

Zooming the Mandalay Urbanization Impact within nearby community: a case study of Shan Kalay Kyun village

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Abstract

The former royal capital of Mandalay City is the second-largest city of Myanmar with a total population of 1.73 million according to the census of 2014. Consisting of six townships: Aungmyaythazan Township, Chanayethazan Township, Mahaaungmyay Township, Chanmyathazi Township, Pyigyidagun Township, and Amarapura Township. Amafapura Township is considered as one of Myanmar's cultural Area and it is one of the Country's its main economic and transportation hubs. Many rural inhabitants from this township used to come to Mandalay City for seeking fortunes as glorious as the Mandalay Urbanization creates opportunities and benefits for people, but at the same time, it also creates harmful effects. It is too simplistic to assume in terms of winners and losers because people can be benefitted and harmed at the same time. So, this paper is the one to assess the benefits of Mandalay Urbanization and its negative impacts on of Shan Kalay Kyun Village as it locates near Mandalay city. To gain an affluent understanding of the impact of urbanization, the paper is conducted by a systematic and in-depth analysis via direct surveys using structured interviews. Along with the Mandalay Urbanization, occupational structures of the village are significantly changed. Flood problems, land erosions, land values, and manufacturing sectors are positively increased while agriculture activities and stable work possessing are negatively increased. Moreover, the paper also suggested that to maximize the benefits (positive impacts) of urbanization and to minimize or avoid the harms (negative impacts) of urbanization.

Keywords: Urbanization, Impact assessment, Benefits, Harms

1. Introduction

Shan Kalay Kyun village lies closely with the Mandalay city and it is a very interesting village because of its history; it was founded before Mandalay city. However, nowadays, Mandalay is the second largest city in Myanmar after Yangon with a population of 1,225,553 (2014 census) and remains Upper Myanmar's main commercial, educational and health center despite the rise of Naypyidaw, the country's capital since 2006. Moreover, in October 2018, Mandalay was ranked by CIO Asia as number fifth among the top 10 cities in Southeast Asia in the process of becoming a smart city for ASEAN Smart Cities Network. These factors are creating Mandalay urbanization processes more and more. As it can create benefits and harms for Shan Kalay Kyun village people, good management is needed to ensure that the benefits of urbanization are maximized and the negative impacts are avoided or minimized. But, no systematic study in social impact on village by Mandalay urbanization has been conducted so far. Therefore, this paper is an attempt to assess the social impact of Mandalay urbanization on Shan Kalay Kyun village.

2. Review of The Relevant Literature

Urbanization is a process of urban growth by natural increase in population or migration from rural to urban areas. It refers to a growth in the proportion of a population living in urban areas and the further physical expansion of already existing urban centers (Samson, 2009; Alaci, 2010). The increasing share of country's population living in urban areas mostly because of rural to urban migration denotes urbanization (Satterthwaite et al., 2010). It also denotes expansion of urban land uses and spatial concentration of people working in non-agricultural activities. Urbanization is the outcome of the social, economic and political developments that have led to urban concentration and growth of large cities and changed land use. Urbanization impact on rural livelihoods vary in different countries due to discrepancies of socio-economic conditions and status of development.

Urbanization has both positive and negative impacts on rural livelihoods. On the one hand, well-planned and managed urban growth and development can serve as a positive factor for rural livelihoods (Alaci, 2010). On the other, unplanned urbanization negatively affects rural livelihoods (UN-HABITAT, 2010; Mandere et al., 2010; Gossop, 2011).

Urban expansion has many adverse effects on village areas and the farmers (Tegegne, 2002). It impedes cropping land (Humphrey and Sneath, 1999) and thus results in declining livestock's mobility (Fratkin and Mearns, 2003). Price rise in food commodities has led to rise in hunger among urban populations (Cohen and Garrett, 2010) and its impact can be noticed among the village households.

Urbanization has significant impact on village (rural) livelihoods. Particularly, it has large negative impact on developing and underdeveloped countries, whose rural areas are suffering from the consequences of haphazard urban expansion and inadequate infrastructural facilities (NBS, 2011).

