Abstract - East Yangon District is located in Yangon City, the capital city in Myanmar. East Yangon District has many new townships. The study is based on these new townships because they have many open spaces and a little far from the centre of the city. Definition for slum has been defined by many scholars. In this research, the researcher uses the definition of UN-Habitat, 2003. Slums are people living under substandard conditions and squalor. Many homeless people settle here. These new townships have industrial zones. As a consequence, industrial labour from many regions come and work here and then stayed as informal settlers near these industrial zones. The existence of informal settlements is the most common in cities in developing countries. It is the process of urbanization through rural to urban migration and urban to urban migration. Today, cities have to face many challenges – living in not enough space, lacking basic infrastructure, deterioration in the environmental landscape and causing health problems to the surrounding community. However, homeless people are cheap labours for urban community and large labour market for industrial zones. This paper aims to examine the emergence of slum which is shaping the social challenges. We have identified the controlling factors to the emergence and growth of slums: lack of education, population dynamics, housing market dynamics, changing policy and climate change. It needs to develop effective city governance to support housing properly and to improve the capacities of slums.

Index Terms: slum, urbanization, dynamic, capacity

1. INTRODUCTION

This paper examines the emergence of informal settlements in urban area. In Myanmar, over 70% of population lives in rural areas. Many people in rural areas move to urban because of harder to find jobs and low income in rural, and many job opportunities, better education, better healthcare service in urban area. The more the urbanization is, the more increasing the slum settlement is. Most people move to slum areas without buying the land and house, and construct the huts in open spaces and uninhabited land. They are known as the slums.

Dagon Myothit four townships have 29306 number of slum households. Among them, Dagon Myothit (Seikkan) Township, which is located near Bago River and centre of Yangon City, has the highest number of slum households, 53% of the total households. In Ward 67 of Dagon Myothit (Seikkan) Township nearly all housing units are slum settlements. Likewise, other townships also have many slum settlements. These residents live in inadequate shelter, poor sanitation, water, insufficient environment to healthcare.

Governments need to solve and enhance the quality of life of the poor in urban informal settlement areas. Large slums usually occupy the open spaces in urban area such as dumping ground, farm land, gardens, near public offices, along the sides of railway line and gas pipe line, outer most part of the residential areas. This paper constitutes five parts. First, geographical and historical background, and research background of the Study Area, Second, the characteristics of slum settlements, Third, controlling factors which determine the emergence and growth of slums, Fourth, researchers apply this framework to discuss the existing literature with a focus on emergence and growth of slum and Finally, researchers will suggest the officials to the challenges of slum dwellers.
August 1994 according to the order of Ministry of Home Affairs. General Administration Department of Dagon Myothit (East) was opened in September 1994. Dagon Myothit (South) in November 1990 and Dagon Myothit (Seikkan) August 1994.

2) Research Background

Yangon City has four districts. Among them East Yangon District has lower population density than North Yangon District (Figure 1). The former has a chance to be slum populated area. There are 441646 slums and 117079 slum households in Yangon City in 2016 (Table 1). East Yangon District has the second largest number of slum dwellers as it has many cheap labours for industrial zones. For this reason, East Yangon District was selected as the study area. This research investigates controlling factors determining the emergence and growth of slums.

Yangon City has many slum settlers especially in New Towns such as Dagon Myothit (North), Dagon Myothit (South), Dagon Myothit (East), Dagon Myothit (Seikkan) and Hlaingtharyar etc.

![Figure 1: Population Density of Yangon Region including Dagon Myothit Townships and its neighbouring.](image)

Source: Population Census in 2014

Note: The northern, eastern and western parts of the study area are populated areas which are also new towns and have industrial zones.

Second, this paper explains the characteristics of slum settlements and primary data is collected from Dagon Myothit townships in East Yangon District in 2017 and 2018 by using the structured questionnaire.

The existence of informal settlements is the most common in cities. Slums have been in existence since the times of the towns. Although new townships have many wards to settle, there is no settlement in some wards. Informal settlement is usually found in wards and villages where people settle. Urban areas have more slum dwellers than that of rural. In Urban areas, slum settlement is mostly in uninhabited land along Ngamoeyeik Creek, Bagon River, No (2) Road, Minyekyawswa Road and near industrial zones (Figure 2).

