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# Rural urban migration and rural depopulation in Ayeyarwady region: a case study of three villages in Pyarpon township

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**Abstract:** Rural urban migration is gaining momentum in Ayeyarwady Region and people from rural area move to urban area to get higher income and better living standard. Agriculture is a major economic activity of the area but local people do not get sufficient income. Like other rural areas in developing countries, economic reason is a major cause that forces people move to the urban area. In the study area, permanent, temporary and seasonal migrations are found and among them, temporary migration is more pronounced. Number of female migrants is higher than that of males due to labour requirement of textile factories in Industrial Zones within Yangon Region. Most migrants are in the age group between 20 and 30 years. Education level of the migrants is low and they earns as casual labour. Although they move to the urban area with the intention of supporting the family, more than half of the migrants do not support regularly because of low income and high cost of living in urban area. Problem on rural depopulation is indistinct due to high birthrate of rural area in the last thirty years ago. This paper tries to find out the causes of migration, to examine the socio-economic characteristics of migrants and to explore problem related to rural depopulation of the area. To present this paper, primary data were collected by using semi-structured interviews and Focus Group Discussion (FGD) was mainly applied. To present the paper, qualitative and quantitative mixed method was applied.

Key words: Causes of migration, types of migration, socioeconomic conditions of migrants, problem on migration.

#### Introduction

The migration of labor from rural to urban areas is an important part of the urbanization process in developing countries. In Myanmar, three types of migration are generally found. Permanent migration is considered to be permanent when migrants have left their origin place for ever and settled in the destination place (with or without registering with the authorities). They do not intend to return to their original place of residence. Temporary migration is considered to be temporary, when an individual or household (fully or partly) settles in the destination location throughout the year, but still has the intention to return to the original place of residence. Seasonal migration is considered to be seasonal, when it takes place only in a certain time of the year or when the migrants return to their places of origin at least once a year (Nyi, 2013).

In Myanmar, rural population was 73 percent of the total population in 2000, and it decreased to 65 percent in 2015 even although fertility rate of rural area is distinctly higher than that in urban area (World Bank, 2015). It somehow highlights rural urban migration is gaining momentum in Myanmar. Like other developing countries, low and irregular agricultural income, agricultural unemployment and underemployment are considered as basic factors pushing the migrants towards developed area with greater job opportunities in Myanmar.

Most of the studies indicated that migration is primarily caused by economic factors. World Bank (2014) expressed that the Ayeyarwady Region have been high levels of migration in recent years, especially since Myanmar's economic transition started in 2011. One in four households in Ayeyarwady has a family member living as a migrant away from home. Fifty-eight percent of migrants move to Yangon Region due to greater job choice caused by urbanization. Rural urban migration is found as a consequence of economic hardship and low living standard in Pyapon Township although there are also few people moved from the native place to other areas because of education and health reasons. In Pyapon Township, rural urban migration is gaining momentum and economic reason plays important role in migration. Permanent, temporary and seasonal migration patterns are found in internal migration; both men and women migrate, while internal migration is mostly female dominated.

There are several factors such as technological improvements in agricultural production and decreasing returns of agriculture, etc driving migration and rural depopulation (Australian Government Department of Families, Housing, Community Services and Indigenous Affairs. Communities, 2006). As part of the rural area, 70 percent of the people live in rural area and engage in agriculture in Pvapon Township (Regional Facts of Pyapon Township, 2015). Agricultural machineries are now used in cultivation and working period in agriculture short. Most local people getting become is underemployment and they do not get income in off-time period. Therefore, they migrated to urban area.

According to survey, most of the migrant are landless and some earns as casual labour by earning as carpenters, fishermen, tradesmen, etc in Pyapon Township. They do not get regular income that is important for the family's survival. Therefore, one or two of family members especially father, eldest or youngest son or daughter move to other area to earn higher income.

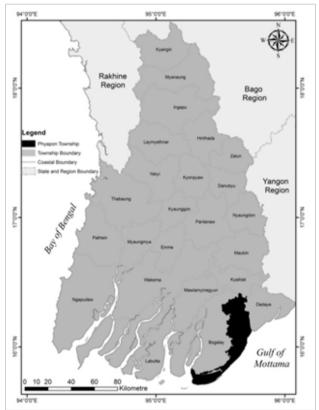
Young people migrated from rural areas to seek employment in the urban areas where economic activities are concentrated and income level is higher. Although rural young adults move to urban areas, they are low skilled labour and they do not get high income. They work as daily waged workers or casual labour. As their skill and daily income are low, they usually move to one work place to another for searching better work and higher income. They are low skilled workers and they easily get jobs. They move from one factory to another owing to low income, social affairs, etc.

