors unravel incentives of land conversion. On the lower scale the case study Nanjing, for instance, can use the transition and urbanization factors for better policy making for land conversion.

The drivers for local land conversion in Nanjing are viewed through the urbanization factors, the external and internal route of Heikkila (2007), though six factors are given and playing relevant roles as well, however, imperative is to explore the two routes in a local situation with empirical experiences. The external route is through technological changes and

globalization of market effect urbanization, for instance the amount of people having easier access to automobiles, highly developed infrastructure or communication network, stimulate the globalized market affecting urbanization for land conversion. An example of technological changes is the Nanjing underground system. The first metro line crossing the city in North and South direction is being used recently. The second metro line running in East and West direction is still under construction and accordingly to fully operate in the year 2010. The underground improved the infrastructure and increased and changed the land for diverse purposes, because land beneath enjoys shopping centers with the underground passing by while above ground underground stations have seen high rise developments and attracting more people to reside in the surrounding areas (NAU, 2009). Another example, *“the Lukou International Airport gives rise to an increase of connections and makes accesses from foreign and domestic origins to Nanjing faster”* (Interview notes with local inhabitant, 2009). A prerequisite to a globalized market.

In addition, to a degree increased foreign direct investment validates in Nanjing the globalization trend from 741 million US dollars in 1997, to 1.5 billion US dollars in 2002 resulting in more than 2 billion US dollars by the year 2007 (Nanjing Statistic Bureau, 2009). Demand of companies working in collaboration with Chinese companies is still increasing in Nanjing.

Furthermore, the two land conversion challenges *“to cooperate and to welcome foreign expertise in the debate of land conversion”* and *“to solve inexperience with new techniques or knowledge”* are urbanization factors with the globalization and technical innovation characteristic.

The internal route is the mutual and interactive relationship between market and political institutions motivating urbanization for land conversion. The economy in Nanjing demands land conversion for urban uses, for instance, In the year 2007 the growth domestic product (GDP) of Nanjing exceeded over 300 billion Yuan, approximately 30 billion Euros<sup>3</sup>, nearly doubled the figures compared to 2003 in four years (Nanjing Statistic Bureau, 2009). Herein companies and industries demand more land and result in the expansion of the economy. The political incentive that increase land conversion in Nanjing is elaborated by the political ambitions of decision makers. Political achievements are judged by economical growth in Nanjing, therefore planners carefully adapt to political preferences. For example, the land conversion challenge *“to deal with the amount of index of land”* although administratively set by higher cadres, is *“to bear in mind decision makers preferences”* that makes decisions over land conversion in Nanjing.

In turn, the political attitude in the sense of the transition processes, the two land conversion challenges, *“to tackle the lack of flexibility and to deal with apace transitions are important challenges”* and *“to enhance the administrative system for land conversion”* reveal the economic developmentalism of the transition factor. The land system arranges land conversion to occur, however, the national politics control the amount of land conversion in order to protect food production. While the lack of flexibility in land use planning plans constrain urban planning plans in a set

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<sup>3</sup> 1 Euro = 10 Yuan

time frame and policy to adapt to transitions flexibly. The master plan follows the Five-Year plans and a link to political factor can be made. Internal political change in urban planning can be witnessed by the inclusion of public opinions of plans in Nanjing, a hint of the percolation model of Dittmer's (2003).

The market-led economy allowed more opportunities for companies to expand their markets locally and internationally, hence the cooperation with foreign companies and potential foreign markets is one opportunity. Moreover, state-owned companies are reduced in order to enlarge private ownership and to enhance property rights of private investors (Nanjing Municipality, 2009; Interview notes civil servant, 2009). More flexibility to choose attractive locations for businesses and the increased protection of land use rights are some examples from the political institutions. These are too reflected by national notions of decentralization for instance, but the Nanjing Municipality still has to enforce the policy.

Next to the described transition and urbanization factors, the percolation model of the political factor of transition seems to gain ground in urban planning in Nanjing. Many urban plans have used public participation during the process deriving from Dittmer's (2003) percolation model. Moreover, the scaled up land quota discloses the demographic urbanization factor in Nanjing, which is less of importance in Heikkila's theory of urbanization. But local example in Nanjing proves otherwise, although in the sense of land conversion. Would this also be the case in other cities in China?

In sum, the case study Nanjing contributes to the understanding of land conversion by illuminating empirical experiences. Herein driving factors of land conversion challenges are separated into urbanization or transition factor, providing a clearer look of the incentives for land conversion. The urbanization factors result that not only the two roads are applicable for a nationwide perspective, but also that the local experiences merit to identify and to comprehend the urbanization forces affecting land conversion that seemed less permeable before.

