

Controlling A Fast-Growing Urban Region: A Case Study in the Bangkok Metropolitan Region

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Abstract

The paper examines a planning situation that occurs in an area that is brought under a strong development control. It outlines what kinds of planning tools are applied to control the area's growth, how they are implemented, what effects they lead to the area, why the planning situation is what it is and what implication of this is for urban planning practice.

The paper is based on a research in a suburban segment of the Bangkok Metropolitan Region, called Bang Kachao. The territory is a vast agricultural enclave surrounded by high-density built-up settlements of an industrial heartland. In 1977, it was designated to be an environmentally preserved zone for the metropolitan region. This was followed by a series of planning measures, such as the creation of public recreational areas, land use zoning, building code control and land purchasing programme. All measures were evidently physical-oriented, and most have failed to achieve their planned targets.

Although the planning intervention has succeeded in keeping the majority part of Bang Kachao undeveloped, it has never created the area's physical form in the way desirable according to the planning objectives. Most preserved agricultural land has been unproductive, poorly maintained and deteriorating and become

The paper is based on the research and field survey of the author in 2002.

jungle-like. Most public recreational sites have been in poor state. Squatter settlement has continually expanded. Moreover, despite the area located in a prosperous zone, its local economy has been stagnant.

The study argues that the planning failure is a result of the combination of poor planning approach and poor enforcement. The physical-bias measures, failure to recognise the dynamic characteristic of the area surrounding, apolitical nature of the planning process, and ignorance of implementation capability, monitoring activity and enforcement constraints are regarded as major factors that constitute planning weaknesses. The paper discusses that despite the wide recognition of such planning situation, many governments have repeated such problematic approach, and thus inevitably experienced undesirable planning outcome.

Keywords: Metropolitan, Bangkok, Fast-growing Urban Region

บทคัดย่อ

บทความนี้อภิปรายการใช้มาตรการทางผังเมืองในพื้นที่ชานมหานครขนาดใหญ่ ซึ่งเป็นบริเวณที่มีการเปลี่ยนแปลงอย่างรวดเร็ว ทั้งทางด้านกายภาพ ประชากรและเศรษฐกิจ โดยมุ่งเน้นไปที่เครื่องมือทางผังเมืองที่รัฐใช้เพื่อสนองแนวนโยบายจัดรูปเมืองรูปแบบวิธีการนำเครื่องมือดังกล่าวไปปฏิบัติ ผลที่เกิดขึ้นกับพื้นที่และชุมชน และประเมินความสำเร็จหรือล้มเหลวของมาตรการที่ใช้ ในส่วนท้ายสุดผู้เขียนพยายามชี้ให้เห็นถึงเหตุปัจจัยแห่งความสำเร็จหรือล้มเหลวของแนวนโยบายทางผังเมืองของรัฐต่อพื้นที่ชานมหานคร

การอภิปรายในบทความนี้จะใช้ข้อมูลการศึกษาของกรณีศึกษาในพื้นที่บางกะเจ้าเป็นหลัก บางกะเจ้าเป็นพื้นที่เกษตรกรรมขนาดใหญ่ทางตอนใต้ของกรุงเทพมหานคร ที่ถูกล้อมทุกด้านด้วยชุมชนเมืองหนาแน่น ที่เป็นแหล่งอุตสาหกรรมและการค้าขนาดใหญ่ของกรุงเทพมหานคร ในปี พ.ศ. 2520 รัฐบาลได้ริเริ่มนโยบายอนุรักษ์พื้นที่นี้ไว้ให้เป็นพื้นที่สีเขียวของภาคมหานคร และได้ดำเนินมาตรการทางผังเมืองหลายรูปแบบเพื่อควบคุมการเติบโตของชุมชนเมืองในพื้นที่บางกะเจ้า เช่น มาตรการและแผนควบคุมการใช้ที่ดินและการปลูกสร้างอาคาร โครงการสวนกลางมหานคร มาตรการเวนคืนที่ดิน และแผนจัดซื้อที่ดินตามความสมัครใจ เป็นต้น ซึ่งล้วนแล้วแต่มุ่งเน้นการควบคุมทางกายภาพทั้งสิ้น

แม้นโยบายอนุรักษ์พื้นที่สีเขียวของรัฐบาลจะประสบผลในการชะลอการเติบโตของชุมชนเมืองในพื้นที่บางกะเจ้าอย่างเห็นได้ชัด แต่ในประเด็นของการรักษาพื้นที่สีเขียวที่มีคุณภาพซึ่งเป็นหัวใจของนโยบายนี้กลับยังเป็นข้อสงสัยอยู่ จากการสำรวจพบว่าพื้นที่สีเขียวส่วนใหญ่ในบางกะเจ้าเป็นพื้นที่สวนเสื่อมโทรม รกร้าง แปลงที่ดินเป็นจำนวนมากถูกถมจนราบเรียบเพื่อรอการขายต่อ สวนสาธารณะของรัฐขาดการดูแลรักษา ระบบชลประทานดั้งเดิมถูกทำลาย นอกจากนี้ชุมชนที่อยู่อาศัยยังขยายตัวอย่างต่อเนื่อง แม้จะไม่รวดเร็วเท่าพื้นที่โดยรอบบางกะเจ้าก็ตาม และเศรษฐกิจชุมชนเดิมเสื่อมถอย