More recently, the Social impact Assessment practice is seen as a new way to create more opportunities that allow the affected individuals to take part in decision-making process and contribute to decisions made. As a result of SIA, individuals have a chance to voice what kinds of social change they want from development, and are in a position to adapt to desirable outcomes from development, rather than have to figure out the way to accept uncertain outcomes (Lockie, Franetovich, Sharma, & Rolfe, 2008).

SIA also fulfils an increasing public demand for transparency and accountability in development efforts (Esterhuizen & Liebenberg, 2001).

Craig (1990) stated that local involvement in SIA approach is more like a political approach to studying the social changes of people and their environment. The change from a "top-down" to a "community-driven" approach is proving to be more effective in gaining support for developments (Dasgupta & Beard, 2007).

Public consultation and resolution of potential social conflicts among decision-makers and communities, using SIA at early stages of development, provides a channel to facilitate public ability to deal with social impacts, together with those who have power to decide (Esteves & Vanclay, 2009).

In addition to twelve principles (see Table 1), Vanclay's (2003) International Principles for Social Impact Assessment provides extensive guidelines for the assessment of social impact assessments.

Table 1: International Principles for Social Impact Assessment Practice

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|--|
| 1. Equity considerations should be a fundamental element of impact assessment and of development planning. |
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2. Many of the social impacts of planned interventions can be predicted.
3. Planned interventions can be modified to reduce their negative social impacts and enhance their positive impacts.
4. SIA should be an integral part of the development process, involved in all phases from inception to follow-up audit.
5. There should be a focus on socially sustainable development, with SIA contributing to the determination of best development alternative(s) – SIA (and EIA) have more to offer than just being an arbiter between economic benefit and social cost.
6. In all planned interventions and their assessments, avenues should be developed to build the social and human capital of local communities and to strengthen democratic processes.
7. In all planned interventions, but especially where there are unavoidable impacts, ways to turn impacted peoples into beneficiaries should be investigated.
8. The SIA must give due consideration to the alternatives of any planned intervention, but especially in cases when there are likely to be unavoidable impacts.
9. Full consideration should be given to the potential mitigation measures of social and environmental impacts, even where impacted communities may approve the planned intervention and where they may be regarded as beneficiaries.
10. Local knowledge and experience and acknowledgment of different local cultural values should be incorporated in any assessment.
11. There should be no use of violence, harassment, intimidation or undue force in connection with the assessment or implementation of a planned intervention.
12. Developmental processes that infringe the human rights of any section of society should not be accepted.

To address the Social Impact Assessment of Mandalay Urbanization on Shan Kalay Kyun village, the ethnographic methods are invested in this research.

Dewan M.(2018) stated that ethnography is also a type of social research involving the examination of the behaviour of the participants in a given social situation and understanding the group members' own interpretation of such behaviour.

“Ethnographic research allows us to regard and represent the actors as creators as well as executants of their own meanings. The very way in which they tell us about what they do tells the researcher a great deal about what is meaningful for and in the research. It adds richness and texture to the experience of conducting research.” (Hannabuss, S.,2000).

3. Aim and Objectives

Research aims to assess the social impact of Mandalay Urbanization on Shan Kalay Kyun village.

Objectives of the research are to analyze the changes of Shan Kalay Kyun village by Mandalay Urbanization and to identify the positive of Mandalay urbanization and its negative impacts on social issues of Shan Kalay Kyun village.

