

## URBAN GROWTH OF TAUNGOO

Naw Paw Thaw Thaw<sup>1</sup>, Win Myint Oo<sup>2</sup>, Moe Moe<sup>3</sup>

### Abstract

The population of Taungoo increased constantly. In the study area, the growth of population is caused by natural increase and the migration from nearby areas. In the present days urbanization is more quickly developed due to the immigrants from the area of countryside because of more incentive and more opportunities in urban area than that of the countryside. In this way, the number of population increased and urban area extended year by year and also the uses of land are changed. The objectives are to present the area growth of Taungoo, to investigate the supporting factors that cause urban growth of Taungoo and to predict future prospect of Taungoo. Urban area extension was caused by physical, social, economic factors and government policy. To present this paper primary and secondary data were applied. Primary data such as field observation and informal talks with native people and the responsible persons are conducted. Secondary data obtained from the respective departments.

**Keywords:** *urban, area growth, population growth, land use, government policy*

### Introduction

Urban growth is an increase in the urbanized land cover. Urban growth is also defined as the rate at which the population of an urban area increases. This results from urbanization which is the movement of people from rural areas to urban areas. Urban growth may lead to an increase in economic development of a country. Urban growth is also referred to the expansion of a metropolitan or suburban area into the surrounding environment. It can be considered as an indicator of the state of a country's economic condition as the effect of urban growth directly impacts the country's economic development. The more the urban area grows the more employment it generates and in this way economic growth also takes place (Planning Tank, (2013)).

Urbanization has occurred within the context of rapidly increasing size of populations. Not only are urban areas growing faster than rural areas (urbanization) but the overall numbers of persons living in urban areas (urban growth) are increasing dramatically (UN, 2001).

The extension of urban areas offers benefits, allowing people more living space, single-family houses and gardens. As big cities grow in size and expand, they take up more and more land. As this happen, land is taken up in more than one way. Urban extension can be expressed in two ways, (1) horizontal extension and (2) vertical extension. In the first extension, land around the cities is gradually taken up and developed. In the second, more and more higher rise buildings are constructed.

In the former days, although Taungoo was square in shape, due to the extension of new wards and some wards area, the shape of the study area was changed into Pan Handle. Horizontal extension is especially distinct along the main road, railway road and some streets. Change in land use of Taungoo was resulted not only from the growth of the city caused by population growth but also from social and economic development. Urban land use of Taungoo has changed

---

<sup>1</sup> Dr, Associate Professor, Department of Geography, Kyaukse University

<sup>2</sup> Dr, Professor and Head, Department of Geography, Taungoo University

<sup>3</sup> Lecturer, Department of Geography, Yangon University of Education

notably in the recent years owing to the development in economic activities, the growth of population and improvement in transportation network.

Therefore, to present urban growth caused by physical factors, human factors, government policy, etc from the geographical point view, Taungoo was selected as study area.

**Aim and Objectives**

The main aim of this research paper is to explore the urban growth of Taungoo.

The objectives of this research are;

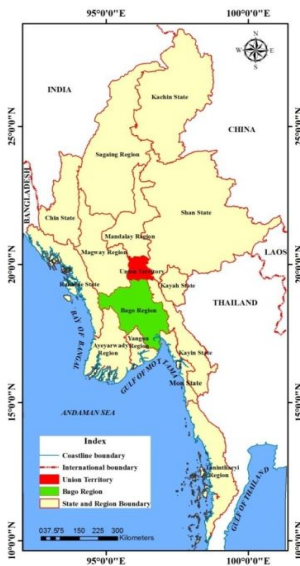
- to present the area growth of Taungoo
- to investigate the supporting factors that cause urban growth of Taungoo and
- to predict future prospect of Taungoo

**Source of Data and Methodology**

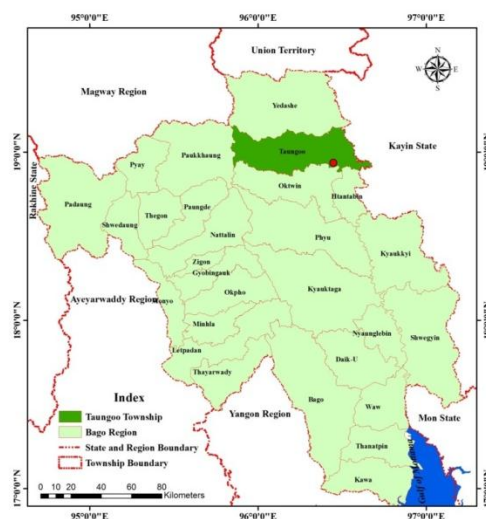
Primary data were collected through field survey and structured interviews with the local people and the authorized persons of the department concerned. Secondary data obtained from the various department concerned were mainly applied in this paper.