จากการศึกษาการเชื่อมโยงเหตุปัจจัยที่เกี่ยวข้องในกรณีศึกษาพบว่า เหตุที่ทำให้เป้าหมายนโยบายและแผนไม่บรรลุผล มาจากทั้งแนวทางนโยบายไม่เหมาะสมและการบังคับใช้มาตรการทางผังเมืองไม่เคร่งครัดเพียงพอ การศึกษาชี้ว่าการใช้มาตรการทางผังเมืองที่เน้นการควบคุมทางกายภาพจนเกินไป การใช้เครื่องมือทางผังเมืองไปในทางเทคนิคโดยละเลยปัจจัยทางเศรษฐกิจ สังคมและการเมืองในพื้นที่ และความต้อยประสิทธิภาพของหน่วยงานควบคุมและนำแผนไปปฏิบัติ ล้วนแล้วแต่มีส่วนในการทำให้นโยบายทางผังเมืองในบางกะเจ้าไม่ประสบผลตามเป้าหมาย และก่อให้เกิดผลร้ายแก่ชุมชนเดิม

แม้จะมีบทเรียนของความล้มเหลวเป็นจำนวนมากจากกรณีศึกษาทั่วโลก รัฐบาลส่วนใหญ่ในประเทศกำลังพัฒนายังลุ่มหลงในการดำเนินแผนนโยบายและมาตรการเดิมๆ ที่มุ่งเน้นการควบคุมเชิงกายภาพ และละเลยปัจจัยอื่นๆ ที่เชื่อมโยงกันอย่างแยกไม่ออก ดังนั้นผลลัพธ์ที่เกิดตามมาจึงไม่อาจหลีกเลี่ยงความล้มเหลวไปได้ กรณีศึกษาบางกะเจ้านี้เป็นอีกตัวอย่างหนึ่งของแผนนโยบายและการปฏิบัติการที่ยึดมั่นในแนวทางเดิมๆ อย่างไม่เปลี่ยนแปลง แม้ตลอดระยะเวลามากกว่าสามทศวรรษ ตั้งแต่เริ่มประกาศนโยบายในบางกะเจ้ามา เป้าหมายนโยบายจะไม่เคยบรรลุผลเลยก็ตาม

คำสำคัญ : ผังเมืองมหานคร, พื้นที่ชานมมหานคร, นโยบายผังเมือง

1 Introduction

According to a new UN report, it is the first time in history that more people now live in cities than rural areas. The world's population is now 6.6 billion and slightly more than half reside in urban areas, the majority of them in developing world. Urban population is growing at a phenomenal rate. Cities which are already larger than any known in the past continue to expand without any visible limits. The outward expansion is so great in both scale and speed. This poses a huge challenge to those responsible for the management of urban development in finding a way to cope with undesirable products of the rapid growth such as haphazard and unmanageable land use pattern, and insufficient and inefficient public services.

Over the past decades, urban planners have faced an enormous task to meet this challenge. They have applied many planning instruments designed to bring the dire situation in the fast growing area under control. However, evidence suggests that a great number of the attempts have brought about unsatisfactory outcomes. It is not uncommon to find that, despite deliberate planning arrangements, large numbers of citizens are still left without adequate shelter and access to safe water or sanitation, and haphazard patterns of urban growth are still prevalent causing economic inefficiency, environment degradation and human misery.

This paper seeks to understand planning situation in the fast growing area of an urban region and its implications for urban planners. It focuses on planning approaches applied as the vehicle for the area intervention and their conceptual foundation, and tries to clarify factors underlining the planning situation. The elaboration of this is pursued through the case study in the sprawling zone of the Bangkok Metropolitan Region (BMR).

In the late 1970s, the Thai government sought to provide a generous amenity service to the region which has always lacked publicly-accessible open space. It initiated a plan that aim to convert a vast agricultural enclave called Bang Kachao, which is located some distance south of central Bangkok, into a public park. Over the past three decades of the planning intervention in Bang Kachao, it is realised that the planning outcome are both satisfactory and dissatisfactory. The study outlines what kind of planning instruments employed in the territory, how they are implemented, what degree of success is so far and what effects they lead to the community, and discusses why the situation is what it is, and what the implication of the case is to the planning practice in general.

2 Fast Growing Regions and Planning

In recent decades the nature of the global urbanisation process is changing towards dispersed concentration. There has been a spatial polarisation of development and population emerging around a few urban agglomerations at the top in the urban hierarchy, while within such urban agglomerations themselves, a decentralisation process has been underway. This implies that the great extent of the dramatic urban growth has occurred in a few urban centres, particularly in their outer segments. In many urban centres, the scale of outward expansion is so

great that it has led to the formation of very-large urban regions, covering an area some 100 km radius from the core and accommodating over 10 million people. The rapid growth has obvious implications for planning and management of such urban regions. In the developing world in particular, it has given rise to pervasive haphazard land development, and the failure to expand infrastructure and services, such as water supplies and sanitation systems, housing supply and transportation, to keep up with the growth of population. This has been a prime cause of misery in many urban regions in developing countries.

With such urban misery, most governments have pursued the policy to control the process of urban growth. Many have taken actions to influence patterns of population distribution, to curb the growth of large cities and to shape urban settlement patterns, such as rigid control over land uses, subsidies for investors in hinterlands, the growth-pole development and the promotion of other small settlements. However, evidence suggests that few governments have accomplished any real success, and how far any of these actions have had any real impact on the pattern of urban growth is unclear.