4. Methodology

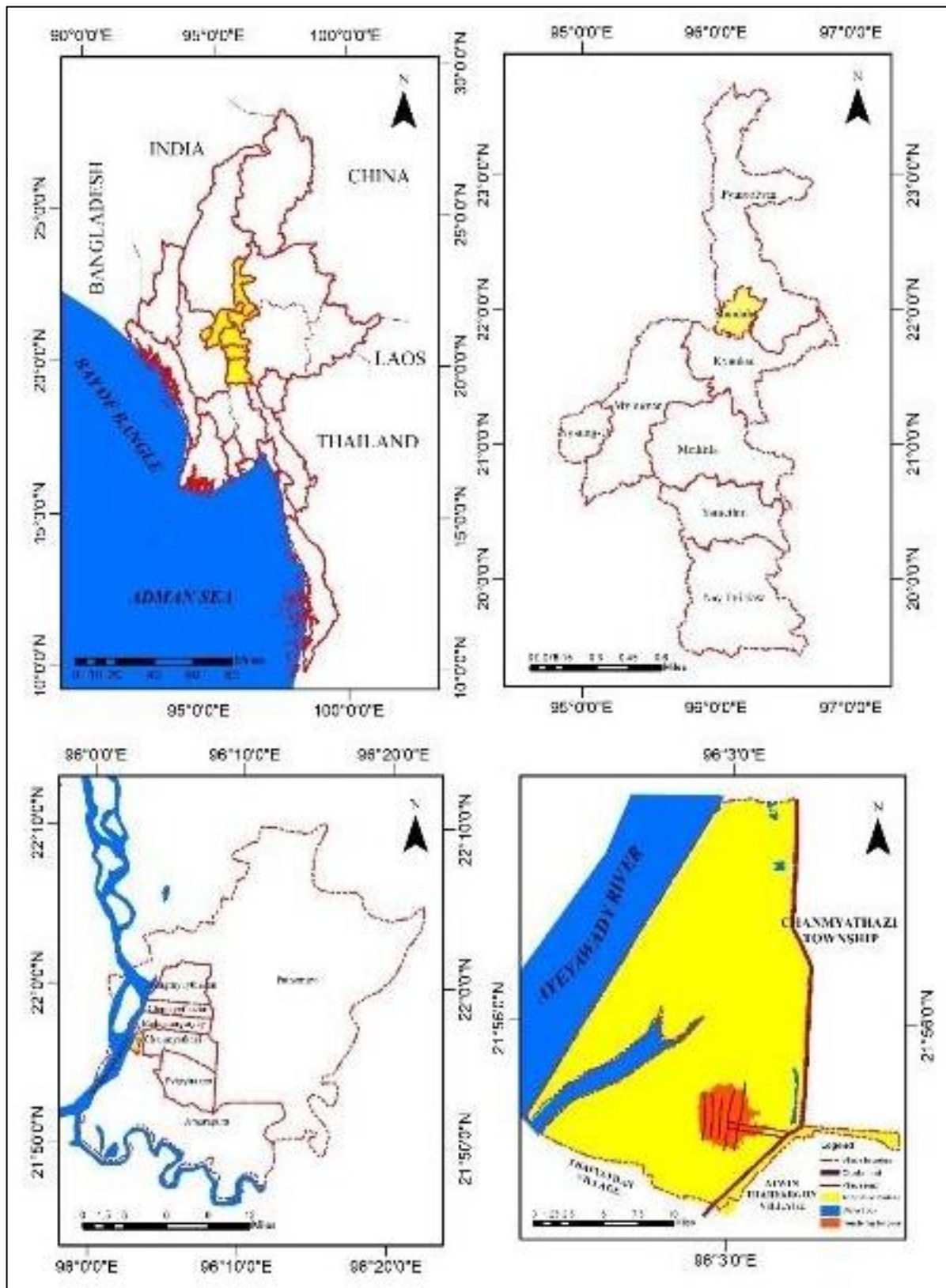
The decision to precede by a systematic and in-depth analysis of local context is one of the prime points to approach the Social Impact Assessment of Mandalay Urbanization on Shan Kalay Kyun village. In order to gain a rich understanding of social impact on village, the research had been investigated via ethnographic methodology.

5. Description of The Study Area

Mandalay City is located in the central part of Myanmar. It is composed of (6) Townships and orderly named from north to south; Aungmyaythazan Township, Chanayethazan Township, Mahaaungmyay Township, Chanmyathazi Township, Pyigyidagun Township and the last one is Amarapura Township with only (9) wards which are included as a city municipal area in 2011. It is clear that the former 5 Townships are totally urbanized since the city was founded, Amarapura Township is still composed of (9) urban wards, (42) village tracts and (166) villages (rural area).