<table>
<thead>
<tr>
<th>District</th>
<th>The Number of Slums</th>
<th>Households</th>
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![Table 1 The number of Slums and Households in Yangon Region](table)

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IV. STUDIES AND FINDINGS

1) Social challenges

Living in not enough space

Slums have to live in not enough space. Most of them live in the area of 100 sq.ft and 200 sq. ft. There are 4 to 8 family members in a house. Some houses have 3 households. The living space of 46% of slum dwellers is under 200 sq.ft. Some are 100 sq. ft. 48% is under 400 sq.ft, and 4% is under 800 sq.ft
In slum settlement, there is a lack of basic public services. They do not get the water distributed from Yangon City Development Committee and also electricity for both house and street lighting. The street is unpaved, and wet and flooded in the raining season. Their income and expenditure is balance for they have to spend all basic needs such as 400 (MMK) for 1 barrel of water that cannot drink. Drinking water is 500 (MMK) for a bottle. For one light bulb between 6:30 to 10 pm is 100 (MMK). They have no extra money to repair the house and have to stay in a small space, dirty and a weak foundation.

2) Deterioration in the environmental landscape

Slums represent disadvantaged communities continuing to have the impact on environmental landscapes. The vast majority of the slum are located in the compound of a university because it is located outskirt of the city and very large compound and has many open spaces. Informal settlement is usually found along main roads, gas pipe lines and the boundary of the wards. Most of the growth in slum populations occurs in the new townships where the slums make significantly less income. The majority of the population has to live in small huts – 100 sq.ft or under 200 sq.ft and the roof is corrugated iron or bamboo, the wall is bamboo or old plastic bag and the floor is bamboo or a small piece of wood that they collect somewhere. They live improper housing that have direct impacts on their residents and its surrounding. This accords with the finding of Napier (2007).

Causing health problems to the surrounding community
Due to lack of basic services resulting in contaminated soil and polluted air and waterway – they dispose the garbage beside and under their house, and near or inside the Ngamoeeyik creek, Bago River located behind their houses. Whether it is raining or dry season, their household waste materials are found elsewhere on the ground near their surroundings. This situation is worse in wet season as wastes block the drain. These make the environment deteriorated and health problems, which extend to communities beyond the slums, e.g, flooding. Therefore, the expansion of slums can threaten urban development. This finding is concurrence of opinion of Patel, 2012.

**Cheap labours for urban community**

Educational background of slums is basic and there are no high school educations. They have no capital, are low wage employees, work on odd-jobs. There are many adult and young people who did not finish the school. There are many young people under the age of 14 and no educated ones. It is need to continue to study for the children and to learn the work for earn money for the adult and youth.

The slum population is increasing between the age of 30 and 49 which is the working age. They are cheap labours for industrial zones. The age between 5 and 24 is the highest percentage and they help their family to earn money. There are few people between 60 and above. Therefore, it is found that most migrated people are new couples and young couples, and few older couples (Figure 3). All the above mentioned reasons explain that slum dwellers are cheap labours for urban community.
3) Emergence and Growth of Slums

Third, the paper proposes controlling factors for the emergence and growth of slums; how slums grow and evolve over time.

**Hypotheses**

- Emergence and Growth of slum depend on having open spaces in urban areas, the access to the centre of the city, many job opportunities, better education, rising housing rent and housing market dynamics in urban area
- Qualitative method is used to analyse the responsible factors for the emergence and growth of slum settlement. The study is based on three periods such as slum started year before 2000, 2001 to 2010 and 2011 to 2018, field survey conducted year.

Fifteen percent of the slum settlement is found in the first period, 17% in between 2000 and 2010 and 68% between 2011 and 2018. The researcher wanted to know why the percentage of slum dwellers is increasing before 2000 to the present, 2018.

People who settled as slums **before 2000** came from various places. They migrated from Thaketa, Hlaingtharyar, Shwepyithar, Thanlyin, Ayeyarwady Region (Hintada, Bogalay and Ngaputaw), Figure 4 and Figure 5.

Migration pattern is rural to urban migration and urban to urban migration. Some did not migrate here. They are host villagers, but their lands were taken by the governments to establish new wards in Yangon City. This is the consequence of the expansion of urban area which towards its country-side that surrounds it. The rich and real estate speculators have bought the plot of lands, which are extended area of country-side. They are not end-users and they buy and sell real estate assets to make profits. So, these plots of lands are open spaces and homeless people come and stay here by constructing the small huts.