In the study area, although the migrants move out from the home land, as they did not take out from the family registration and they stayed as temporary residents in the destination places. Therefore, it is difficult for portraying rural depopulation. Problem on rural depopulation is not much less intense due to high fertility rate of rural area in the last 30 years. Problem of old aged persons is not also found due to low life expectancy. Life expectancy is low in Ayeyarwady region. Permanent land abundant is not also found because one or two family members moved to urban area and other family members work in agriculture. But, problem on rural depopulation will become pronounced intense due to high rate of migration.

Therefore, most migration caused by economic reason has become more pronounced in the study area but socioeconomic condition of the family left in the rural area is not improved.

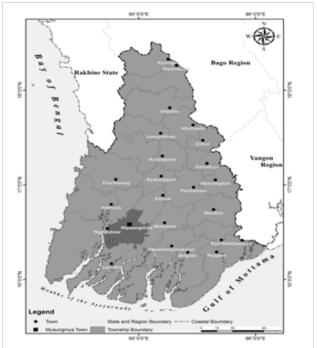
Pyapon is one of the 26 townships in Ayeyarwady region within Deltaic area. Pyapon Township is located in the western part of Pyapon district.

It lies between  $15^{\circ}$  50 ' and  $16^{\circ}$  25 ' north latitudes and also between  $95^{\circ}30$  ' and  $95^{\circ}45$  'east longitudes (Fig. 1). It is 64 miles away from Yangon region. The area is 587.303 sq. miles and it is composed of 2 towns, 18 wards and 52 village tracts in which 166 villages are included (Fig. 2).



**Fig. 1.** Location of Pyapon Township in Ayeyarwady Region, Source: Agriculture Atlas, 2002

Its relief is alluvial plain. The elevation is nearly 3 meter (8 ft) above the mean sea level. Two-thirds of the township is lower valley land. Therefore, agriculture is one of the major economic activities of the area. There are many streams and distributaries in the township, being deltaic low land and most people earn as fishermen. In the area, copra making is also found because of existing coconut farm. The objectives of the study are to find out



**Fig. 2.** Location of Study Areas in Pyapon Township; Source: MIMU

the causes of migration, to understand pattern of migration, to examine reimbursement of migrants and to explore problems related to rural depopulation of the area.

#### **Materials and Methods**

In Pyapon Township, Kondaing, Yoekone and Mingalar Thaungdan villages were chosen as case study areas because thirty percent of the households have one or more migrants. To get thorough understanding on socioeconomic conditions of migrants, migrant profiles such as age, education level, income, social contacts, job opportunities, etc. were collected. Although the major economic activity is agriculture in the area, fishing and copra making are second most important economic activities respectively.

In 2015, 92 (28%) out of 320 households in Kondaing Village, 72 (24%) out of 295 households in Yoekone and 73 (30%) out of 220 households in Mingalar Thaungdan had one or two migrant workers.

Primary data were gathered by using questionnaires. Nine households from three villages were interviewed and questionnaires were distributed to 237 households in three villages. The answers of one hundred and fifty-five questionnaires were applied to present the research work.To get overview on migration and rural depopulation in Pyapon Township, Focus Group Discussion (FGD) was conducted with the help of authorities concerned from General Administrative Department, Staff of Agriculture Department and heads of the villages. In the paper, primary data was chiefly applied and quantitative and qualitative mixed method was mainly used.

**Rural urban migration:** Rural urban migration is distinct in the area and most migrants moved to other urban areas to get better life and higher job opportunities.

Industrial zones in Yangon region have become focal point that absorb people from rural areas to come, settle, and work. The industrial sector is expanding and job opportunities increase in the urban area especially in Yangon Region, young adults of the rural area moved to urban areas and in this way the rural-to-urban migration is gaining momentum. Rural to urban migration is an inevitable result of industrialization in the urban area. Economists expressed that rural to urban migration as a process of labor movement from less-developed to more advanced areas.

The number of migrants has been increasing (Fig. 3). The increase in number of migrant is higher in Kondaing Village because more than half of the migrants are landless and they earns as casual labour. The increase in number of migrant is lower in Yoekone Village because copra making is done as second economic activity that can provide job year round basis although the income is low and irregular.