The transition factors allows land conversion in Nanjing under the guidance of the ambiguous land system. The market-led economy provides land use and urban planning window to increase land conversion under the support of economic developmentalism and the percolation model of the transition factor also gained more ground in urban plans in Nanjing.

Thus better judgments for policy can be made by understanding the incentives for land conversion through transition and urbanization theory, at least in Nanjing.

#### **4.4 Conclusion**

The case study Nanjing reflects on the theory by regarding the transition and urbanization factors. The driving factors of transition and urbanization in the case study provide planners clearer understanding and also divide the challenges stimulating land conversion. Similar to the national level, the transition factors, market-led economy and political attitude of economic developmentalism largely allow and arrange land conversion in the land quota system. However, percolation model gains ground in urban plans in Nanjing, but does this also occur in land use plans of Nanjing? One might wonder how the percolation model in urban plans influences land use plans where the given land for conversion is dominated by economic developmentalism nationally.

The urbanization factors reflect on the incentives for land conversion in Nanjing. The internal and external routes coincide with the theory. The external route with globalized market and technical innovations drives urbanization in Nanjing. While the internal route of markets and politics demands land conversion takes the local growth of economy and local political preferences into account. An additional local urbanization factor deserve more inquiry, due to the increase of demographic migration the land quota raise for more land conversion.

The case study Nanjing revealed distinctions in land conversion challenges for the contribution of better comprehension and policy making.

## 5 Conclusion and discussion

The sub-research questions support in order to answer the main research question. Firstly, a sub-research question is; *What are the main factors that influence rural-urban transition and urbanization processes?* The transition factors are the market-led economy and the political attitude separated into economic developmentalism, personal institutionalism and the percolation model. However, most dominant is the economic developmentalism in transitional China. Urbanization factors are the external route through the technological change with the globalization of markets and the internal route with the intertwining of market and politics. The six variables of interrelated transformations of urbanization, technological change, demographic movements, political devolution and institutional change, markets, globalization and urbanization itself are not neglected, because each variable can influence each other and alter the routes.

Secondly, *how did spatial planning evolve in China?* The opening up of the market allowed more land conversion to take place, however, without abandoning the socialist ideology of equality, resulting in a division in spatial planning with a dual-track character of the land system. On the one hand the “market track” in the land system aims to increase economical growth and financial merits on all levels executed by urban planning and the political attitude of economic developmentalism supports the “market track”. On the other hand, the “planned track” aims to protect food security deriving from the socialist ideology under the responsibility of land use planning.

Thirdly, *how do the transition and urbanization factors contribute to land conversion in Nanjing?* The driving factors of transition and urbanization processes provide clearer understanding of incentives for land conversion and also enlighten empirical land conversion challenges in Nanjing. Similar to the national level, the transition factors largely allows and arranges land conversion via the land quota system in spatial planning. However, the percolation model gained ground in urban plans in Nanjing. One might wonder, how the percolation model in local urban plans influences land use plans where the given land for conversion is dominated by economic developmentalism nationally, and answer this in further scrutiny.

The urbanization factors reflect on the incentives of land conversion in Nanjing. The internal and external routes coincide with the theory. The external route with globalized market and technical innovations also drives urbanization in Nanjing. Though the internal route of markets and politics demands land conversion driven by the local growth of economy and the local political preferences. An additional local urbanization factor deserve more attention in Nanjing and China, due to the increase of demographic migration the land quota is raised for more land conversion. For instance, an inquiry could be that in what sense does the demographic migration factor demand land conversion in Nanjing and/or China?

The main research question is; *how do transitional and urbanization factors contribute to identify factors of land conversion in China?* The two theoretical perspectives of transition and urbanization contribute to the

comprehension of land conversion in China by including larger views of the driving factors. The transition factors, market-led economy and the political attitude of economic developmentalism, allow and arrange land conversion through the land quota system with ambiguous ends. To protect food production is one end, while economic and financial growth is the other goal and both influences land conversion. The land quota system guides land conversion for meeting economic ends and in assistance of the dominant political attitude of economic developmentalism. Second, the urbanization factors in the external route reveal the incentives for land conversion that drives urbanization in China and likewise in Nanjing. The internal route with economical and political urbanization factors demands land conversion nationally and locally. The demographic migration factor of rural to urban population deserve attention because it extend the internal route of Heikkila's (2007) theory of urbanization, at least for the phenomena of land conversion in China.