**Study Area**

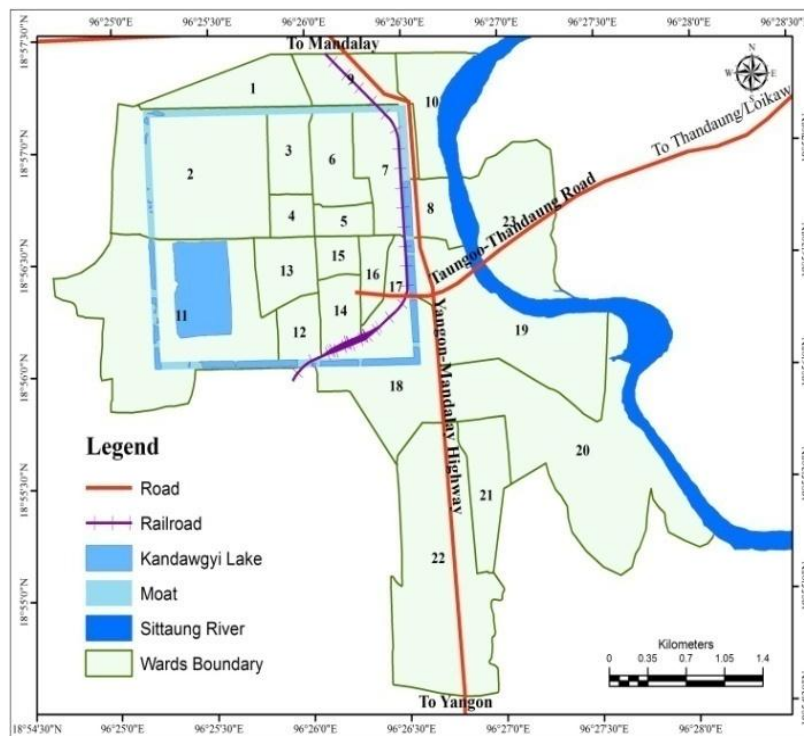
Taungoo is situated in the south-eastern part of Taungoo Township, Bago Region. It is located at the western bank of the Sittaung River and lies on the Yangon-Mandalay main road and rail road. Astronomically, it extends between north latitudes 18°54'30" and 18°57'29" and between east longitudes 96°24'40" and 96°28'10". It has an area of 13.31 square kilometre (5.14 square miles) and composed of 23 wards. Taungoo is bounded in the north by Kanyoe Village Tract, in the east by Sittaung River, in the south by Shansugyi Village Tract and Kinseik Village Tract and in the west by Lebu Village Tract (Figure 1, 2, 3 & Table 1).



Source: Myanmar Information Management Unit  
**Figure 1** Location of Bago Region in Myanmar



Source: Myanmar Information Management Unit (MIMU)  
**Figure 2** Location of Taungoo Township in Bago Region



Source: Department of Agricultural Land Management and Statistics, Taungoo

**Figure 3** Wards Composition of Taungoo

**Table 1** Ward Composition of Taungoo

Ward No.	Name	Area (sq. km)	Ward No.	Name	Area (sq. km)
1	Htihlaing	0.39	13	Mannyat	0.21
2	Rakhinesu	1.32	14	Zaytanyat	0.13
3	Yodayartan	0.23	15	Lanmakyeyat	0.18
4	Kyattayat	0.18	16	Zaygyi	0.23
5	Panpetan (S)	0.18	17	Taungkweizay	0.08
6	Panpetan (N)	0.23	18	Ngwehlan	0.93
7	Shantan	0.41	19	Tatmyay	1.22
8	Ohkkyuttan (S)	0.18	20	Myogyi	2.12
9	Ohkkyuttan (N)	0.44	21	Zayarkhinoo	0.44
10	Ohkkyuttan (E)	0.44	22	Mingyinyo	1.17
11	Kandawyat	1.61	23	Chinthaeoo	0.78
12	Zaungchantaung	0.21		<b>Total</b>	<b>13.31</b>