The study area, Shan Kalay Kyun village is one of the 166 villages of Amarapura Township. It is located in the south-west of Mandalay city. It lies approximately at 21° 56' 00" N, and 96° 03' 10" E with a total area of 1,567.11 acres (2.45 square miles) and has a triangular shape in general. The village is bounded on north by Thayargon village, on east by Atwin Tharyargon village, on south by Thapyaydan village and on west by Arlaung village. The Ayeyarwady river forms as natural boundary on the west of the village (Map 1). As being located on the bank of the river, the flooding is occurred annually. According to the USGS satellite images on water occurrence at the village, flooding period is between 1 to 3 months. However, the river deposited alluviums are the very rich fertile soils that are renewed yearly by annual flood. For these, most of the village land use are engaged in agriculture land use and it is contributed to 1,549.50 acres that is about 98.87 percent of the village area.

Map 1: Location of Shan Kalay Kyun village



Source: Si Thu Min, Department of Geography and Environmental Studies, University of Mandalay

6. Findings

6.1 Socio-economic Analysis of The Study Area

According to the population data from Administrative off of Shan Kalay Kyun village (2014 to 2020), the village population has decreased from 3,749 in 2014 to 3,157 in 2020, the growth rate is – 2.26%. The village is settled with 1507 males and 1650 females. They constitute about 47.74% and 52.26% of total population respectively. The gender ratio is 91:100. The age composition and gender structure of the village are described in Fig 3.

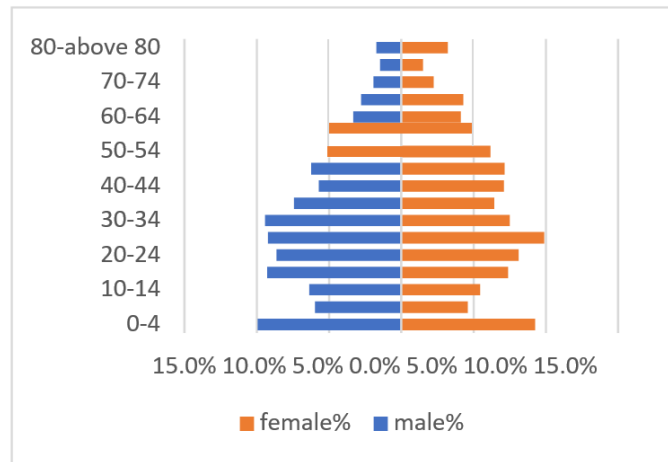


Fig 3: Age composition and gender structure

The mean values and standard deviations of socio-economic statuses of the study area (nine variables) are analyzed (Table 2). The mean age of survey heads of households is 48 years, household arable land is 0.6 acres, number of agricultural machinery owned per household is 1.3, number of cattle owned per household is 0.2, number of water assess owned per household is 0.7, number of electricity assess owned per household is 0.9, number of toilet owned per household is 0.8, number of transportation vehicle owned per household is 1.2, and number of telecommunication device owned per household is 3.4. Literacy rate among the heads of households is 100%, of which 40% are of primary school level, 26.8% are middle school level, 17.4% are high school level and 10% are university level. The survey shows that the major sources of energy for household are firewood (29.7%), coal (1.3%), and electricity (69.1%). The building materials of houses vary from brick (11.6%), brick and wood (34.3%), wood (15.2%) to wood and bamboo (38.9%). Similarly, the house size varies from one room to more than 10 rooms.

Table 2: Socio-economic analysis of the households (n=850)

Socio-economic indicators	Mean value	Std. deviation
Age of the head of household (years)	48.1	15.9
Arable land (acres)/ household	0.6	2.5
Agricultural machinery/ household	1.3	4.2
Cattle/ household	0.2	3.3
Water assess/ household	0.7	2.9
Electricity assess/ household	0.9	1
Toilet/household	0.8	2
Transportation vehicle / household	1.2	4.3
Telecommunication device/ household	3.4	5.6

Source: Field Survey, 2020

The occupational structure of the village is varied largely (Fig 1). Most of the population is engaged in farming (33.8%), wood curving (10.6%), bronze casting (13.5%), and self-employed (10.8%). Students are 21.3%. About 7.4% are unemployed and 2.6% are others running small businesses.