With all the efforts, a fundamental question is raised: why the planning intervention fails as such? Some observers argue that urban growth cannot be controlled at all. Others suggest that governments in developing countries actually have inadequate skills and capabilities to intervene in the process of urban development. Neo-liberalists contend that in principle governments should not intervene in the urban development process and should leave the process to the self-regulating forces of the market. Whether or not urban growth can be controlled and whether or not it should be intervened by the governments are practically a non-issue. Indeed, all governments have intervened in the urban development process and have instated a degree of control over urban growth, whether directly or indirectly, in response to the common failure of the market mechanism to provide a satisfactory outcome to society as a whole (Devas and Rakodi 1993). The argument on that most governments are incompetent to intervene in urban development is fairly valid. Evidence from many developing countries shows that much government intervention in urban development in fast-growing regions has been inappropriate, insufficient, inefficient and hence ineffective.

Accordingly, in order to realise why the failure of the planning intervention repeatedly occurs, attention should be placed on the way the planning and management of urban development is pursued. Based on the survey and review of city planning in many developing countries, UNCHS (1996) points out that many urban plans fail in practice because they are over-ambitious, given the capabilities of the administrative system to enforce their implementation.

In most developing countries, planning assumptions usually stemming from the foreign planning thoughts are unrealistic and thus this leads to unrealistic planning goals. The institutional capacity is usually disproportionately small to handle rapid changes and to fulfill the planning aspirations. A proper legal and administrative framework is usually absent. The preparation and enforcement of urban plans has often been based on obsolete planning ordinances. Technical skills and financial resources are inadequate. The co-ordination between different agencies involved in an area development is deficient. The centralisation of planning is accentuated. Planning powers and responsibilities usually concentrate on the central government. Participation by the population in the planning process is limited. Typically, plans are prepared by professional planners working in agencies remote from channels of community expression. Usually, a perfunctory discussion is only allowed at the end of the plan-preparation process.

In particular, the traditional master plan and physical control approach imported from developed countries has been popular in the developing world. With a long period of widespread application, it is realised that generally the approach does not sufficiently control the quality, pace and distributional effects of land development. Its plans hardly function to shape urban development, and development activity is too often disorganised. The form of physical-led blue-print plans has worked well in many developed countries. This is largely because in such countries administrative and institutional capacity is sufficient to deal with urban changes; planning enforcement is effective; there is the involvement of formal organisations in the residential, commercial and industrial sectors through process of institutional bargaining and the rule of the game are known; development conforms to set procedures, planning and building applications, development briefs and public hearings; and urban growth is relatively slow and average household

incomes are high. Unfortunately, these essential preconditions have hardly been found in developing countries. Therefore, the desirable planning outcome is unlikely. Especially when the question of growth and income is concerned, the rapid urban growth and low-income population in cities in the developing world has overwhelmed the financial, human and institutional resources of the governments. Moreover, such growth has taken place outside the formal planning framework as recognised by most governments in informal residential and business sectors. UNCHS (1996) points out that even when the majority of population and economic activities is located in illegal or informal settlements, urban plans may remain largely aiming to serve formal settlements, the minority and influential high-income clients.

The physical-led approach itself also embraces some inherent weaknesses. A plan is often comprehensive and takes many years or decades to prepare and extremely costly. With the lengthy period of preparation, most plans are not only obsolete but also unable to be implemented. In most planning processes, too much emphasis is put on plan-making and too little on implementation. The apparent nature of physical bias does not reflect the real world requirements of economic development, political priorities and the weak role of planners in enforcing the plans. The rigid regulations using zoning, subdivision and building policies and standard usually fail to keep up with constant urban changes, and generate more costs than benefits to residents and businesses. For example, regulatory measures such as minimal plot size, density limits, building set-backs, permissible building materials and floor-area ratios are imposed to prevent undesirable environmental impacts of uncontrolled land development. But they effectively force up land and property prices and reduce land availability to a large number of households and businesses.

In planning an area in the sprawling zone, it is suggested that the planning authority needs to take into account the new realism of planning situation in fast growing regions which recognises the ever changing physical, socio-economic and political conditions. An effective planning should be one that makes an appropriate combination between government's actions and market operation. A plan needs to be flexible and incremental with an effective system of monitoring and participation. A control on urban growth should be carried out with a careful consideration on

economic and social effects. A plan should be not only strong enough to prevent ecological and environmental deterioration and other negative consequences that accompany settlement in fast growing regions but also flexible enough to permit the areas to develop in a healthy and socially responsible manner (Devas and Rakodi 1993, Robinson 1995 and UNCHS 1996).

3 Bang Kachao and Planning

The shortage of publicly-accessible recreational space has long been a serious problem of the Bangkok Metropolitan Region (BMR). In the late 1970s, the government decided that an action needed to be taken. It initiated a policy called the Green Preservation Policy in response to the problem and designated a massive rural area south of Bangkok, called Bang Kachao, to be an environmentally preserved zone of the region.

Situated in the southern fringe of central Bangkok, Bang Kachao is a vast agricultural enclave, nearly 19 sq km, surrounded by high-density built-up settlements of one of the country's industrial heartlands. Although the built-up territory in the BMR has successively sprawled out to cover an area beyond fifty-kilometre radius from the Bangkok core, the area, which is mostly located within ten-kilometre distant from the city centre, has mainly maintained rural characteristics with the traditional form of agricultural land use, orchard; a comparatively small population; an insignificant number of large buildings, and a relatively low land price. In 2005, over 70 percent of its terrain had remained undeveloped. The geographical constraint created by the meandering curve of the river bordering most of the land to its west, north and east coupled with an absence of connecting bridge severely limited accessibility to the area. As a consequence, despite its prime location on one of the most intensive development corridors, Bang Kachao has been leapfrogged by the mainstream urban growth.

