



Perspective on Urban and Peri-Urban Agriculture in Cambodia's Capital: Phnom Penh

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Abstract Due to population growth and urbanization over two decades, Phnom Penh Capital's area has almost doubled from 375 square kilometer in 2001 to 692.46 square kilometer in 2019. Meanwhile, the number of farmers declined from 36.77% of the population in 2001 to 10% in 2015. Respecting these issues, the government of Cambodia prepared the Land use master plan of Phnom Penh City 2035. However, no clear implementation of the plan and the fast growth of construction have become the main concerns of international donors. Moreover, the integration of Phnom Penh with some areas of neighboring provinces will affect agricultural activities. Therefore, this research aims to ascertain more details of agricultural land use in Phnom Penh by responding to the Master Plan and to explain the current activities of urban agriculture or peri-urban agriculture in the capital. Owing to the pandemic, this research was conducted by solely reviewing and analyzing legal documents, reports from the government and donors, and other reliable sources. The Land use master plan clearly indicates the space reserved for the peri-urban agricultural activities; however, there are no details regarding agricultural policy dealing with the space reserved for peri-urban agriculture. The involvement of the Ministry of Agriculture, Forestry and Fisheries is also not explained. Based on the reports from donors and NGOs, lack of roles and responsibilities, limited capacity and limited finance have become the main concerns for the government regarding implementation of the Master Plan. Importantly, current rapid growth of construction does not pay any attention to the development of city plans. Housing complex projects have increased from 77 in 2011 to 178 projects in 2019. Some private businesses are practicing peri-urban agriculture on the outskirts of the capital by growing, selling some vegetables, and providing the space for the relaxation.

Keywords urban agriculture, peri-urban agriculture, agricultural policies, land use master plan

INTRODUCTION

Phnom Penh, the capital of Cambodia, is located in South-East Asia. All main activities including economics, politics, culture and diplomacy are centered in the capital which has the highest density of population 2,143,591 in 2021 based on the World Population Review. Phnom Penh covers the area of 692.46 square kilometer; consisting of 14 districts. Currently, Phnom Penh has expanded by integrating 20 other communes from neighboring province due to rapid population growth and urbanization. Back in 2001 Phnom Penh covered 375 square kilometers consisting of 70% for human settlement, 21% for agricultural activities, 8% covered by water, and remaining not in use (Em and Paule, 2005). The practice of urban agriculture did exist in the capital; however, the number of farmers declined from 36.77% of the population in the capital in 2001 (Em and Paule,

2005) to only 10% in 2015 based on the World Bank Group on Urban Development in Phnom Penh (2017). With respect to rapid growth of urbanization and population, the Government of Cambodia has prepared the Land use master plan of Phnom Penh City 2035. However, no clear implementation of the plan and the fast growth of construction have become the main concerns of international donors. Moreover, the integration of Phnom Penh with some areas of neighboring provinces will affect agricultural activities. Therefore, this research aims to ascertain more details of agricultural land use in Phnom Penh by responding to the Master Plan; and to explain the current activities of urban agriculture or peri-urban agriculture in the capital.

METHODOLOGY

Owing to the pandemic, the study was conducted by solely reviewing and analyzing legal documents, reports from the government and donors, and other reliable sources.

RESULTS AND DISCUSSION

Land Use Pattern in Phnom Penh

Official data on two new integrated districts (Kambo and Boeung Keng Kang) in Phnom Penh is not available. Fig. 1 shows the administrative boundary of Phnom Penh with only 12 districts. Among the 14 districts, Chraoy Chongvar, Dangkao, Kambo, Mean Chey, Praek Phnov, Pur Senchey and Sensokh are considered to be the outskirts areas of the capital (Realestate, 2021).