A discussion point is the conjuncture element of the Chinese economy when this fails to operate, perhaps the recent dispersed financial crisis around the globe could be a reason. Nonetheless, would the opened economy return to a closed economy once more and convey spatial planning to perhaps a "Fourth spring" and less economically driven? Although this is not the case yet, too, similar questions are asked by Dittmer amongst others, because economic developmentalism has the upper hand and growing still and demanding land alarmingly for urban purposes. Dittmer's three theories (2003) can be associated with the political factor of the interrelated transformations of urbanization of Heikkila (2007) in a sense that the view is more in depth. And the internal route illuminates the discussion point, whereby interaction between market and politics alters urbanization. However, the sameness of the political and market factor can be disputed by the argument that politics is still dominated by social thinking with economic developmentalism. The significance of political factor accounts heavier than market stimulus.

So, the large perspective discloses not lonely that economy is imperative for land conversion in China, but accordingly that politics influence land conversion in two ways. In the transition sense allows land conversion for the purpose of economic growth and in turn in the urbanization sense demands land conversion. Consequently, local demographic migration experiences show that this factor should not be neglected in the urbanization processes for land conversion. In the end the exploration reveals that land conversion deserves to acknowledge politics and demographic migration. A starting point is made for further inquiries.

## **Glossary**

CAC	Central Advisory Council
CR	Cultural Revolution
FDI	Foreign direct investments
GDP	Gross domestic product
GIS	Geographic Information Systems
GLF	Great Leap Forward
IMF	International Monetary Fund
LUGP	Land Use General Plans
NCPB	National City Planning Bureau
NPC	National People's Congress
SEARUS	Seeking East Asian Rural Urban Synergy
SEZ	Special Economic Zone
SOE	State Owned Enterprise
TVE	Town and village Enterprise
WTO	World Trade Organization



# Appendix 1

Changes of the role of planning in China.

<i>Period</i>	<i>International Events</i>	<i>Domestic Events</i>	<i>Urban Planning in China</i>
1949-52	Korean War Cold war Soviet Union (USSR) as the leader of the socialist alliance	The People's Republic of China founded in 1949 Involved in and recovered from war Technical and financial aids from USSR in preparing for China's reconstruction, including the introduction of the central-planning system	Creation of city reconstruction institutions from the central to local governments Construction of basic sanitation and utility facilities in cities Slum area upgrading Establishment of Central Financing and Economic Development Committee in charge of economic-social development plans
1953-58	Competition between the East and the West in economic development USSR as the leader of the socialist alliance Cold war	Industrialization with help of the USSR The 1956 Socialist Education movement in which private businesses and urban housing were nationalized The 1957 "Anti-the Right" movement in which intellectuals were forced to receive socialist reeducation The 1958 "Great Leap Forward" as a political and economic development movement to "beat the West"	One hundred fifty-six large-scale industrial projects in new and old cities from 1953 to 1957 (the first Five-Year Plan) The number of cities increased from 135 in 1949 to 176 in 1957; 150 cities developed and adopted master plans Establishment of planning institutions in charge of land use and infrastructure plan in all cities Soviet planners trained Chinese peers both in China and in the USSR The predominance of the Soviet planning model: emphasizing economic development and industrialization rather than quality of urban life
1959-65	Cold war, tension between the East and the West Disolution of the Soviet-China coalition Vietnam War Speeding up economic growth in the West	China adopted a self-sufficiency policy with the dissolution of the coalition with the USSR Depression and natural disasters from 1959 to 1962 Recovered from depression in 1963 The 1964 ideology purification movement and against USSR's "revisionism"	"Planning should serve for the transition to communist society" in 1958-59 Terminate planning activity for three years (1960-62) due to depression and natural disasters Urban residents, including planners, were forced to go to the countryside to reduce population in cities No infrastructure and housing construction from 1960 to 1962 Planning for "socialist city" since 1964: emphasizing production rather than consumption
1966-76	Civil Rights movement in the United States and student movement in most Western nations Japan's economic growth Energy crisis in the 1970s End of Vietnam War	Cultural Revolution that almost destroyed China's entire economic and political foundation and isolated China from the outside world Anti-intellects of all professions, including planners Mao's death in 1976, which ended the power of the Extreme Left	"Planning is useless should it not serve proletarian politics and reduce differences between urban and rural life" Planners were forced to receive reeducation by workers and peasants Eliminated planning institutions and activities in most cities for ten years
1977-91	Economic restructuring in Western countries The raise of the four tigers in Asia	End of the Cultural Revolution; economic development rather than politics received more attention	Recovery of planning institutions and activities Revised and developed master plans for almost all cities and towns in the 1980s The national urban policy: controlling large