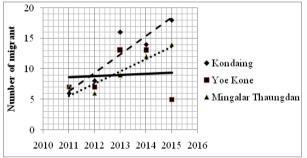


Fig. 3. Migration of Study Areas; Source: Field Survey (2015, 2016)

**Types of migration- International and internal migration:** Bunea (2012) stated that migration is not a random process. It is a rational choice that implies two decisions: to migrate and where to migrate and the longer the distance, the lower the incentive to migrate due to higher migration costs. In the study area, both internal and international migrations are found. But internal migration is more common in the area due to lack of knowledge and investment to go abroad as well as low skills.

Only six percent is international migrant that moved to abroad especially to Thai, Malaysia etc. and the remaining ninety-four percent is internal migrants. The number of internal migrants is much higher due to low investment, education level, etc.

**Patterns of migration:** In the area, permanent, temporary and seasonal migrations are found. Temporary migrants rank first with nearly fifty percent and temporary migrants usually come back to their village once a year during New Year festival due to long holiday (Fig. 4). Number of permanent migrants ranked last. They intended to stay temporarily in the urban area when they moved. Then they got married and they settled in urban area for the purpose of getting higher income and better environment. Seasonal migrants come back to their home place in the cultivation or harvesting periods to help their families. Agriculture needs seasonal labour and some local people work in the urban area in off-farm period. Causal labours that worked in construction work usually come back to their village when the job choice is low in the rainy season. Causes of migration: Lee (1966) said that the 'push factor' is more important than the 'pull factor'. The difficulties in rural areas, such as poverty, unemployment, crop failures and famine, inadequate social amenities and

facilities, and land shortages are driving forces that urge the people in rural area to leave their native area and find a new place to settle and to work. The major causes of rural-urban migration is to search better wages, education, political and social stability, technologies, employment and business opportunities.

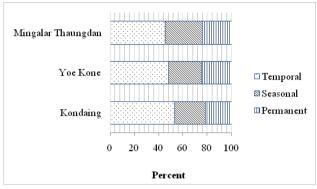


Fig. 4. Patterns of Migration; Source: Questionnaires' results (2016)

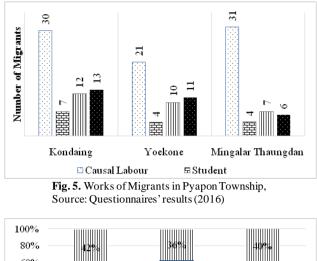
Although there are many causes of migration, economic reason is a major cause that forces the rural-urban migration in the area. Varoufakis (2000) said that rural migration is caused by decrease in agricultural working period, lack of employment opportunity outside agriculture, and more economic opportunity in urban areas. Rao (2007) assumed that low income of farm economy and break-down of traditional economic model led to migration and rural depopulation.

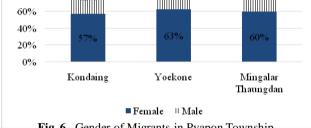
Agriculture is major economic activity in Ayeyarwady Region including Pyapon Township. In the area, the traditional mode of labour intensive agriculture changes gradually. Most farmers use agriculture machinery in tilling. It shortens working period and local young adults encounter underemployment problem. In planting period, they practice broadcasting method that needs small amount of labour. Productivity is low because of low investment and salt water intrusion into the paddy field at the end of rainy season. Therefore, agriculture is not a major pillar of the economy in Pyapon Township and it gives low and irregular income. Therefore, local people tried to move to urban areas to get bright sides.

In Pyapon Township, fishing and copra making are second economic activities but they are seasonal job. Fishing is mainly done in the rainy season. Copra making is done throughout the whole year but it is mainly done in the dry season as it is necessary to dry up flesh of the coconut. Landless people work in these second economic activities and these works do not give regular income for their survival.

**Works of migrants:** Economic hardships and low income are among the factors behind migration. Some people earn as traders who sell foods for local inhabitants and they also do not get sufficient regular income owing to higher cost of living.

In Kondaing Village, nearly eighty percent of local people earns as causal labour because most are land less. Number of causal labour is high with forty-two percent in Yoekone and they mainly work in copra making (Plate 1e and 1f). Thirty-three percent of the migrants are fishermen in Yoekone and thirty-one percent in





-Fig. 6. Gender of Migrants in Pyapon Township-Source: Questionnaires' results (2016)

MingalarThaungdan villages (Fig. 5) because these villages are located near the coastal areas and most local

people earn at sea as fishermen. The females in these villages work in fish selection at the depot to get daily income (Plate 1c and 1d). These are seasonal work and local people do not get regular income. Therefore, they move to other places for the purpose of getting higher and regular income as well as bright future (Plates 1a-1h).