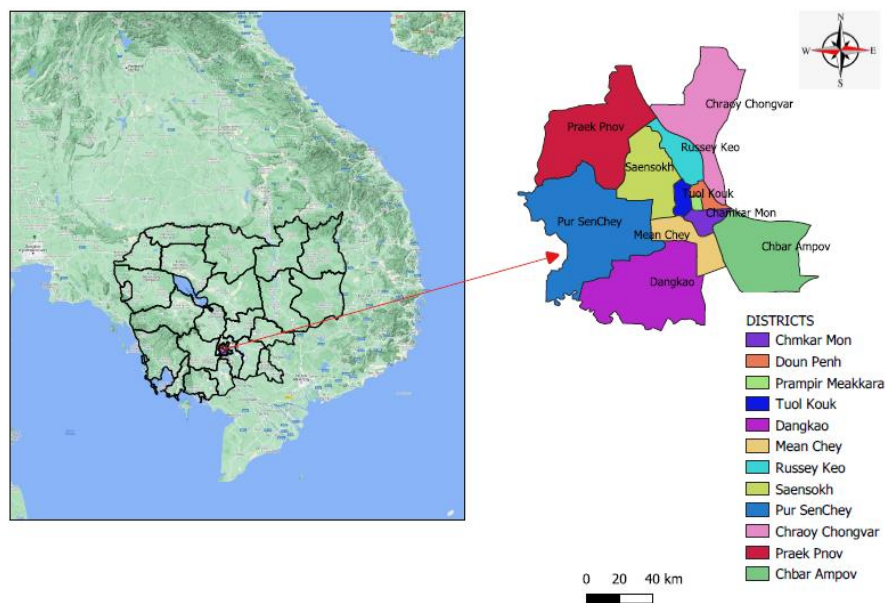


Fig. 1 Phnom Penh administrative map

Urban Agriculture in Phnom Penh

Decades ago, according to Khmer (2007), most of people living in Phnom Penh did not practice agricultural activities even despite of potential agricultural land. At that time, there were only a few NGOs working on urban and peri-urban agriculture. At the present time, core areas of Phnom Penh have been occupied by economic activities. Based on the data from Phnom Penh's Department of Agriculture, Forestry and Fisheries in 2019, some districts on the outskirts of Phnom Penh are used for growing rice and then for growing vegetables after the rice harvesting season.

Table 1 Agricultural land in Phnom Penh

District	Rice Growing Area (ha)	Ownership (ha)	Rent (ha)
Praek Pnov	1,409	1,372	37
Chraoy Chongvar	152	75	87
Chbar Ampov	6	6	-
Saen Sokh	247	217	30
Dangkao	3,273	2,247	1,026
Pur Senchey	310	80	230
Kambo	3,048	1,996	1,052

Source: Phnom Penh Department of Agriculture, Forestry and Fisheries (2019)

Land Use Master Plan for Phnom Penh Capital 2035

Because there is no clear land use pattern in Phnom Penh for the current situation and to deal with the rapid growth of population and urbanization, the government of Cambodia has prepared the Land use master plan of Phnom Penh Capital 2035. The main objectives of the master plan are to develop Phnom Penh to become a core center for development, an international standard city, a reserve for the development of necessary physical infrastructure, a metropolitan city and a special area for cultural heritage. Fig. 2 shows the map of the land use master plan of Phnom Penh capital 2035.

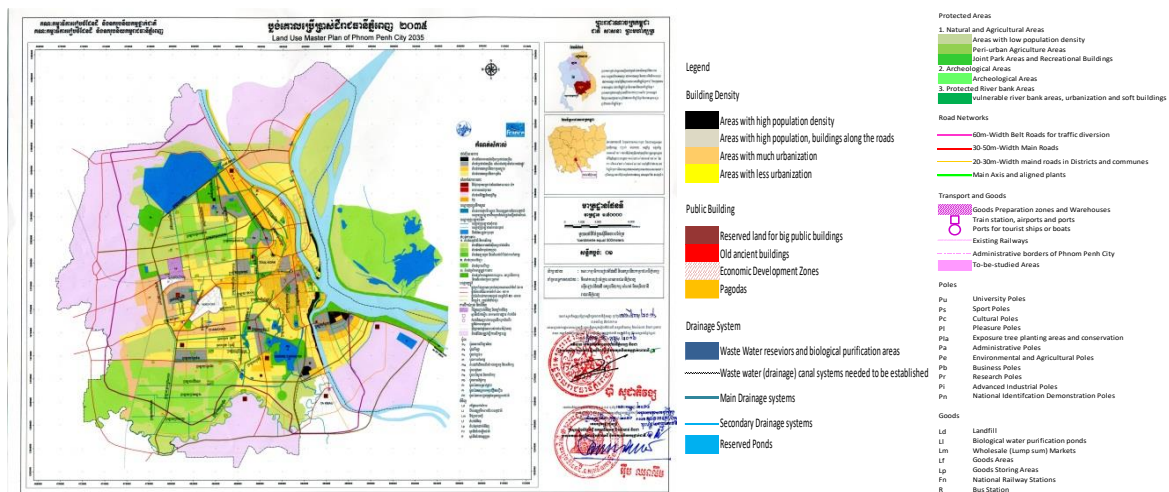


Fig. 2 Map of land use master plan of Phnom Penh capital 2035

Legend of the map was written in the Khmer language. The English-translated legend was provided next to the map. The second green symbol in the legend was used to indicate the space reserved for the peri-urban agriculture in Phnom Penh Capital.

In order to make the land use master plan realized and vitalized, the Phnom Penh sustainable city plan was designed to support the implementation of the Phnom Penh master plan for land use 2035. Fig. 3 shows the link between Land use master plan for Phnom Penh 2035 and the Phnom Penh sustainable city plan 2018-2030.