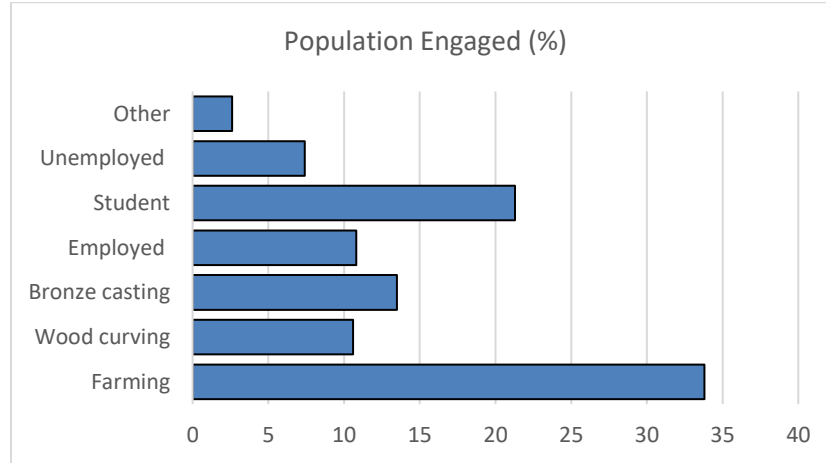


Fig 2: Occupational structure

6.2 Urbanization on Study Area

1. Urban Development Project

In March 2016, Mandalay City Development Committee signed an agreement with Mandalay Business Capital City Development Company (MBCCD) to develop the area including Shan Kalay Kyun village with a project that will include modern hotels, hospitals, schools, jetties, shopping centers, gardens and apartment buildings. The project is part of a bigger plan to modernize Mandalay and is expected to be completed in 10 years. The company started construction of the project in December 2017 after receiving approval from local government. The company has estimated an initial investment in project of 500 billion kyats (USD375 millions).



Source: Mandalay City Development Committee (MCDC), Myanmar

2. The slums

The slums are another part of Mandalay urbanization that is also a strive on village. As opportunities for wage earning in Myanmar have increased in urban areas over past two decades, families from rural townships in central parts of the country have moved to Mandalay in search of better opportunities. However, upon arriving many of these people have been forced to settle and form communities along the eastern banks of Ayeyarwady River with insecure form of wage labour. One policy that reflected this was in 2013 when the Mandalay City Development Committee (MCDC) enacted a policy of urban slum relocation, designed to 'clean' the Ayeyarwady riverbank by 'removing' these settlements. Each household was offered a small apartment in Mandalay City with the condition that they pay a monthly sum to pay off the property's construction – many of them took up the offer only as an investment opportunity but didn't actually changed from slum. They just moved a little far from original places and resettle as slum near Shan Kalay Kyun village. Finally, the slums are directly strived on social lifestyle of the village.



Source: Photo taken by author in 2020

3. Services

Since King Mindon founded a new kingdom at Mandalay, it has been started function of urban characters. Its location, its hinterland prospecting and its plain like landscape caused Mandalay to attract many people to in-migrate for about 2 decades. As a result, Mandalay city has become a populous area and also a commercial hub of Upper Myanmar after being a cultural center of the country. With a rising population, Mandalay urban area is expanding more and more. In 2011, the Amarapura is urbanized by Mandalay. Also, the Mandalay services are entered into Amarapura. So, the Shan Kalay Kyun village at Amarapura can easily purchase these services for their daily requirements.