<i>Period</i>	<i>International Events</i>	<i>Domestic Events</i>	<i>Urban Planning in China</i>
	Collapse of the East European socialist nations and the Soviet Union by the end of the 1980s and early 1990s	Starting Deng Xiaoping's reforms and adopting "open-to-outside" policy Reforms in rural areas: significant growth of agricultural production in the 1980s Starting reforms in urban areas in 1984, but confronting barriers: the "caged bird" policy Housing reform: the rebirth of the real estate industry in the late 1980s The 1988 Constitution: allowed various ownership and the separation of land ownership from land use rights, which laid the foundation for a land market The 1989 student movement	cities, rationally promoting medium-size cities, and actively encouraging small towns in urban development The construction of a legal system of planning: the 1990 City Planning Act of China and planning regulations at the local level Housing construction booming in both urban and rural areas Preparing for a land market: the influence of the Hong Kong model
1992-now	Most Western nations completed economic restructuring A strong U.S. economy Economic globalization Asian financial crisis in 1996 The New Economy: information technology and its impacts on human life	Deng's efforts of speeding up economic reforms in 1992 Decentralization on revenue distribution and development funding Rapid economic growth: average growth rate more than 8 percent High inflation from 1992 to 1995 Rapid urbanization and large-scale rural-urban migration The emergence of a market economy, and the booming of the land and property market Foreign investment and its economic, social, and political impacts on the Chinese society China integrated into the global economy: World Trade Organization Slow political reforms	Booming urban development activities and large-scale infrastructure improvement projects Urban population growth and the pressure of migrants on cities The equity problem: gaps between the East and the West, and between the rich and the poor Urban sprawl in large cities and the 1998 Land Acquisition Regulation Internationalization of large cities: impacts of the West in urban life Corruption in urban development and land leasing The birth of an owners' association and the emergence of a multiplayer decision-making structure

Source: Changes of the role of planning in China, Zhang, 2002

## Appendix 2

No.	Name of the task	No.	Name of the task
1	Forecast the demand for urban land	43	Budget plan for reclamation
2	Make draft land use planning	44	Budget approved
3	Organize experts to assess the draft plan	45	Design detailed reclamation schedule
4	Ask for public opinion on the draft plan	46	Announce the reclamation schedule
5	Submit the draft plan for approval	47	Execute reclamation
6	Legalize and announce the plan to public	48	Check the reclamation after completed
7	Apply for quota from provincial government	49	Prepare for land banking
8	Approve projects by municipal government	50	Transfer land use right to state-owned
9	Design draft plan for a detailed project	51	Pre-service of the land
10	Approve the draft plan of the project	52	Prepare the application for land use change
11	Pre-check by urban planning bureau	53	Check the land use due to land use plan
12	Pre-check by land management bureau	54	Submit the land use for approval
13	Pre-check by environment protection bureau	55	Land assessment
14	Pre-check by water resource bureau	56	Make a benchmark price for the land
15	Loan from a bank	57	Announce conveyance of land use right
16	Feasibility assessment on the project	58	Allocate administratively
17	Approval by committee of development and reform	59	Conveyance by negotiation
18	Second check by urban planning bureau	60	Bidding, auction, bulletin the land
19	Design detailed plan for construction	61	Decide the land user
20	Sunlight analysis	62	First register the land use right
21	Landscape analysis	63	Provide the construction certification
22	Public announcement for the project	64	Prepare for construction
23	Approve the construction plan	65	Designs the construction
24	Approve the use of Urban land	66	Check the designs
25	Survey land	67	Approved by urban planning bureau
26	Approve survey result	68	Bidding for construction company
27	Preparation for farmland acquisition	69	Construction initiated
28	Design the schedule for farmland conversion	70	Find monitor for the construction
29	Approve the schedule by state council	71	Safe construction qualification
30	announcement after the schedule be approved	72	Construction permission
31	Acquisition compensation registration	73	constructing
32	Ask for opinion from the farmers	74	Detailed project approval
33	Revise the conversion schedules	75	Submit files on construction completed
34	Relocate the lost-land farmers	76	Up-level authority check
35	Decide the compensation standard	77	Monitor conclusion report
36	announcement of the details of compensation	78	Check by urban planning bureau
37	Reemploy the farmers by off-farm jobs	79	Check by construction committee
38	Prepare for land reclamation	80	Issue formal certification of plan qualified
39	feasibility assessment on the reclamation	81	Registration for the building property
40	Land survey for reclamation	82	Conveyance in secondary land market
41	Ask for opinion from the village committee	83	Registration again for conveyance
42	Reclamation approved by up-level authority		

Source: Main tasks of farm land conversion in China, Beckmann et al. 2008

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