#### **Profile of migrants**

**Gender and age groups:** Zhao (2003) said that females are much less likely to migrate than males. But in Myanmar, about fifty-two percent were females and fortyeight percent males in 1991 (Nyi, 2013).Similarly, in Pyapon Township, according to questionnaires' answers, number of male migrants exceeds that of male in 2016. More than half of the migrants are female (Fig. 6). It somehow unfolds the female take responsibilities to get income in the rural area. Female labours have greater chance to get jobs in urban area because of growth of factories in the industrial zones of Myanmar.

Number of female is higher because of a greater demand for female labourin factories of Industrial zones (Plate 1g and 1h). There are 23 industrial zone in Yangon region which is nearest to Ayeyarwady region. There are many Joint textile factories in Hlaingtharyar Industrial Zone which is largest industrial zone in Yangon Region and female adults have higher opportunities to work in the factories irrespective of their education.



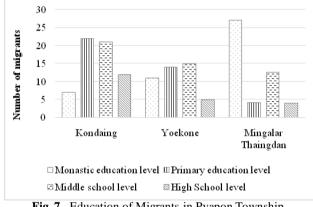
Migrants are predominantly young adults from low income families. The largest proportion of migrants falls in the age group between 20 and 30 years. Some adults move to the urban area after finishing their matriculation exam at the age of 16. Factories in Industrial Zone mainly

collect the young adults who are between 18 and 30 years old. Table 1 shows that the migrants with the age between 20 and 30 years old ranked first in three cohorts of the migrants (Table 1).

Age group	Kondaing	Percent	Yoekone	Percent	MingalarThaungdan	Percent
>20	25	40%	6	12%	9	20%
between 20-30	35	56%	25	52%	21	47%
>30	3	4%	17	36%	15	33%
Total	63	100%	48	100%	45	100%

Table 1. Age groups of migrants (2016)

**Education level:** More than half of the migrants in the area are of low education level (Fig. 7). After passing middle school, most of the student left from the school because it is difficult to attend high school due to low family income and far from the high school. In the area, students take more than an hour to get to the high school. Education level of migrants is low but they get the jobs easily because their works are irrespective of their education level and they earn as blue collar workers. According to field survey, most migrants are of basic primary and middle education level because oflow accessibility and less education facilities.



**Fig. 7.** Education of Migrants in Pyapon Township Source: Questionnaires' results (2016)

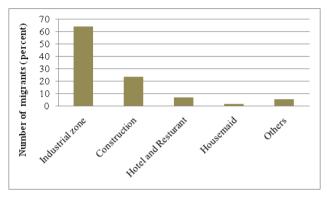
**Occupation and income:** World Bank (2013) said that migrants mostly find works in informal labor markets in construction sites, restaurants and tea shops in urban areas. A minority enjoy more formal employment in garment factories.

In the area, most male migrants work in construction sites and commercial areas as blue collar labour. Nearly seventy percent of the female migrants work in Industrial Zone, especially in Hlaingtharyar Industrial Zone due to nearness to Ayeyarwady Region. It needs many female workers and they are easy to get jobs. Whoever with the age under 25 has a chance to work there and they get regular income.

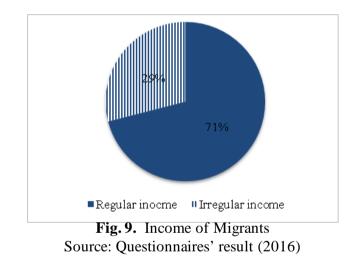
According to survey, nearly ten percent of the migrants work as waiters, waitress, house keeper, nanny, etc. in hotels, restaurants and homes and they get a place to stay and food (Fig. 8). They save more money than migrants who worked in construction, trading, etc because of less cost on food.

Income difference depends on skill of the workers. In construction, the income ranges from 4000 ks to 10,000 ks per day due to heavy works. In textile factories, income ranges between 3000 ks and 5000 ks per day. But, most females get 4500 ks per day.

Migrants moved to the urban area for the purpose of getting higher and regular income. Most migrants who work in industrial zones especially factories, etc. get regular income on monthly basis. Some get daily income which is slightly higher than income that was available in the village.



**Fig. 8.** Jobs of Migrants in Urban Area Source: Questionnaires' results (2016)



Some who worked in hotels and restaurants usually get regular income as well as lunch or dinner. Therefore, they can save more to support their family. But, those who work in construction and trading business do not get regular income because construction workers have to move to other places after finishing their work and they are sometimes underemployment.