6.3 Social Impact of Mandalay urbanization on Shan Kalay Kyun village

In this subsection, the urbanization's impacts on agriculture (agricultural land use and cropping pattern), vegetation cover, water, employment, income, prices of food commodities, education, medical facilities, transportation and other infrastructural facilities are analyzed. Urban settlements and land under construction of infrastructural facilities have increased, which caused large-scale land degradation. Natural landscape of the residential area of Shan Kalay Kyun village has been transformed into concrete structure. Arable land used for cultivation in village area has decreased during the recent past. Similarly, grassland (vegetation cover) in village area have also decreased during last three years. Agriculture dominates economic activities and it constitutes a means of livelihood to a large number of households, as people practicing agriculture account for 33.8% of the village population. The author observed substantial decrease in social issues due to impact of urbanization, and the surveyed subjects have confirmed the substitution of their social issues. The author interviewed the heads of households ($n = 850$) of the village with 18 questions on social impact and related issues (Table 3). Moreover, the author assessed the benefit of urbanization and its negative impact with the responds of these indigenous people (Table 4). Impact of urbanization is the strongest on cropping pattern and land use pattern as agricultural lands and vegetation cover have been transformed into land under construction. There is a rise in food commodity prices and urbanization has impacts on food product supply. Occupational structure has largely changed and off-farm employment opportunity has increased. Although production and yield of crops have decreased, the quality of arable land has very rich fertile. Educational and medical facilities

have increased and thus level of education and health quality have been improved. There is not much impact of urbanization on living standard, water availability, out-migration and income level. But, the land price of the village has increased.

Table 3: People's perception on social impact of urbanization

Q. No.	Questions	Respondents (%)	
		Yes	No
1	Impact on cropping pattern	81	19
2	Impact on livestock farming	14	86
3	Impact on land use pattern	97	3
4	Impact on food commodity price	76	24
5	Impact on vegetation cover	62	38
6	Impact on employment	67.8	38.2
7	Impact on occupational structure	77	23
8	Impact on production and yield of crops	58	42
9	Impact on medical and educational facilities	64	36
10	Impact on products' supply	61	39
11	Impact on rural–urban migration	10.6	89.4
12	Impact on education	38	62
13	Impact on quality of arable land	11	89
14	Impact on transportation facilities	61	39
15	Impact on water resources	13	87
16	Impact on health quality	88	12
17	Impact on living standard	38	62
18	Impact on income	43	57