After obtaining the details of both the land use master plan and the Phnom Penh sustainable city plan, the study found that there is no clear explanation nor detail regarding the usage of reserved spaces for peri-urban agriculture as mentioned clearly in the map (referred to Fig. 2). Noticeably, there are also no details regarding the agricultural policies dealing with green spaces or space reserved for peri-urban agriculture in the land use master plan. In addition, the involvement of the Ministry of Agriculture, Forestry and Fisheries (MAFF) or other institutes is not mentioned nor indicated.

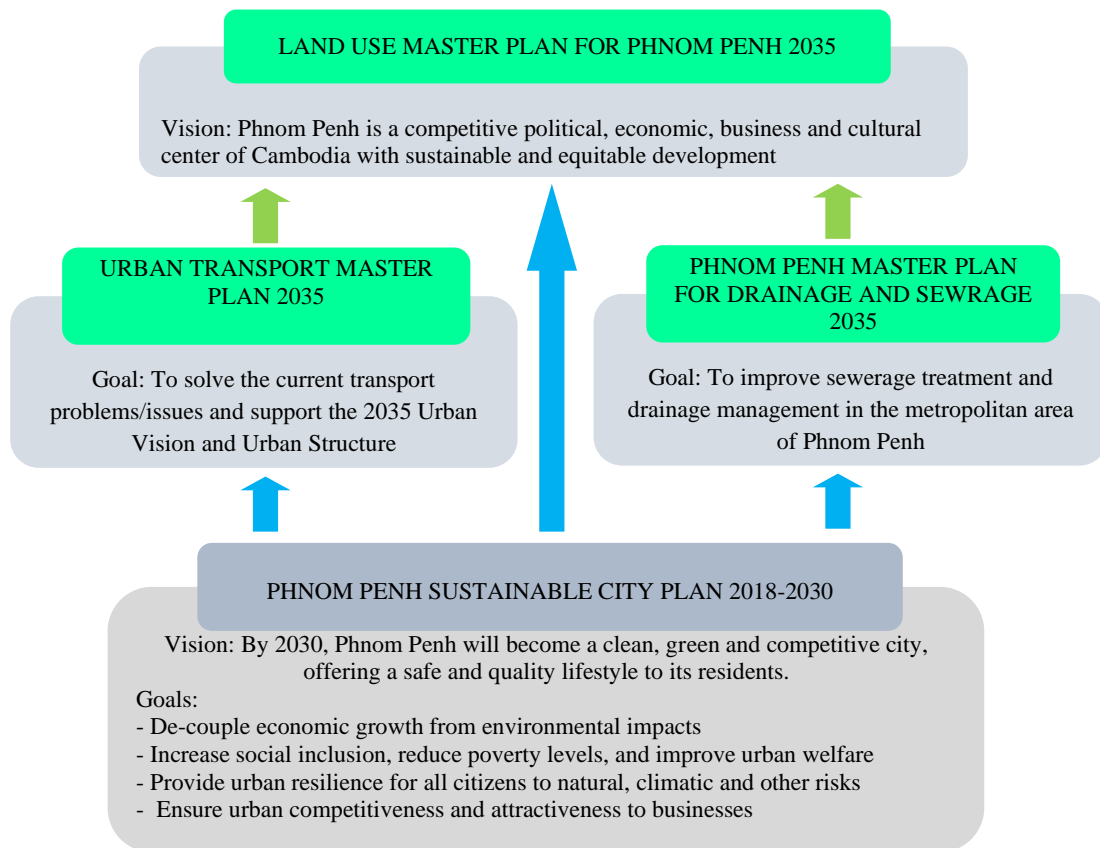


Fig. 3 Link between land use master plan for Phnom Penh 2035 and the Phnom Penh sustainable city plan 2018-2030

Source: Global Green Growth Institute (2019)

These challenges over the implementation of the master plan are a major concern. The World Bank also shares this concern over the lack of roles and responsibilities for the implementation of Master Plan, limited capacity and limited finance (World Bank Group, 2017).

Responding to the rapid growth of housing construction and other building complexes over the Phnom Penh Capital's areas, the World Bank also has raised this matter in the report (World Bank Group, 2017) and pointed out that this development in housing complex has neglected the Land use master plan; it seems that the real estate companies or construction companies do not follow the land use pattern that has been determined in the Master Plan. The housing complex projects have increased from 77 (Phnom Penh Capital Hall, 2011) to 178 projects in 2019 (The Phnom Penh Post, 2019).

Regarding the matter mentioned above, there is also a concern over the process on providing construction licenses to those real estate companies. All of these affect the land use pattern in Phnom Penh. It can be assumed that peri-urban agriculture has been affected by the rapid growth of urbanization and construction in the capital.