Source: Department of Agricultural Land Management and Statistics, Taungoo

## Results and Findings

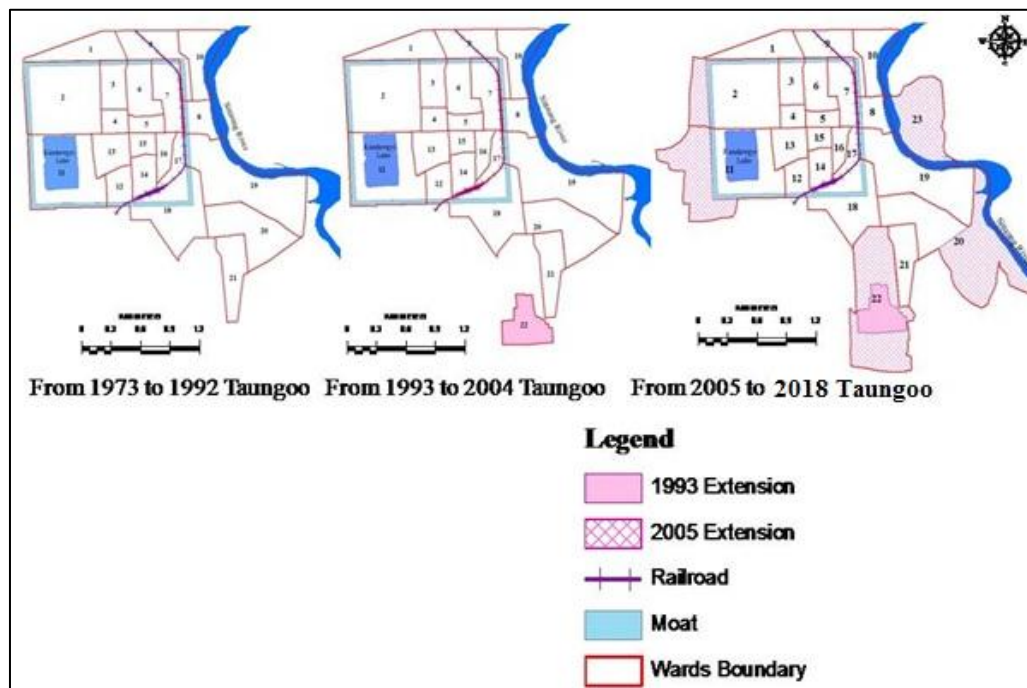
### Urban Growth of Taungoo

Taungoo was built since AD 1510 by King Mingyinyo. It was nearly square shape and the area was 4.45 square kilometer (1100 acres). Due to the increasing population, the settlement areas have been extending, east, south, southwest and west.

In 1973, Taungoo had an area of 9.71 square kilometre (3.75 square miles) with 21 wards. In 1993, Mingyinyo (Ward No.22) was formed by the Government for the settlement of government servants in the southern part of the town as the extension ward along the Yangon-Mandalay Road. Hence, the area extension of Taungoo is found especially along the Yangon-Mandalay Road. The total area was 10.05 square kilometres (3.88 square miles) with 22 wards in this period.

In 2005, Mingyinyo (Ward number 22) was further extended from some parts of Putsu and Zeadaing village tracts. In addition, some parts of the Moekaung Village Tract which was situated in the eastern part of the Sittaung River became the new ward called Chinthaeoo Ward (Ward No. 23). Some of these wards are especially sharing for government servants and the rest are for the physical handicapped soldiers, and the residential dwellers in Ward No.19. In the western part of the town, Shwehinthar Village which is included in the Lebu Village Tract was added in Rakhine Su (Ward No.2) and some parts of Kyuntawkone Village within the Kinseik Village Tract were added in Kandawyat (Ward No.11) in the southwest. Besides, the area 0.91 square kilometres (224 acres) from the Putsu Village Tract was added into the Myogyi Ward Figure (4). The development of road and rail transportation causes urban expansion of Taungoo.