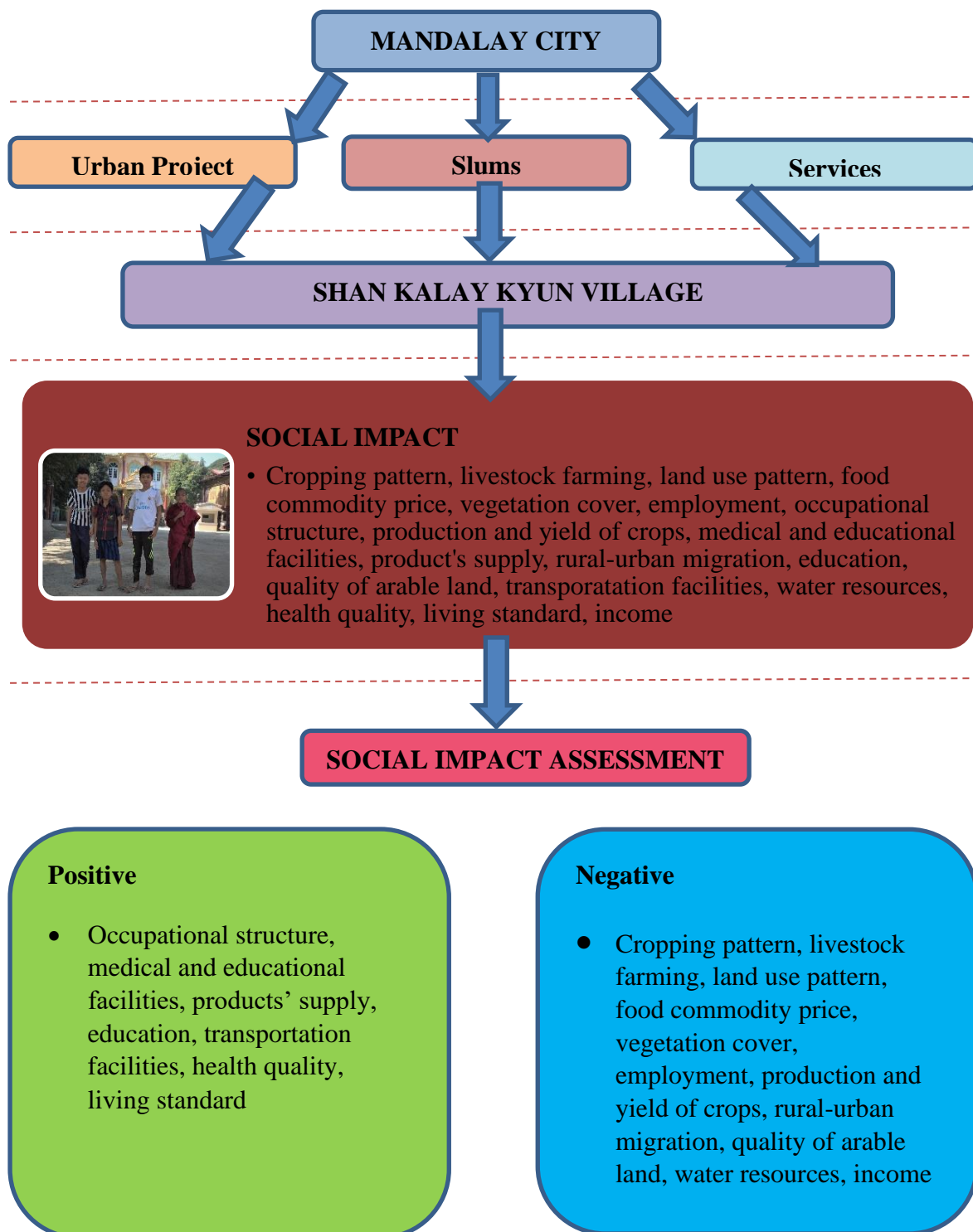
Source: Field Survey, 2020

Table 3: People's responses the positive and negative impact on social issues by urbanization

Q. No.	Questions	Respondents (%)	
		Positively impact	Negatively impact
1	Impact on cropping pattern	31	69
2	Impact on livestock farming	14	86
3	Impact on land use pattern	42	58
4	Impact on food commodity price	34	66
5	Impact on vegetation cover	16	84
6	Impact on employment	35	65
7	Impact on occupational structure	51	49
8	Impact on production and yield of crops	26	74
9	Impact on medical and educational facilities	80	20
10	Impact on products' supply	79	21
11	Impact on rural–urban migration	17	83
12	Impact on education	84	16
13	Impact on quality of arable land	39	61
14	Impact on transportation facilities	86	14
15	Impact on water resources	32	68
16	Impact on health quality	89	11
17	Impact on living standard	81	19
18	Impact on income	24	76

Source: Field Survey, 2020

Diagram: Social Impact Assessment of Mandalay urbanization on Shan Kalay Kyun village



7. Discussion

Socio-culturally, Mandalay urbanization impacts on people's way of life, that is how they live, work, play and interact with one another, and their culture. As the impact on people live, lack of sand bars possessing by urban project is played as the important role in impact of Mandalay urbanization. It creates the population density of village at residential area into getting high and some social conflicts are happening due to its consequences. As the impact on how the people work, the decreasing of agriculture land demonstrates that the shift of laborers to non-agricultural sector. At present, most these non-agricultural laborers are engaged in trade, services and construction, which require a relatively low level of skills. Laborers in non- agricultural sectors are usually self-employed or do casual work. Only about 20% of laborers in non- agricultural sector have stable wage labor. This illustrates that employment is still in a period of transition. As the impact on how the people play, although there was a football playground of the village, it has been changing by land reforming for ongoing urbanization processes. So, football matches cannot take part anymore, which impact the traditional lifestyle of the village. As a consequence of lack of playground, young villagers and children used to play on the streets of village that is forcing to happen traffic accidents. As the impact on how the people interact with one another, in recent past, although about 90 percent of household have been engaged in agriculture, they are transforming into different sectors; wood curing, bronze casting, retail shops, and etc... So, they mostly interact with one another in same occupations. But, there is some interaction with different occupational people when they have same focus on such as socioreligious tasks, and regular community work. As the impact on culture, the village is impacted by urbanization in both tangibly and intangibly. Tangibly, the Shan Kalay Kyun is an island landscape which has evolved through geomorphological landscape processing and human intervention, and processes of evolution in their form and component features are still visible today. One can witness the landscape being continuously used, which retains an active social role in contemporary society of the local communities. The Shan Kalay Kyun cultural landscape is characterized by being a lived- in area, that is, a space inhabited on a daily basis, where the land plays an important productive role in the local economy, as well as being symbolic and cultural value. But some cultural landscape is changing by land reforming under urban construction. Moreover, the intangible culture of the village, such as oral traditions that is getting disappeared by immigrants, social practices that is getting transformed by lack of agriculture and lack of sand bars possessing, festive events as village Buddha festival and winter sport festivals that are disappeared by crimes and lack of playground, and two types of craftsmanship that are facing difficulties by poor economic conditions, are also impacted by urbanization.