From the government point of view, the acquisition of the area offered the advantages of relatively cheap land, and potentially weak opposition. Therefore, Bang Kachao was a favourable choice for constructing a public park which could be quite conveniently accessible by a sizable population. It was expected to help reducing the intensification of the development nearby and providing a breathing

space for the heavily developed area. However, the initiative in the late 1970s had hardly been materialised. There was no concrete action carried out to realise the policy's objective. As time went on, it was apparent that more and more agricultural land in Bang Kachao had been converted for either urban uses or speculative purposes. There was a serious concern that the whole agricultural land had been under the serious threat. By mid 1991, the government revitalised the preservation policy. This time, concrete action was pursued with the introduction of the Central Metropolitan Park project (CMP). It was designated that the majority part of Bang Kachao terrain, around 15 square kilometres, would be transformed into a city park; all the local community within the project confine would be displaced; and landscape and facilities for recreational activities would be built. As part of the project implementation, the royal decree for compulsory acquisition of the entire land within the project confine was promulgated, a plan to relocate local people to a suburban site was prepared, and the park layout was designed. The government scheduled that the project was to be completed in 1999.

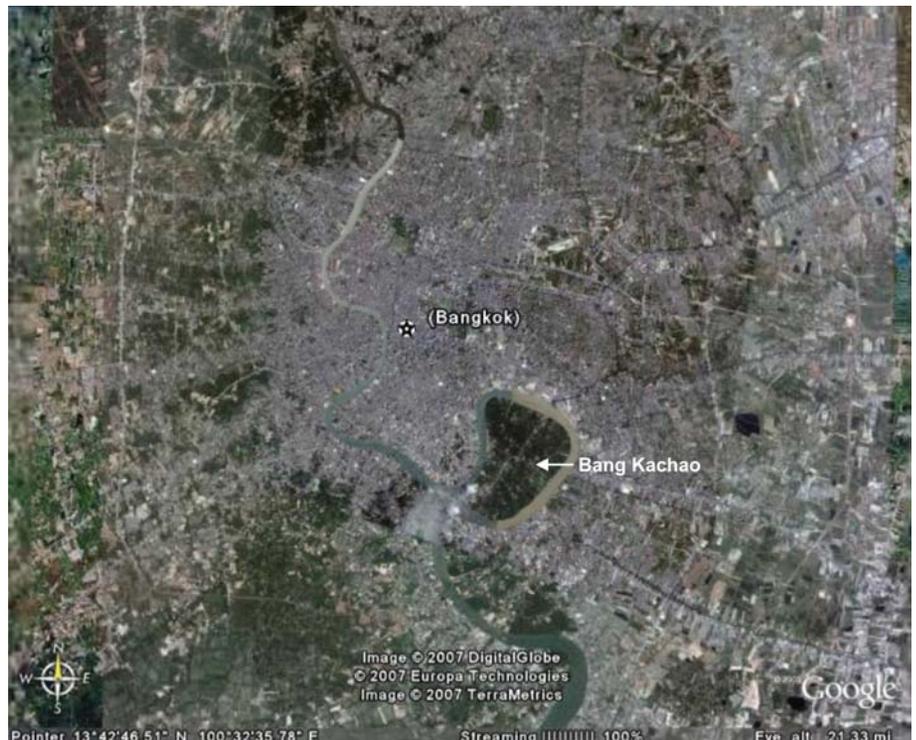


Figure 1: A Satellite Photographic Image of the Bangkok Metropolitan Region and Bang Kachao, 2005
Source: googleearth.com

These government actions immediately provoked a strong resistance from the local communities and landowners. Supported by locally-based politicians, local people held a series of protests against the land acquisition and displacement scheme. The conflict had developed into intense confrontations between government staff and local residents. After a sequence of talks, the government eventually modified its plan in late 1991, proclaiming reconciliation. In essence, the policy to reserve Bang Kachao to be an open space would retain. But the compulsory land acquisition would be abandoned, and the land acquisition would be done by purchasing on the voluntary basis. Also, the government would commit to improve local well-being.



Figure 2 : Aerial Photograph of Bang Kachao and its surrounding in 2004.

Source: Royal Survey Department

To fulfil the environmental preservation objective with a great deal of compromise, the government envisaged that Bang Kachao would retain its outstanding feature which was characterised by dominant agricultural area and low-density settlements, while the local community would remain in the territory as well as local economic activities would be allowed. The majority part of the Bang Kachao land would still be privately-owned. Only the minority part would be nationalised and preserved for public uses. In addition, the settlement pattern would take the form of clustering development. The linear pattern, which tended to be prevalent, would be discouraged.

To achieve this, the government proposed that Bang Kachao terrain would be organised into two major zones: the community zone and the agricultural preservation zone. The community zone covered around one-fourths of the territory and consisted of six separate enclaves. It was designated to be the area where local people would live. However, the density of built-up settlement was kept at the low level. The collective area of the built-up settlement in the zone was not allowed to exceed ten percent of the total area of the zone. In the zone, there was the prohibition of multi-unit housing buildings, row houses and all land uses other than those for residential purposes, government institutions and facilities and utilities.