Why they become homeless people are that the former place is difficult in transport and have to go to bus stand by cycle and motor cycle, cannot afford high rent, want to change the job; to raise poultry in this wide area. Some people visit to Yangon, but in Yangon many job opportunities and so, come and settle here. Some people come and settle here after the marriage. So, they are new households, which have school children.

Some were farmers and their farm land were taken over by the government and have to move to another place and then resettled here as slums. Some are guards in the compound, but the landowner sold the compound and the guards have become jobless and then he settled here as slum dweller.

Ko Than Phay who live in Dagon Myothit (Seikkan) Township said that “this ward 89 is Sinchayyar village, I was born here and lived since 1970, but the village was designated as ward by the government. So, we have no place to live in our native land.”

U San who live in Dagon Myothit (North) also said that “the ward 33 is Thapyay garden where we live since 1999; we have own house here, but the government does not give back our farm land. So, we have to stay as informal settlers”

As government’s support, government gives Smart card them in 2017 and many people have it now, but natives do not accept it because they are land owners. Another support is that Yangon City Development Committee comes and distributes water if water shortage in May.

**Between 2000 and 2010**, slum settlement increases to 17%. They migrated especially from townships in Yangon City such as Thaketa, Thinkankyun, Mingaladon, North Okkalapa, Bago, Ayeyarwady and Sagaing Region.

The migration patterns are from rural to urban migration and urban to urban migration. Slums who came from Ayeyarwady Region are mostly from Laputta Township because of the occurrence of natural disaster, Cyclone Nagic in 2008. People who migrated within this period are not native ones. They are mostly from the wards of Dagon Myothit Townships.
Ma Sandar, stays in slum area of Dagon Myothit South and husband is a bricklayer, said that “I stayed in Thapyaychaung in Laputta Township, Ayeyarwady Region before 2008. I only survive when Nargic Storm strikes our village. After Nargi I have no house and no relatives, and move to Pathein and then to Yangon in 2012.”

There are many reasons to move here. Monastery from this Township informed them to settle here. Some transferred here because of the nature of the job such as working in construction side, some did to find the jobs, some the high rent in the former place. Another reason is that it is hard to find job, the land owner sold out the land, some do not like the job, choosing fish in fishing company.

On the other hand, the reasons people migrate from rural to urban areas are that the land here is cheaper than the land in the wards, it has many open spaces, new couples who have no own house come and stay here, some live in rural and they come to Yangon City to finish the school and to get the job.

As government officials’ support, they gave smart cards, distributed basic grocery items in Nargic cyclone broken out in May 2008. Their future expectation is to have own house, to get better job, children to be educated, not to move and just to continue to stay here.

Figure 4: The Migration of People to Four Dagon Myothit Townships from Other Townships within Yangon Region

Source: Field survey in 2018

Note: Migration of people from the lowest, Insein, Hlegu, Hmawbi, Kahyan and Thonekhwa to the highest, North Okkalapa, Thaketa and South Okkalapa Townships

After 2011, the most immigrants are from Neighbouring Townships, such as Thaketa, North Okkalapa and South Okkalaps, and from the other wards and/or the same wards within the same townships, Dagon Myothit Seikkan and South townships. People who settled as slums after 2011 came from various places. They migrated from Kyimyindaing, Dawbon, Thinkankyun, Thuwana located in Yangon Region, Rakhine and Mon States, Ayeyarwady, Magway and Bago regions.

Migration pattern is rural to urban and urban to urban migration, mostly from the same urban areas. Some homeless people are native villagers, ward 33 was Toekyaugkalay village.

The reasons people migrate from rural to urban areas are that getting information from the friends and monks in this township to stay as slums. At first, they have to pay the rent to the head of the Ward Kyat 15,000 for 6 months as a donation to the Ward. However, they do not need to pay later and become slums.

The reasons why people become slum dwellers are that they migrate from urban to urban areas, and they cannot afford the high rent in townships near the city. Other reasons are that their jobs locate in Dagon Myothit Township, and the price of the land is cheaper 20 times than that of the wards. Here the price is 2L or 3L, some places are available to live free of charge by occupying the open spaces or sharing by relatives or friends.