Economically, the village have been engaged with 3 sectors of economy; primary sector, secondary sector and tertiary sector. In primary sector, 90% of households is engaged in agriculture. But, most of them are facing in economic difficulties due to the decreasing of agricultural lands. Some land owners sold out their land as the land price is in rise to supply their needs for better lifestyle. But the labors who depend on their lands are going to be job less. In secondary sector, 4 types of manufacturing are occurred as wood curing, bronze casting, food stuff industries and constructional material work. Among them, wood curving and bronze casting are visible impact of urbanization as sequences of agriculture land decreasing. Others at SME level are not obviously changed in village. In tertiary sector, the retail shops and service shops that is only 13% of the total houses of the village are performed. As an outcome of the Mandalay urbanization, every part of the city is getting facilitated

by many different services. So, very closed to Mandalay city the village can purchase various items of commodities directly from near Mandalay markets. Therefore, shops at the village are getting upgraded to cover their customers' satisfactions.

These description of the social impact assessment of Mandalay urbanization on Shan Kalay Kyun village explain the real situation of the village and it will help the future plans of the village to bring about a more ecologically, socio-culturally and economically sustainable and equitable environment at there. And, it will identify development goals, and ensuring that positive outcomes are maximized, and negative outcomes are minimized.

8. Conclusion

The authors noticed that urbanization of Mandalay on Shan Kalay Kyun village has both positive and negative impacts on social issues. Although the village has increased substantial infrastructural facilities (transportation facilities, educational and medical centers), there is a reduction of around 67.73% on arable land in village area because of the construction of urban infrastructural facilities. As a result, production of crops has decreased. Reduction in grazing land have also caused decrease in livestock population. The young people are shifting their occupation from practicing agriculture to non-farm activities and as a result, farming activities have decreased. Only about 20% of these young people in non- farm activities have stable wage. This illustrates that employment is still in a period of transition. Increase in urban service flow further implies decreasing agricultural activities. All these negative impacts have put village at risk.

9. Suggestions and future prospects

An adequate and sound policy at the local level is essentially required to achieve a sustainable society and sound environment in village. All the stakeholders of urban development — the government, urban planning officials and the local people — should come together to frame policy measures via ensuring the social development of the village.

To maximize the benefits (positive impacts) of Mandalay Urbanization,

- 1) the government should be considered on varying occupational structures by supporting and creating markets
- 2) Improving medical, educational and transportation facilities should be for everyone
- 3) the environmental awareness level of the people in Shan Kalay Kyun village should be upgrade by environmental public talks, and campaigns

To minimize or avoid the harm (negative impacts) of Mandalay Urbanization,

- 1) the government should be considered on reducing agricultural presence and its allied activities sustainability as it constitutes a means of livelihood to a large number of households and Myanmar is also going to gain the agro-based industrial economy
- 2) the stakeholders should be discussed about the laborers into casual work for creating new employments

In this paper, the considered scope for doing research to assess the social impact of

Mandalay urbanization on near Shan Kalay Kyun village is quite broad and its urbanization processes and allied activities are also increased as the city has expanded even during the study period. Therefore, to assess the social impact of Mandalay urbanization holistically can't be implemented and there is always required to gain value-added information with the times.

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