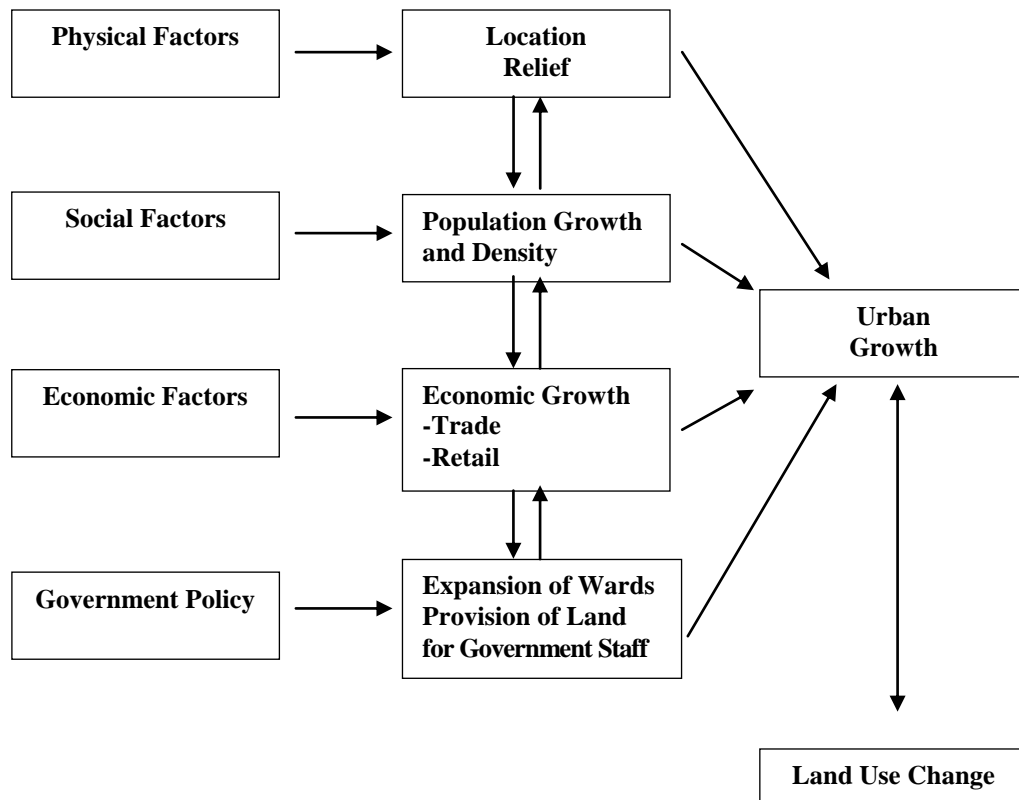
At present, the area of Taungoo became 13.31 square kilometres (5.14 square miles) and is composed of 23 wards. Among them Ward No. 20 was the largest with an area of 2.12 square kilometre (0.82 square miles) and Ward No. 17 was the smallest with an area of 0.08 square kilometre (0.03 square miles).



Source: Department of Agricultural Land Management and Statistics, Taungoo

**Figure 4** Urban Growth of Taungoo (from 1973 to 1992, from 1993 to 2004 and from (2005 to 2018)

Factors affecting urban growth of Taungoo are physical, social, economic factors and government policy. There are also linkages between them. Major linkages are found in physical, population growth, economic and government policy and urban area extension.



### Conceptual Framework, Urban Growth of Taungoo

#### Factors affecting Urban Growth of Taungoo

There are many factors that support and encourage the urban area extension of Taungoo. They are physical factors, social factors, economic factors and government policy.

#### Physical Factors

Location of Taungoo is one of the major factors for urban growth and it lies on Yangon-Mandalay Highway Road. It is also accessible area because of Yangon-Mandalay Road and railroad

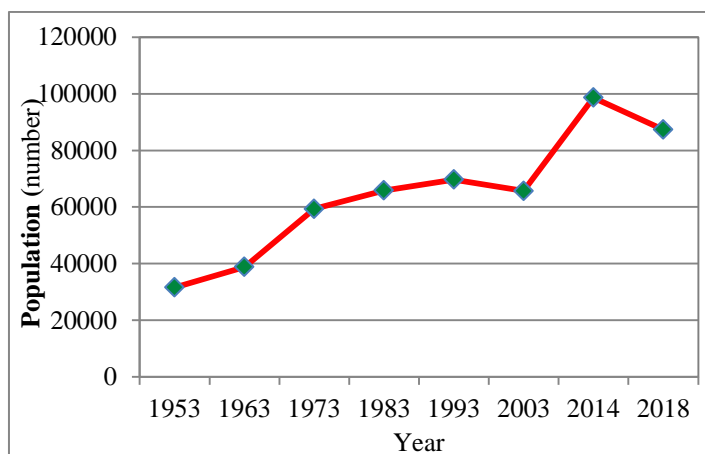
Physical factors particularly relief plays a significant role in the urban area extension of Taungoo. The study area is located in the northern part of Bago Region, on the Sittaung Valley. The elevation of the town is below 200 feet above sea level. Hence, it has also nearly flat plain relief, but much lower from west to east toward the Sittaung River. Due to its location and nearly flat plain it is suitable for urban area extension.