A woman who is 60 years old and live in Dagon Myothit (South) said that “when I arrive here in 2015, this place is open space and the land is wet, and no people lives here so I occupy and construct the house.”

A man who is 73 years old and live in Dagon Myothit (South) said that “I have a house in Thaketa Township that is not far from the city. Later, I was it on mortgage because of bad economy and lose it. So, I buy the land here, the cost is MMK 3.5 Lakh. It is so cheap and I can afford.”

Kay Thwe Myo Chit who live in Dagon Myothit (Seikkan) and is 32 years old and attended basic education, said that “we have six family members, 2 adults and 4 children, we have to spend much for schooling and the house rent and we cannot afford to rent in the ward 22 in Dagon Myothit (South), the rent price is 30000 Kyats per month. So, we construct the house here by cutting and burning this inhabited land.
Government supports to them a few basic grocery items in Nargic, medicines for health of children and spraying insect killer. Government also gives smart cards in 2017. Over 60% of the slum dwellers get the card. Future expectation is that they want to own a real estate, a permanent job, and children to be educated.

Other kinds of migration is that slums move from a ward to another ward within Dagon Myothit (East) Township (from ward 120 to Ywathargyi ward, from ward 133 to Sitpintaung ward, from Sitpintaung ward and ward 14 to Layhtaungkan village). At first, the slums owned the house or they rent, but later they cannot afford as not enough income, high rent and poor economy. Some stayed since they were born by farming, but the government took out the lands to extend the city. Some move here to settle as slum because their parents retired and no place.

Migration within the same ward and village is also found. They are ward 1, ward 133, Sitpintaung ward and Layhtaungkan village. In former time, many slum dwellers owned house, but fields near the University of Economics and Dagon University are taken out and then they rent to stay and at last they cannot afford to rent. Some are native, then rent and end up in squalid slums.

**Emergence and growth of slums**

<table>
<thead>
<tr>
<th>Push Factors</th>
<th>Pull Factors</th>
</tr>
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<tbody>
<tr>
<td>- Insufficient basic needs for human being in rural area such as healthcare and difficult transport</td>
<td>- Open spaces and/or virgin land in urban area</td>
</tr>
<tr>
<td>- <strong>Lack of job opportunities and better education</strong> in rural area</td>
<td>- Access to the centre of the city</td>
</tr>
<tr>
<td>- Hard to find work</td>
<td>- A better education and health care</td>
</tr>
<tr>
<td>- <strong>High rent and deposit</strong></td>
<td>- Cheap land</td>
</tr>
<tr>
<td>- The nature of the work such as odd-jobs in construction sites</td>
<td>- Being new townships where have industrial zones/Industrial Labours/hubs of rising income</td>
</tr>
<tr>
<td>- <strong>The marriage</strong></td>
<td>- Social ties, relatives</td>
</tr>
<tr>
<td>- Climate change, e.g. Nargic and flooding</td>
<td>- Wider space for poultry farming, cultivation and making brick</td>
</tr>
<tr>
<td></td>
<td>- natives</td>
</tr>
<tr>
<td></td>
<td>- <strong>Housing market dynamics in urban area</strong></td>
</tr>
<tr>
<td></td>
<td>- Changing policy, e.g, Toekyaungkyi village was changed into ward to establish new residential land</td>
</tr>
</tbody>
</table>

Source: Qualitative questionnaire survey in 2018

Fourth, researcher applies the framework, growth model for the emergence and growth of slum in Yangon City, to discuss the existing literature with a focus on emergence and growth of slum.


Many scholars’ findings for influencing factors of the growth of slums is shown in figure 6. They focus on rural-to-urban migration. In this paper, researcher focuses on rural-to-urban migration, urban-to-urban migration and native land owners especially they were farmers. The finding is shown in figure 5. Among many reasons of push factors, the most encounter problem is lack of job opportunities and better education in rural area, high rent and deposit, and the marriage. The most common reasons of pull factors are open spaces and/or virgin land in urban area, access to the centre of the city, a better education and health care, being new townships where have industrial zones/Industrial Labours, housing market dynamics in urban area and changing policy, e.g, Toekyaungkyi village was changed into ward to establish new residential areas.
Theory used

Factors influencing the growth of slums

Rural-to-Urban Migration

Push Factors
- rural poverty,
- environmental hardships,
- threat from natural disasters or conflict and
- war

Pull Factors
- the relative perception of better economic opportunities,
- provision of basic services such as education and healthcare within cities
- the freedom from restrictive social or cultural norms

Figure 6: Theoretical Background of the Study

4) Conclusion

Dagon Myothit Townships are new areas located in East Yangon District. They have many farm lands and fallow lands. They are newly constructed industrial zones in Yangon City. Their neighbouring townships are populated.