The agricultural preservation zone covered around three-fourths of the territory. It was designated to be the area where open landscape was strictly preserved, and community settlement is discouraged. It was planned that the zone would be composed of three land use types: public parks, urban forests and agricultural fields. Public parks and urban forests would be created on the land available from the government's land purchasing deals. The government set a target that it would buy 5.6 square kilometres of land in Bang Kachao. Of this, 1.6 square kilometres would be converted into city parks, and 4 square kilometres into urban forests. The remaining part of the zone, 5.1 square kilometres, would be reserved as the agricultural land and remain privately-owned. To maintain the open landscape in the zone especially in the segment that was in the private hand, the government would impose the strict control over land uses and constructions in the area which was to be more restrictive than that introduced in the community

zone. In the zone, the built-up settlement would occupy an aggregate area of no more than five percent of the total area of the zone. There was the prohibition of multi-unit housing buildings, row houses and all land uses except those for residential purposes.

In addition to the land use reorganisation proposal, the government aimed to restrict the form, density and location of buildings in Bang Kachao. It desired that the height of all buildings in the territory would not exceed 15 metres. Buildings would be located at least four metres apart and constructions of buildings within two metres from other plot boundaries would not be allowed. There was an absolute prohibition of constructions in specific areas, including the area within 8-12 metres from the centre of the main roads in the area, and the area within six metres from both banks of public waterways. Also, no less than 75 percent of any land plot must be left open.

In implementing this proposal, the government employed several planning instruments to shape the area development. These included passive planning regulations, i.e. land use zoning and building code control; and active planning tools, i.e. voluntary land purchase scheme, creation of public parks and urban forests, provision of infrastructure and public services and promotion of agricultural activities. Most of the planning instruments have been in effect from the early 1990s onward.

As the above description suggests, the majority part of Bang Kachao has always been undeveloped, although the area has been under intense development pressure, as it is located on one of the most intense development corridors in Thailand, and surrounded by high-density urban settlements. The planning device for Bang Kachao has been the most restrictive among those imposed in the BMR or even in all urban regions in Thailand. It has been adopted for three decades with its objectives and strategies hardly being altered despite a dramatic transformation in physical and socio-economic terms in the area surrounding. This is contrary to most of the planning measures applied elsewhere in Thailand that are subject to frequent adjustment depending on politico-economic situations and pressures from interest groups.

4 Planning Achievements and Impacts

To clarify whether the planning intervention in Bang Kachao is a success or failure, one would need to assess the performance of the planning actions against their targets, and find out how the planning actions have affected the local community.

In the late 1970s, approximately 95 percent of Bang Kachao land was undeveloped, being agricultural plots, woodland and wasteland. By the early 2000s, the proportion reduced to around just over 70 percent. The figures suggest that during the past three decades the urbanisation process in the area has been relatively slow. Bang Kachao has still retained its dominant rural character although its surrounding area has completely urbanised. With all the planning actions imposed in the area, it can be said that the planning intervention has worked well to slow down the otherwise speeding urbanisation process. However, it would be wrong to assume that the planning operation has been utterly successful. Indeed, the actual settlement pattern in Bang Kachao has hardly been shaped within the framework of the land use zoning. It is anticipated that the land use zoning would turn the haphazard linear development pattern which has characterised the Bang Kachao settlement into the clustering pattern in which community settlements concentrated in the six enclaves of the community zone. But such clustering pattern has never occurred. The linear development pattern has become even more evident in the 2000s. Aerial photographs shows that thousands of small buildings have spread along the roads in Bang Kachao with virtually no compliance to the land use zoning. Indeed, there has been no meaningful distinction in terms of the land development pattern between the community zone and the agricultural preservation zone. Both areas have been somewhat comparable in terms of development density and land uses. This implies that the land use zoning has largely failed to shape the development pattern in Bang Kachao.

The violation of the building code has also prevailed. It was not uncommon to discover constructions that did not conform to the building regulations in places

that were easily seen by the public. Many small structures were settled within the no-construction zone along the roads and public waterways. A number of multi-unit housing buildings, row houses and manufactures were found in many locations. Squatter and high-density settlements with very crowded buildings were prevalent. In essence, there has been a widespread and uncontrollable practice of land subdivision for renting out to the poor. The practice has accordingly encouraged the expansion of squatter settlements in Bang Kachao. The illegal extension of buildings was common. Many households either vertically or horizontally extended their houses without local authority's permission. Many of such extended houses had their height exceeding the legal limits and/or had their parts being too close to neighbouring houses. The pervasive violation of the building code indicates that such building regulation has largely failed to control constructions in Bang Kachao.

The government's plan to purchase the land for public reserve has also failed to meet its target. By the early 2000s, the government has bought only one-third of the area planned to purchase. This was mainly because of both the unwillingness of landowners to sell their land and the limited funds available for purchasing deals. After 1999, the budget for the purchasing scheme dried up, leading to the cessation of the purchasing deals ever since. The creation of public parks and urban forests on the purchased land has also experienced slow progress. At present, only one public park, 59 acres, has been completed. It has been well designed in a city park manner and relatively well maintained. However, as the park is located in the area's interior and the access is relatively inconvenient for outsiders, the number of users has been insignificant. Most of the users were local people living nearby rather than people living in the surrounding districts who were expected to be the main target of the park.