According to questionnaires' results, seventy-one percent of the migrant get regular income and twenty-nine percent do not get regular income (Fig. 9).

**Dwelling:** Migrant hoped to live in better environment in the urban area. But, according to questionnaire survey, fifty-three percent of migrants have to live in a rental house or apartment in which nearly 10 migrant stay together. Twenty nine percent of the migrants stays at places provided by the employees. It is hall typed room and more than twenty workers live there. Eighteen percent of the migrant stay at relatives' homes and they have to pay fee about 10000 ks per month. Restaurants and hotels give rooms to stay to their workers.

**Remittance of migrants:** All migrants have an intention to support their families but they cannot support their family regularly. About ten percent of the migrants got married in urban area and they became difficult to support their families. Nearly thirty percent of migrants support their families regularly and more than fifty percent of migrants send remittance to their family three or four times in a year (Fig. 10).

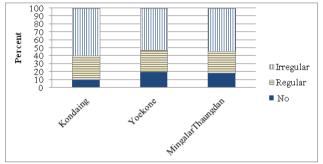


Fig.10. Remittance of Migrants, Source: Questionnaires' result (2016)

They usually send their salary to their families when the younger brothers and sisters enroll the school in June, to pay homage to their parents and for religious festivals in October, when Myanmar New Year is held in April and in the time of emergency for their parents' health.

World Bank (2013) expressed that migrants primarily seek jobs through social networks in their villages rather than through paid brokers. These networks help migrants identify job opportunities and secure accommodation in destination sites in an unknown environment before they leave their village. Massey (1990) also said that the rural urban migration is also controlled by their social networks. Social networks play an important role in decision making on migration. Chain migration is distinctly found in the study area and rural people moved to urban area with the help of the people who was born in the village and live in urban area. They do not pay any fees to them for the help.

According to field survey, mobility of unskilled labour is also found. Fifty-two percent of the migrants have moved from one factory to another within 5-year period due to social affairs, low income and high travel cost.

Moreover, cultural change especially change in dressing style and hair style is found in the area.

**Depopulation:** Knight (1994) pointed out depopulation has been due largely to the emigration of young people. In Pyapon Township, problems on rural depopulation is still indistinct. It is resulted from high fertility rate of Myanmar in the last 30 years ago. Fertility rate of Myanmar was 4.59 percent, rural 4.87 percent and urban 3.52 percent in 1983 (Myint, 1988). Although one or two family members move to the urban area as temporary migrants, other family members left the rural area and it reduces problem off abandoned land. On the other hand, there is no problem of old age persons due to low life expectancy. In Ayeyarwady region life expectancy was 61.0 in 2014 (CSO, 2014).

Temporary abandoned lands are found because local people do not cultivate their field to reduce amount of capital investment. Permanent abandoned lands are not found in the area as one or two family members moved to urban area and other family members work in agriculture.

#### **Findings and Discussion**

Although urbanization in Myanmar during the first decade of the 2000s lagged behind due to Myanmar's economic isolation, urbanization and rural urban migration become distinct after 2010.

In Mandalay, Magway and Sagaingregions, migrants move to Kachin and Shan states (Country Report, 2009). But, migrants of Pyapon Township mainly moved to Yangon Region because of nearness to the area and existing industrial zones.

Reasons for migration include relative poverty, lack of jobs, inability to earn enough money to survive as well as political and/or ethnic conflict in Myanmar (Hall, 2012). In the Dry Zone, most migrants said that the major cause of migration is lack of sufficient employment in the local community (Helvetas Swiss Inter-cooperation Myanmar, 2015). In Pyapon Township, major cause of migration is lack of regular income.

Migration is mainly caused by rural economy that gives low and insufficient income to local people. In the area, internal migration is distinct due to low skill and investment. Three patterns of migration: permanent, temporary and seasonal migration are found.

In Dry zone area, number of male migrants exceeds that of female (Griffiths, 2014). But, number of female migrant is higher than that of male because of work opportunity of females at Industrial Zones. They earn as low skilled labour in urban area due to low education level. Although they moved for the intention of supporting the families, they get low income and they do not get the better environment that they imagined. But, most migrants get regular income. Most migrants live in poor housing and they do not support their family regularly.