When the government extended Yangon City, farm lands in these new townships are established as the residential areas. Many speculators bought these plots of lands, but they do not stay, not run business and invest to get profits. Homeless people stay these uninhabited compounds as slum dwellers. These are the consequences of urbanization and built up industrial zones in new towns.

Slum settlement is the largest in new wards, extended ward, wards located along the creek and river, railway line, and major road because they have many open spaces to settle.

There are many reasons to become homeless people. They are working in poorly paid jobs such as workers in construction side as bricklayer, carpenter, joiner, demolition worker, painting and decoration worker and security guards at day or night, bus helpers, tri-Shaw drivers, working odd-job, road-side sellers, green grocers, waste collectors, plumbers, pourer and caster in plastic factory and work in metal joinery. Most of them do not finish their education, but it is generally accepted that people with more education have higher earnings.

In the country primary schools are State-funded, but they cannot attend the school because school-age children have to work for the family. Since the parents have not personally experienced education to improve their quality of life, they do not understand the advantages for their children and thus remain trapped in the cycle of poverty.

Growth and emergence of slums can impact the local economy, both negatively and positively. For example, the negative aspect of slum relates to the fact that they make the environment deteriorated due to lack of the waste disposal systematically. This causes disease burden on urban dwellers. In addition, they migrated from various places and have different social backgrounds. They live in open land without spending the cost of land. This can reduce urban housing market. On the other hand, the positive aspect is that most of them are working aged people. They can participate in urban labour market as cheap labour.

5) Discussion and Suggestions

Why do they become homeless people?

Emergence of slums

Research conducted in the period of before 2000 to the present, 2018 studies slum settlement in Dagon Myothit Townships mainly based on the socio-economic factors such as locational choice factors, level of education, age structure, occupation, income and expenditure, started settle year, preferences, constraints, push factors, pull factors and former living places. Another important thing is the victims of natural disaster; Nargic Cyclone struck in 2008 in coastal areas of Myanmar, especially in villages, Ayeyarwady Regions. The findings concur with Napier, 2007 and in in correspondence to Patel, 2012.

Growth of slums

Growth of slums is the consequences of migration from poor rural settlement area to urban area, from urban to urban area and poor urban governance such as high rent and deposit (it is compatible with Rajiv Awas Yojana in India in 2013) and people born within or in close proximity to slums (accord with UN Habitat, 2003). Another fact to be considered is changing policy in urbanization. For example, in 1990 Dagon Myothit South had 26 wards and six village tracts, but in 2009 many villages, such as Shantekyi, Agricultural and Husbandry No. (1), Layhtuangkan, Thonekhw, Kyi Su (west) and Ywatharkyi, has become urban residential areas. The number of wards therefore increases to 44 wards. Among them, 22 wards have no residents yet. This is an important fact to grow the slums in these uninhabited places.
Finally, researchers will suggest the officials to the challenges of slum dwellers by pointing out the constraints of the slums and their important needs in order to fulfill or support the living, job and basic needs with short term and long term plans.

**How to improve their capacities?**

**Solution for present situation**

Some people who live in informal areas have not got National Registration Card. Some jobs need to have NRC. They have therefore difficulties to join the job. Government should plan urgently to give NRC them and train these slums some works which are relevant to their present education background. It should be completely free of charge and enables them to become professional at work. Moreover, government should get them a job to earn while they are learning. These are more effective, suitable and best ways rather than giving them smart cards to move to low-value housing.

**Solution for long-term**

As a result of poor quality of education, uneducated parents are more focused on their short-term needs and neglects the long-term benefits of education and thus pull their children out of school to make money. All school-age children need to complete their education which is the best long-term solution to the problem of poverty, especially in poor communities and thus should focus on education at first. For this, government should plan not to lose of the labour forces of the family. Families have many school-age children. Most of them cannot study because they help their parents to earn. If the government neglects the problems of the slums, in the future they have to continue to work in low wage jobs and continue to stay a narrow, dirty and unsafe house.

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