Throughout the period of the government intervention in Bang Kachao, agriculture in the territory has hardly been seriously encouraged, although it is a primary objective of the government's policy to retain agricultural land in the area. Although over 70 percent of Bang Kachao land has been classified as

agricultural area, less than 10 percent has actually been productive and yielded economically-valuable products. Most of the agricultural land has been left with little or no maintenance, and thus produced no economic yield. Many has been totally abandoned and become jungle-like. Many has been flatten with all trees cut down, prepared for sale or future development. The district office of the Ministry of Agriculture and Agricultural Cooperatives has been more interested in providing technical assistants to a small group of local full-time farmers who have still maintained their productive agricultural land plots than in improving the deteriorating agricultural land. The initiative conducted by a central government agency and local governments that tried to attract the local unemployed, the landless farmers and the poor to farm in the neglected land and reap the products without having to pay rent has largely failed as too few people have participated and those who participated have left the land within a short period. Farming is a hard and lowly work and requires initial investment. Also, prospective profit is usually unpredictable.

There have been attempts to improve infrastructure and other public services in Bang Kachao in order to upgrade living quality of local community and support local agriculture. By 1998, the permanent flood protection barrier built all along the area's river bank was completed. It has functioned well to protect the territory from seasonal flood that used to devastate local community and agricultural production every year. Although it is acknowledged that Bang Kachao has had a small and inadequate road network, the government has been reluctant to extend the network, worrying that the extended roads would encourage urban development in the area. Therefore, it has deliberately avoided to construct new roads, and restricted the road development to improving the existing road surface and widening the existing roads. The Metropolitan Waterworks Authority planned that by 1999 the piped water supply network would be extended to supply portable water to all households in Bang Kachao, replacing all the supply from underground sources. However, by 2006, it was just partly finished. The network served just less than half of the households. The majority of Bang Kachao households remained relying on water supply from underground sources.

Despite the prevailing failure to meet its targets, the planning intervention in Bang Kachao has profoundly affected the physical and non-physical conditions of the area. On the positive front, it has been the main determinant that prevented or at least delayed the widespread emergence of undesirable development, curbed the expected burgeoning population growth, instigated the preservation of better environment, and brought about the development of local public facilities and recreational venues in the territory. The benefits accruing from these have been felt both locally and regionally.

On the negative aspect, it is recognised that the heavy restriction of land development in Bang Kachao deeply undermined the local economic viability. With the unstoppable decline of agriculture in the area, the local economy has become stagnant or even degenerating. While the land for agriculture could no longer provide profitable yield for the landlords, it was not allowed to be developed for more economical uses, such as manufactures and commercial and housing estates. Few businesses have settled in Bang Kachao and so have few jobs and local economic transactions. Socio-economic data of Bang Kachao in 2005 indicate that low-paid casual workers were accounted for nearly 70 percent of the Bang Kachao workforce. They formed the largest socio-economic group in the area.

The stagnant economy of Bang Kachao means that the majority of local dwellers have had to earn their living in areas outside the territory. Most local workers who were employed in the formal sector have commuted daily to work in Bangkok or nearby urban nodes. A large number of local workers who were in the informal sector have usually been hired in the surrounding area of Bang Kachao. With an increasing number of local people spent their time outside the territory, Bang Kachao has gradually turned into a dormitory. Social interactions between local people which used to be prevalent in the past have been less and less frequent, and accordingly local social bond has been weakened.

The planning intervention has also affected the area's land use pattern. With no viable choice to reap benefits from land, a large number of landlords have left their land idle and turned to earn their living from other sources of income. The neglected agricultural plots have gradually degenerated and become wild. Some landlords found alternative ways to make profit from their land. Many have flattened their land, cleared all trees and offered the land for sale. The unsold plots have enlarged the stock of wasteland in the territory. Many landowners have subdivided their land into several small plots and rented them out cheaply to non-local low-income households. This has stimulated mass in-migration and led to an uncontrollable expansion of squatter settlements. With little development prospect, the price of land in Bang Kachao has been relatively low – just one-third of those in its surrounding area. The low land price and better environment have caught attention of urban elites. Official records show that in the early 2000s over 50 percent of land ownerships have changed hand from local dwellers to outsiders. Many affluent newcomers built luxurious houses on the newly purchased land and transformed agricultural landscape into flat lawn with exotic plants.

According to the above discussion, it is realised that most planning actions introduced in Bang Kachao have failed to meet their targets both in quantitative and qualitative terms, and the local community has experienced many detrimental effects from the planning measures. Based on these accounts, it can be concluded that the planning intervention in Bang Kachao is a failure. However, to conclude as such may not be entirely convincing. With nearly 80 percent of Bang Kachao terrain remaining open and green nowadays, it can be reasonably argued that the planning intervention outcome has been impressive - a parallel case has never been witnessed anywhere-else in Thailand. Whilst the area south of Bangkok has been highly urbanised for several decades, Bang Kachao has been kept predominantly rural. The strict land use control imposed specifically in Bang Kachao is a key factor that preserves the vast open landscape in the area. It could be expected that if the planning control was not installed decades ago Bang Kachao landscape would not be as what recognised today. The most likely possibility is that it would now be inundated by haphazard urban settlement like what typically seen in other areas in the sprawling zone of the BMR.

Nonetheless, it is the fact that, given the existing planning situation, the urbanisation process in Bang Kachao has been gradual but it has never stopped. One could anticipate the unrelenting conversion of undeveloped land to fulfil urban uses. As evident today, more and more agricultural land plots have been flattened with all trees cut down and ditch-dyke landform filled up for future sales or development; more and more luxurious houses with spacious gardens have been built; and more and more low-income shelters have been settled. It could be sensibly envisaged that, unless a more effective planning mechanism being introduced, the gradual and piecemeal development of small settlements would continue and eventually lead to the complete urbanisation of Bang Kachao terrain some day in the future. The continuing urbanisation of this kind would craft a settlement pattern that is characterised by low-density and myriad of mix small residential buildings located throughout the area.