Urban Agricultural Policies

All agricultural policies and administration are under the responsibilities of and managed by MAFF. The overall goal of policy firmly focuses on increasing skills and knowledge, productivity, diversification, processing capacity, storage, distribution and marketing (Open Development Cambodia, 2016). Referred to the same source, the government has aimed for agribusiness to make up 30% of GDP (Gross Domestic Product) by 2025.

To achieve the goals or aims set by the government, there are several main agricultural policies established. Those policies are as follows:

- Cambodia Industrial Development Policy 2015-2025: This policy prioritizes the agricultural development as the key element. There are four prioritized developments to be achieved: development of the agro-industry, development of small and medium enterprises, development of transport and logistics, and development of skills training and worker development.
- Agricultural Extension Policy: The main goal of this policy is to ensure that knowledge and technology will be accessible to farming communities in order to increase the productivity.
- Crop-Specific Policy: This policy consists of other two main policies: Policy on the Promotion of Paddy Production and Rice Export; and Cambodia Natural Rubber Development Strategy 2011-2020.

There is no specific policy on urban and peri-urban agriculture in the capital; also data on agricultural activities is very limited. It can be assumed that the government has turned their attention to other main sectors that are currently growing very fast in the capital. However, there are some newly developed recreational places or resorts run by private sectors. Those activities include the growing of organic vegetables and fruit. The details will be explained below.

Urban and Peri-Urban Agricultural Activities

Urbanization and economic development in the capital have caused lifestyle changes. People living in the capital spend their weekends with family at private resorts or recreational places on the outskirts of the capital. Those resorts normally serve food and sell organic vegetables grown by them.

One of the popular places in this sector in Phnom Penh is Amarak Farm also known as Amarak Veggie Store, established in 2008, located at Koh Krobey Village, Prekthey Commune, Chbar Ampoeu District. It is about a one-hour drive by car from central Phnom Penh.

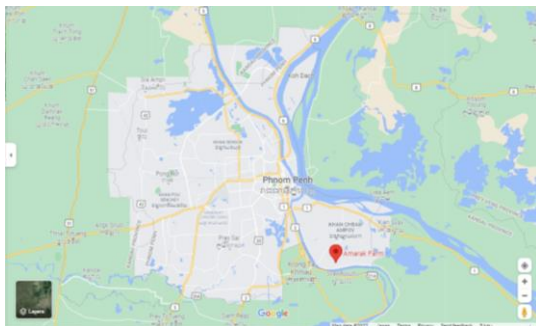


Fig. 4 Location of Amarak Farm

Source: www.amarakfarm.com; and www.google.com/map



Fig. 5 Vegetable cultivation at the farm

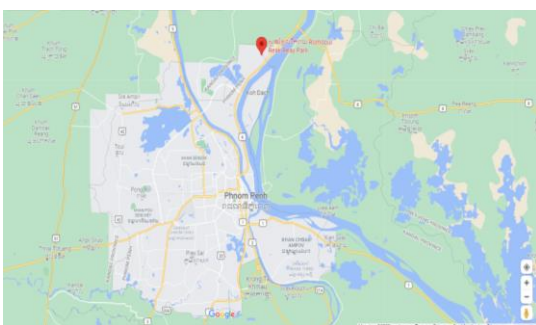


Fig. 6 Location of Romdoul Reak Reay Farm



Fig. 7 Vegetable cultivation at the farm

Source: https://www.facebook.com/romdoulreakreay/photos/?ref=page_internal; and www.google.com/map

Based on the information on its homepage (www.amarakfarm.com), Amarak Veggie Store grows various kinds of salad and lettuce, herbs and fruits. The harvest is sent to local markets in Phnom Penh to sell as fresh and organic products. Besides, the vegetable production, Amarak

Veggie Store also provides other activities including camping, meeting places (or retreat centers), wedding receptions, picnics and other outdoor activities because this farm occupies a large area.

Going far to the Northern part of the capital, there is another resort called Romdoul Reak Reay Farm located in Chraoy Chongvar District. This farm occupies a large area, serves the food and grows various vegetables to sell at their place. This farm started a few years ago before the pandemic. However, they have extended their activities and diversified the farm.

Urban and peri-urban agricultural practice is active in the capital. Currently, there are many newly developed resorts or farms. However, there is no official data recorded about these activities.

CONCLUSION

During this transitional development of Phnom Penh due to rapid population growth and urbanization, Phnom Penh has expanded, and the construction of housing complexes and other buildings has increased. The government needs to pay more attention to implementing the plan to make the Land use master plan of Phnom Penh vitalized. Even data on urban and peri-urban agriculture in the capital is limited. Peri-urban agriculture in Phnom Penh Capital has been actively practiced as part of resort activities in the outer or outskirts districts. From this viewpoint, without proper implementation of the Land use master plan and management of the development of construction, reserved spaces for peri-urban agriculture in Phnom Penh capital will be affected.

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