Thet (2014) stated that Most of the migrants were aged between 50 and 59 years in Monywa Township. In the study area, most migrant are between 20 and 30 years old and the new generation is not interested in agriculture due to low income and heavy works. Significance of the agricultural sector is gradually losing. It will be the problem in the future because agriculture is major pillar not only for rural people but also food security of the country as deltaic area is rice bowl of Myanmar.

Problems on rural depopulation such as abandoned land, old aged persons, etc are indistinct until now. But, it will be nearly future due to high rate of migration.

Therefore, it is necessary to create alternative job opportunities based on local raw material. In Yoekone Village, coconut is grown and it is suitable to establish the small scale industry that uses coconut, a local raw material. In addition, vocational training centers which based on local raw materials and local economy should be established in the rural areas for training of the productive youths. After finishing vocational school, the youths should be supported with micro loans to set up new small enterprises that in turn create job opportunities for local people and rural development. It is also important to upgrade infrastructure especially roads that are one of the pillars supporting economic growth. To reduce adverse effects of migration in the future, it is also necessary to do researches on economic potentials of the area, the impact of rural urban migration, the impact of internal migration and economic growth in rural area, education and rural development in Pyapon Township.

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#### References

- Australian Government Department of Families, Housing, Community Services and Indigenous Affairs, 2006, Communities, Social Capital and Public Policy: Literature Review, Policy Research Paper, pp-26.
- Bunea, D. 2012. Modern Gravity Models of Internal Migration, The Case of Romania ,Theoretical and Applied Economics, Volume XIX (2012), No. 4(569), pp. 127-144
- Central Statistical Organization (CSO), 2014. Central Statistical Organization and the Department of Health, Rangoon
- Country Report, 2009, Myanmar, www.burmalibrary.org/ docs09/ HIV-AIDS Mekong- region -Myanmar. pdf
- Griffiths, M.P. 2014. Formal Sector Internal Migration in Myanmar(ilo.org>..../documents/publication/wcms\_440076 /pdf)
- Helvetas Swiss Inter-cooperation Myanmar, 2015, Internal Labour Migration Study in the Dry Zone, Shan State and the southeast of Myanmar (https://assets. helvetas.org/downloads/helvetas\_myanmar\_internal\_migrati on\_study\_feb2015\_final.pdf)
- Hall, A. 2012. Myanmar and Migrant Workers: Briefing and Recommendations, Mahidol Migration Center (Http://Oppenheimer.Mcgill.Ca /IMG/ Pdf/

Myanmar\_And\_Migrant\_Workers-Briefing-And Recommendations.Pdf)

- Knight, J. 1994. Town-making in Rural Japan: An Example from Wakayama, Journal of Rural Studies, 10(3):249-261.
- Thet, K.K. 2014. Pull and Push Factors of Migration: A Case Study in the Urban Area of Monywa Township, Myanmar (worldofstatistics.org > files/2014/03/Pull-and-Push)
- Lee, E.S. 1966. 'A theory of migration', Demography, 3(1):47
- Massey, D. 1990., "Social Structure, Household Strategies, and the Cumulative Causation of Migration", Population Index 56(1):3-26.
- Myint, N. 2014. Recent Levels and Trends of Fertility and Mortality in Myanmar, Asia-Pacific Population Journal, Vol. 6, No. 2.
- Nyi, N. 2013. Levels, trends and patterns of internal migration in Myanmar, Department of Population, Ministry of Immigration and Population, UNFPA: Nay Pyi Taw, Republic of the Union of Myanmar.
- Rao, C. 2007. Mechanism and Political Measures of Japanese Rural Depopulation and Its Reference to the Chinese Rural Construction, Zhejiang University Journal of Humanities and Social Sciences 37(6): 147-156.
- Regional Facts of Pyapon Township, 2015. General Administration Department, Pyapon Township
- Varouhakis, M. 2000. Greek Villages Facing Slow Death, Retrieved from: http:// www.helleniccomserve.com/slowdeath.html
- World Bank, 2013, Rural Depopulation: Demo-Economic Aspects of Push and Pull, Demo-Economic Issues, 4(JC). Washington, D.C.
- World Bank, 2014. A Country on the Move: Domestic Migration in Two Regions of Myanmar, http://www.worldbank.org/en/country/myanmar/publication /a-country-on-the-move---domestic-migration-in-tworegions-of-myanmar
- World Bank, 2015. Rural population, http://data. worldbank.org/indicator/ SP.RUR. TOTL. ZS?locations=MM
- Zhao, Z. 2003. Rural-Urban Migration in China, What Do We Know and What Do We Need to Know? China Center for Economic Research, Peking University.