#### Population Growth

According to the population census taken in 1973, there were 21 wards with the population of 59,352 and the growth rate was 4.34. The population census was taken again in 1983 and the population of Taungoo was 65,861 and the growth rate was 1.05. In 1993, the

population of Taungoo was 69,682 and the population growth rate was 0.57. The population growth of Taungoo is mainly caused by the natural increase and migration.

In 2003, the population growth rate was (-0.59), the population of Taungoo was decreased due to people who moved to other cities to get more opportunities. In 2014, the annual growth rate increased to 3.76 because the people of the neighbouring areas migrated into Taungoo. In 2018, the population of Taungoo decreased to 87,321 with the growth rate -2.99 due to outmigration to more developed areas for better job opportunities, higher education and higher income. Figure (5)

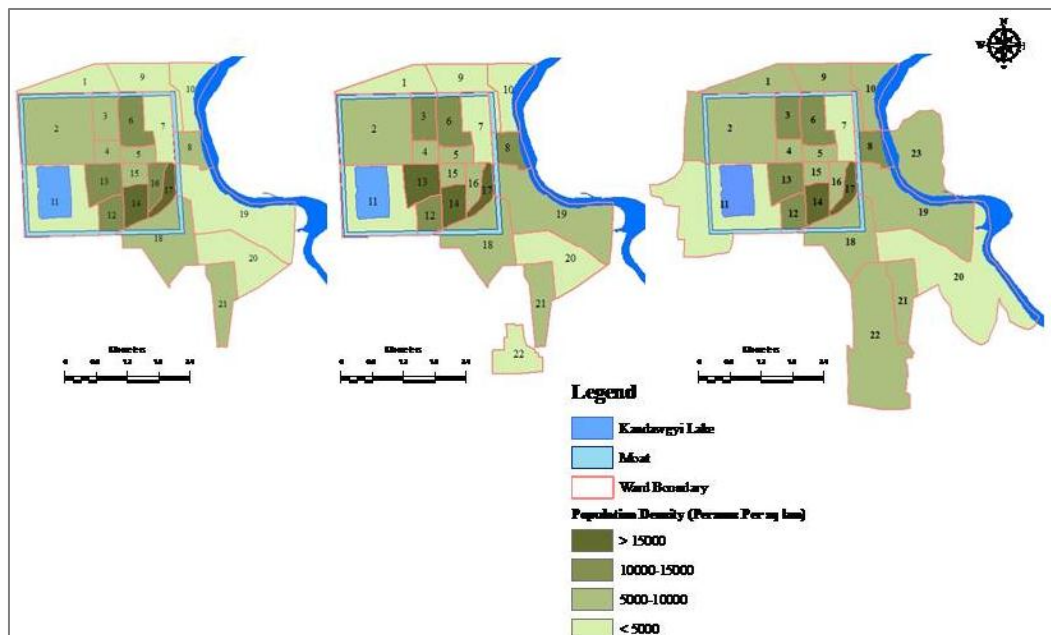


Source: Population and National Registration Department of Taungoo Township

Figure 5 Population Growth of Taungoo

### Population Density

The pressure of people on land can be expressed in terms of population density.



Source: Population and National Registration Department of Taungoo Township

Figure 6 Population Density by Wards of Taungoo in 1973, 1993 and 2018

The population density varies with changes in the number of population and also changes in the area. Population density by wards in 1973, 1993 and 2018 are shown in Figure (6). Although Ward No.14, 17 are the narrowest areas, the density of population increased because these wards are situated within the downtown areas.

### **Economic Growth**

Four economic sectors are found in Taungoo. It is formed as a trade centre for nearby towns and villages. Before 1988, the economy of Taungoo mainly depends on agricultural and trading activities. When the government adopted market oriented economic policy, the economy of Taungoo has been more developed. Among the four economic sectors, secondary and tertiary economic activities are more developed and more concentrated in the downtown area of Taungoo and relatively scattered in elsewhere. Growth in commercial activities reveals the increase in the number of consumers and higher demand.