5 Planning Approaches and Implementations

Why has the planning situation in Bang Kachao been as such? The planning policy to keep Bang Kachao green introduced since the late 1970s has been so powerful in that it has discouraged all high-profile investments, such as housing, industrial and commercial estates, that were otherwise in a favourable position to be located in the area. The planning regulations imposed since 1991 has ensured that such undesirable investments would never be established in the territory. However, the planning intervention has not been powerful enough to prevent small and piecemeal developments by myriad of land owners and small developers, and during the course of actions it has also produced adverse impacts to the local community. Based on evidence from the recent author's research, it can be argued that the failure of most planning actions to meet their targets is a result of several determinants, including:

Conceptual Constraints: The planning intervention in Bang Kachao embraces a great degree of physical bias. It focuses almost entirely on the reorganisation of physical settlement pattern, the control of built-up development and the provision of infrastructure. The social and economic factors and the impact

of the planning intervention on the local social and economic conditions are barely concerned. The land use plan and building code control are arbitrary and inflexible. The zoning pattern and building regulations has hardly been altered since the time they were launched although the social, economic and political situation in both the territory itself and the broader spatial extent has consistently and considerably changed. The local involvement in the planning process is ignored, whereas the top-down planning and professional judgement are overstated. The concern on the implementation stage of the planning process is overlooked.

This physical-bias approach is closely related to the failure of the planning intervention to meet its goals and the undesirable effects on the local community. The application of the physical planning control, notably the land use zoning and building code control, on the territory regardless of economic and social factors driven in the area viability leads to the obvious ineffectiveness of the planning implementation, the deterioration of agricultural land, the expansion of squatter settlements and wasteland, the stagnation of the local economy and the disintegration of the local social bond. The upgrading of the local living quality is heavily relied on the provision of physical infrastructure and facilities but totally neglects non-physical approaches such as the provision of social services and economic reinforcement actions. With the targets mostly unattained because of either the government's reluctance or incompetence, the physical provision has never elevated the living quality of the Bang Kachao people to the level comparable to those of its surrounding area. The strong trust in the superiority of professional judgement leads to an absence of effective participatory process that accordingly causes serious and consistent conflicts between the authority and the community. The deficient outlook toward underlining post planning stages means that the feasibility of implementation and the monitoring attempt are understated, and this results in the acute problem of resource scarcity and local resentment.

Structural Constraints: The planning intervention in Bang Kachao has a number of structural weaknesses. It has operated in the typified highly-hierarchical and centralised planning structure of Thailand. The decision making on spatial

planning and resource allocation has largely been top-down. Although local governments have had the authority to formulate development plans of their own areas, they have to prepare the plans under the rigid framework of upper-level plans which are produced by central agencies. Indeed, few local governments have actually had adequate resources to prepare their own plans. Therefore, the planning task at the local level has largely remained in the hand of central authorities, notably the Department of Town and Country Planning. This is obviously the case for Bang Kachao where its local governments are small, lacking of all resources essential for formulating their own development plans, and where the local plans are under the specific framework of the land use zoning and building code control imposed in the territory by the central government. The situation has inevitably led to central bias in which regional preference has been placed over local interest; and unresponsiveness in which the planning intervention has hardly responded to the changing physical and socio-economic conditions in the territory and in the broader spatial context as well as the changing demand and interest of stakeholders.

The typified administrative structure of the country creates a territorially-based administrative organisational form for governing most localities in Thailand which consist of the multitude of multi-layered and multi-functional government agencies, including four levels of provincial authorities, local governments, central departments involving in development and planning and service provider state enterprises. Typically in a local entity there are tens of government agencies operating in the area in some way or another. Bang Kachao is not an exemption. Almost a hundred government agents are active in the area. These include seven local governments, 69 provincial administrations, five central development and planning agencies, three service providers and two independent agents. Some of them are engaged in the area's governance; some in the area's service provisions; some in the area's planning; and some in a few fields combined. With the commonly poor coordination, the large number of government agencies operating in the same area has led to the conflict of interests and operations among them and the duplication of development tasks in the area. This greatly undermines the

efficiency and effectiveness of the planning intervention. The conflict of interest often results in the delay or pause of many planning actions and projects, while the duplication often results in either competition between agencies or deliberate abandonment of certain planning missions assuming that someone-else would hold responsibility to accomplish them.

Enforcement Weaknesses: The enforcement of the land use zoning and building code control has been assigned to the local governments in Bang Kachao. It is common in Thailand that local government units operating in the metropolitan outlying zone are small and rural-oriented. They govern a small territory with a relatively small population, and are designated to carry out rural-based functions. The units have a small revenue base and hence limited resources available. The local governments in Bang Kachao are typical of such manners. They have therefore experienced a great resource constraint - lacking most supporting resources, i.e. finance, workforce, equipment and technology necessary to efficiently perform the enforcement tasks.

In terms of service provision, the service providers have frequently lacked a sufficient budget to wholly complete a project at a time. Therefore, a service provision project is usually divided into multi-phases which take a long period of time until the total project completion. This is likely to undermine the effectiveness of the project in delivering optimal service to the community. Given the prevalent dynamism of typical urbanising area, one should expect that, by the time the project is completed, it would become obsolete as the local demand changes and hence the earlier project requirements which are the foundation of the project formation are no longer applicable.