After the opening of Taungoo University, University of Technology, Computer University, commercial activities especially retailing shops such as handset and phone accessories shops, stationary stores, shoes and slipper shops stores, grocery shops etc. are more developed and more distributed in the area of downtown and along the Bohmu Phokun, Merchant, Zay and Kan road. Moreover in densely populated areas where transportation is more accessible shopping centre as Win Mart are developed. Due to the construction of new Yangon-Mandalay Highway Road, accessibility is better than before and the increasing population enhances the economic growth of Taungoo.

Myoma Market, Bayintnaung Market and brokerage centre etc. serve as whole sale as well as retail centre collecting and distributing goods to nearby areas. Myoma Market is the largest and the whole day market. Various kinds of household goods and consumer goods can be available. Bayintnaung Market supplies agricultural produces, varieties of vegetables, fish, meat and other goods. Being located on good accessible areas, people of nearby regions heavily depended on these markets and brokerage centre are lead to economic growth of Taungoo. The improvement in transportation facilitates the flow of commodities and economic growth of the area forces to expand urban area of Taungoo.

### **Government policy**

Government policy is one of the most important factors that cause the urban area extension in Taungoo. Government policy plays crucial role in establishing urban residential area and construction the new roads and upgrading the old roads. To get better and effective administration, security management and easy accessibility the government redemarcated the boundary of the area.

In 1993, the government transformed agriculture land to urban residential area for government servant of the various departments to possess their housing. Similarly, in the southern, western and southwestern part of rural areas were transformed as ward including in Taungoo in 2005. The conversion of rural to urban areas is for upgrading the living standard of rural population, getting better security, management and accessibility.

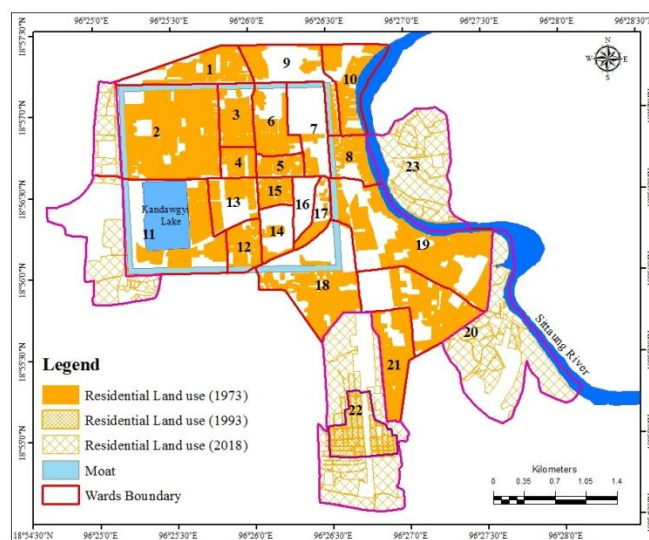
### **Land use Changes of Taungoo**

Land uses are dynamic in time and space is indisputable (Mannion, 2002). Like other places of Myanmar, land use changes take place in Taungoo. The changes in land use unveil the

change in regional development. Extension in residential areas, construction and renovating urban infrastructure and government policy are responsible for land use changes.

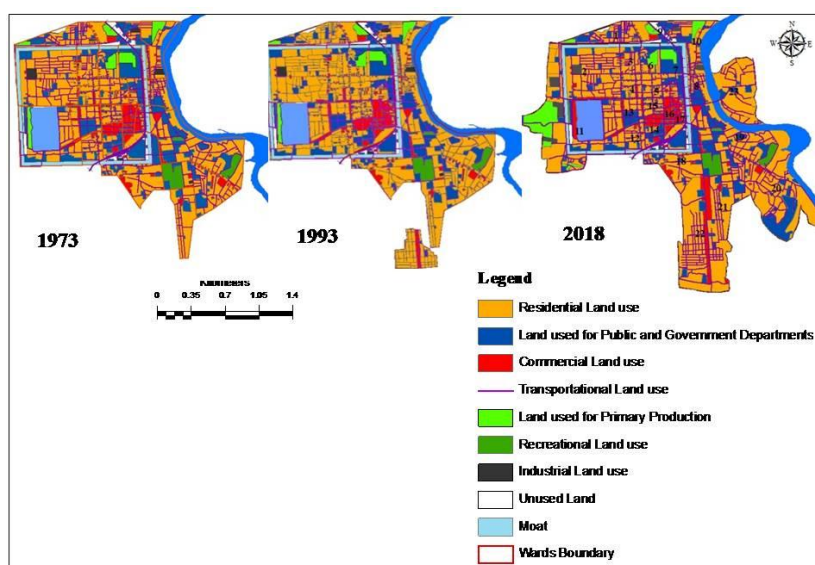
Urban expansion of Taungoo is mainly occupied by residential areas and then followed by commercial land. In 1973, the area under residential was 4.59 square kilometres (1.77 square miles). In 1993, the residential area rose to 4.88 square kilometres (1.88 square miles). This is due to agricultural lands of the southern part of the town were transformed into residential area. In 2018, the area of residential land was 7.04 square kilometres (2.72 square miles). This is owing to rural areas which is adjacent to town boundary lies in the eastern part were added into the town. Similarly, some of the rural areas at the western part are included in town area. After the establishment of education centre as Taungoo University, most of the types of land use change into commercial land use especially along the Bohmu Phokhun Road.