In addition to the resource constraints, the planning enforcement in Bang Kachao has faced social constraints. It is not uncommon in Thailand that planning violations by the poor are deliberately ignored by local planning enforcers. The planning standards and regulations usually increase cost of constructions or make building in many areas illegal. With prominent economic constraint among the poor

in Bang Kachao, it is impossible for them to build their shelters according to the planning regulations. This fact is certainly acknowledged by the local authority in Bang Kachao, and thus they tend to turn the blind eyes on the poor settlements as long as there is no complaint against them.

Unfeasible Plans: Indeed the problem of planning implementation partly derives from the nature of the plans themselves. The retention of agriculture in the area located in the mid of highly urbanised zone seems to be a mission impossible. The formidable economic and social forces play important role in natural land conversion from rural to urban uses. Unless the serious government support through direct subsidies or management, the area would finally be urbanised. With the present weak and passive government intervention, the achievement of the planning objective is unlikely. The planning attempt to build a large public park covering the whole Bang Kachao territory is even less feasible. With its vast scale, it is unquestionably a mega project that requires a great deal of human and financial resources to handle burdensome tasks such as planning and coordination, land acquisition and constructions. With the fact that resource scarcity is the norm in the country's budgetary and personnel system, it is almost impossible for the government to successfully mobilise sufficient resources to achieve the project goal. Moreover, the initial plan to forcibly remove all local people from Bang Kachao is extremely hard to be attainable. The fierce resistance against the project from the start ended up with the compulsory land acquisition plan had to be abandoned and the project had changed its direction.

6 Conclusion

The planning case in Bang Kachao exemplifies an attempt of a government to control a fast growing urban region. On one hand, the planning intervention in the territory has worked well to withstand urbanisation that would otherwise spread out from the surrounding urbanised zone into the area. At present, the majority part of Bang Kachao has remained non-built-up. On the other hand, the planning intervention has largely failed to meet its planned objectives. The settlement pattern in Bang Kachao has never been shaped into the pattern outline by the

land use zoning. The violation of the building code control has been prevalent. The voluntary land acquisition scheme has achieved only a fraction of its target. Agricultural land has greatly degraded. Squatter settlements and wasteland have relentlessly expanded. The gradual conversion of agricultural land to urban land use has never been slow down. The building of recreational facility, i.e. public parks and urban forests, has had no progress. The infrastructure in the area has been slowly developed. Moreover, the planning intervention has detrimentally affected the local community. It has been a major determinant that caused the stagnation of the local economy and the disintegration of the local social bond. Also, many planning actions have provoked strong local resentments.

It is argued that the failure and undesirable effects of the planning intervention in Bang Kachao are associated with four major factors: conceptual constraints, structural constraints, enforcement weaknesses and unfeasible plans. The new realism of planning situation has made the traditional planning intervention which is based on physical-led and social democratic model irrelevant to the current planning context. The attempt to prevent urban growth without realising the new realism is neither effective nor desirable. The strong control on land utilisation results in economic decline and social disintegration. The extensive government intervention fails to meet its objectives because of limited administrative capacity and political will. The rigid, end-state blueprint and top-down plan which ignores monitoring and participatory process experiences a great difficulty in implementation. The structural constraints, i.e. highly-centralised planning structure and fragmentation planning agencies, have given rise to disadvantageous planning natures, such as central prejudice, unresponsiveness and unaccountability, unclear and conflicting responsibility, poor coordination, and implementation incompetence of planning agencies. These greatly undermine the planning implementation. The enforcement weaknesses, as a result of whether resource or social constraints, have allowed great extent of planning violation. The unfeasibility of the planning means themselves make the planned targets unattainable.

Given such planning circumstance, it can be seen that the planning intervention in Bang Kachao has paid too little attention to the reality of the planning situation in the area. It has failed to understand the area and planning environment in which it is to plan for, and to employ appropriate planning mechanisms to fulfil the policy goals and to deal with the dynamism in the study area. The approach is too weak to prevent undesirable settlement pattern, but too rigid to allow the economic and social development to be healthily proceeded.

In a broad sense, the planning situation in Bang Kachao is not unique, despite its unique settlement feature. Worldwide evidence (Devas and Rakodi 1993, UNCHS 1996, UNCHS 2001, ADB 2004 and Laquain 2005) suggests that the physical-led planning approach and the ignorance of the new reality of planning situation in the fast growing urban regions have remained common in many developing countries. A large number of studies point out that this practice is associated with the prevalent failure of planning interventions in the dynamic zone.

To make planning intervention more effective, an attempt should be made to create a planning mechanism that is not only strong enough to prevent ecological and environmental deterioration and other negative consequences that accompany settlement of fast growing urban regions but also flexible enough to permit the areas to develop in a healthy and socially responsible manner. Planners need to be more concerned with the reality of planning situation on the ground which involves a variety of physical and non-physical determinants, with people participation in planning process, with post-plan activities including implementation, monitoring and revision. Based on UNCHS (1996), the change that needs to take place is one from 'planning the city to a city that plans' and from product to process - the departure from the emphasis on a graphic image of a desirable future produced by specialised technical departments to the concern on consultations, initiatives and actions through which a city collectively maps its present situation, identifies problems and opportunities, develops an inherent vision of the future and translates it into social, economic and physical objectives supported by clear and realistic strategies.

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