As a result, urban growth causes land use change (Figure 7 and 8).



**Source:** Department of Agricultural Land Management and Statistics, Taungoo and Field Survey

**Figure 7** Changes in Residential Land Use of Taungoo



**Source:** Department of Agricultural Land Management and Statistics, Taungoo and Field Survey

**Figure 8** Changes in Urban Land Use of Taungoo



## Conclusion

Taungoo possesses locational advantage as it is located on the Yangon-Mandalay Road and railroad. Like other areas of Myanmar, population increased in the study area. The increasing populations are natural increase and migration from other areas.

Economic growth is a key factor that attracts immigrants from rural areas. Therefore, people from nearby towns and villages migrate into Taungoo for better job opportunity, higher income and accessibility.

Government policy plays a key role in urban area extension. Like other places, a new ward was established and some of the rural areas were transformed as ward included in the town. Urban area extension was made to allocate people and to get systematic urban appearance. Due to area extension and population growths, the types of land use are also change. Most of the extension areas were mainly occupied by residential and commercial land. By building systematic urban area and land use changes supporting area development, Taungoo will be more systematic.

In the future, urban extension will be more prominent due to better accessibility, job opportunity, economic growth and government policy. Further researches on waste problem, transportation, economic opportunities, etc should be done to lessen the problems caused by urbanization and population growth.

## Acknowledgement

We would like to extend our thanks to all our teachers for their guidance and to our friends for their help in doing research work.

## References

- Abdelkader El Garouani&etal, (2016): **Analysis of Urban Growth and Sprawl from Remote Sensing Data**: Case of Fez, Morocco, International Published, (Journal of Sustainable Built Environment (2017) 6, 160–169)
- Aung Kyaw and Yin Myint, (2011): **Geographical Study on Urban Heritage of Taungoo City**. Ministry of Education, Department of Higher Education, Dagon University.
- Hnin Wint Yee, Ma (2015): **A Geographical Analysis on Urban Land Use of Taungoo**. Unpublished M.A: Thesis submitted to Department of Geography, Taungoo University.
- Kyi Kyi Mya (2009): **Geographical Analysis on Economic Development of Taungoo City**. Preliminary Paper, Unpublished, Department of Geography, University of Yangon.
- Kyi, U. & etal., (2003): **A Geographical Analysis on Urbanization in Pyay**.
- Mannion. A. M, (2002): **Dynamic World, Land-cover and Land-use change**, Oxford University Press Inc., New York.
- Maung Maung Aye, Prof & Sandar Hlaing (2005): **A Geographical Examination on the Urbanization Processes of Taungoo Town, Bago Division**. Published, Department of Geography, Dagon University.
- Planning Tank, (2013) What is urban Growth (<http://planningtank.com/urbanization/what-is-urban-growth>)
- Thin Thin Khaing & et.al, (2007): **Spatio-Temporal Development of Retail Shops along the BohmuPhokun and Taungoo University Roads**. Published, Vol.8, (2008), MAAS Journal.
- Thin Thin Khaing, Ma (2005): **An Analysis of Poor Drainage System and Flood Frequency during the Rainy Season in Taungoo**. Unpublished M.Res: Thesis Submitted to Department of Geography, University of Yangon.
- United Nation (2011): Components urban Growth in Developing, Population Division Department of Economic and Social Affairs United Nation Secretarist. ESAJPMrP 169