SOCIO ECONOMIC CONDITIONS IMPACT ON POVERTY REDUCTION: ANALYSIS OF HOUSEHOLD SURVEY IN BYAUK YOE VILLAGE TRACT, TWANTAY TOWNSHIP, YANGON REGION

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Abstract

This research is focused on the development of rural areas and reducing rural poverty in Myanmar. This paper deals with the case of Byauk Yoe village tract, Twantay Township, Yangon Region. Data were randomly collected 140 households from 369 households in the study area. In April 2019, a sample survey was conducted in Byauk Yoe village. The research methods in this study were conducted both descriptive and analytical type. Households for this study were selected by using systematic sampling method and level of precision is 5 %. The objectives of this study are to study the economic activities in rural area; second one is to review socio-economic conditions for study area. The last one is to analyze the impact of socio economic factors on poverty alleviation. In the study the main research question is which influencing factors that determine the poverty alleviation through the socio-economic development. The results showed that male and female population aged between 15 years and 64 years are 208 and 248 respectively. To analyze the multiple regression model, the food expenditure of sample household was used as dependent variable and gender of household head, household size, number of economically active members, occupation of household head in each household were used as independent variables. Durbin-Watson (DW) and Variance Inflation Factor (VIF) were used for determining the adequacy of the estimated regression model. The value of calculated (DW) was 1.904 and F value was 2.883, the model was significant at 5 % level. Therefore, it can be concluded that multiple regression model is fitted. According to the results, household size of each household was significant at 5 % level. Therefore, the household size is influential factor of food expenditure for each household.

Key words: influencing factors, economically active members, poverty alleviation

INTRODUCTION

Myanmar is one of the countries in Southeast Asia, at 676,578 sq km. Myanmar is traditionally an agricultural country and agriculture sector remains as a major contributor to GDP, and its share of export earnings is about 40%. Agriculture sector provides employment to more than 60 percent of work force. In addition food security for the people and raw material production for domestic agro-based industries are heavily depending on the agricultural sector. At the territory level, Myanmar is administratively divided into 17 states/regions. The states/regions are sub-divided into 64 districts which are further divided into 324 townships. The townships are subdivided into 13759 village tracts. According to survey data 2015, there are 70838 villages in Myanmar. The rural population is more than urban population. Over seventy percent of the people are now living in rural area. The development of every village helps the development of our nation. The government is implementing the projects in a speedy way for rural development.

One of the projects is village development planning (VDP) which is an initiative of the Department of Rural, Ministry of Agriculture, Livestock and Irrigation. The initiative was launched in early 2015 with the aim to support and facilitate the process of people-centered participatory village development planning, identification of village development priorities

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and mobilization of financing for meeting funding needs for the assessed priorities. Another project named Saemaul Undong, New Village Movement is an important movement for the development of the rural community. Saemaul Undong is a national campaign that positively branded the government's major program of rural modernization and development and mobilized every village, and nearly every village. Saemual Undong is an autonomous movement among villagers in which villagers are the main implementation bodies and the government is a supporter for its successful implementation.

SMU projects have been starting in Myanmar since 2012. All of SMU activities in villages are implemented under the guiding of Ministry of Co-operatives, now Ministry of Agriculture, Livestock and Irrigation. It undertakes all activities and could implement the SMU model village projects successfully from 2012 to until now. Socio economic status is determined by and individual's achievements in: education, employment and occupational status, and income and wealth.

OBJECTIVE OF THE STUDY

The objectives of the study are:

(i) to review socio-economic conditions for study area

(ii) to analyze the impact of socio economic factors on poverty alleviation for study area

SCOPE AND LIMITATION OF STUDY

The scope of this study is to investigate the socio economic status of Byauk Yoe village tract, Twantay Township, Yangon Region. On April 2019, a sample survey was conducted in Byauk Yoe village tract. Out of 65 village tracts in Twantay Township, the present study is focused on Byauk Yoe village tract because it is one of the remote villages and the transportation is quite easy to Hlaing Tharyar Township and Twnatay Township with the purpose of noticing the development of the villages.

METHOD OF STUDY

The research design was a survey design. The research methods adopted in this study were a condition of both descriptive and analytical type. Households for this study were selected by using systematic sampling method and level of precision is 5 %. We use multiple regression analysis and binary logistic regression analysis.

This analysis is based on the socioeconomic survey (SES) which is sample of households in the Byauk Yoe village tract. The data for this study come from a sample of households 140 selected from 369 households, which were approximately 40 % of total households. The survey was conducted by using well-structured questionnaire.

SOCIO ECONOMIC BACKGROUND AND CURRENT SITUATION OF BYAUK YOE VILLAGE TRACT

Byauk Yoe village is situated in Twantay Township, Yangon Region. Byauk Yoe village is included in Byauk Yoe village tract, consisting of Byauk Yoe village, Ywar Lay village and Myat Ni Gnone village. As geographic location aspect, it has plantable land 950 acres. There are 369 households, and total population 1529 people. As transport of this village, the roads are dirt roads which connect the main road close to Twantay Township.

During the three seasons, they usually used the unfortified roads. Regarding the infrastructure for education, there is one Basic Education Middle School and two Basic Education Primary Schools and total students 307 people and 98 people and teachers 12 people and 98 people respectively. The study area has no one health care centre. The nearest hospital is Twantay General Hospital in Twantay Township. There is no market but some households operate a retail shop or a mini store.

Descriptive Statistics for Households of Survey Data in Byauk Yoe Village Tract

The data for this study come from a sample household 140, total population 676 people selected from 369 households. The survey data have been assigned to three age groups according to Myanmar official classification. According to this classification, the largest age group was recorded for the 15 to 64 years class. The lowest age group was recorded 65 years old and above.

Table (1) shows that the age groups are officially categorized into three classes introduced by the Myanmar official classification. They are 0 to 14 considered as children, 15 to 64 considered as working class and 65 and above considered as dependents.

Therefore, the number of persons in working age group was larger than that of dependents in this village. In other words, it can also say that the volume of labor force was high in this township. The gender count as represented in Table (1) was 308 males and 368 females. The gender ratio was approximately 1:1 in the village. There were 84 males per 100 females.

Table (1) Selected Age-Groups by Gender of Myanmar Official Classification

No.	Age Group	Population		%	
		Male	Female	Male	Female
1.	0-14	81	104	26	28
2.	15-64	208	248	68	68
3.	Over 65	19	16	6	4
	Total	308	368	100	100

Source: Survey Data, 2019

Labour Force in the Village

The number of economically population (workers) and dependent population, counted among the family members, resulted in ratio 56 % workers versus 44 % dependent or inactive of total respondents in study area. See Table (3). Table (2) shows that the population 10 years and over by occupational status and gender in the village. According to the table, total own account workers (agribusiness) were males 63 and 35 were females and percent 14 %. Own account workers (trade) were males 8 and females 1 and 1 %. Private employee was males 5 and female 8 and 2 %. Similarly unpaid family workers were 12 %. Full time students were 14 %.

Table (2) Population 10 years and Over by Occupational Status and Genders in the Village

Occupational Status	Male	Female	Total	%
Own account workers (agribusiness)	63	35	98	14.50%
Rental acre workers	29	5	34	5.03%
Agribusiness	1	3	4	0.59%
Livestock	3	12	15	2.22%
Own account worker(trade)	8	1	9	1.33%
Employee (private)	5	8	13	1.92%
Government employee	3	6	9	1.33%
Unpaid family worker	38	45	83	12.28%
Others	51	22	73	10.80%
Sought work	25	16	41	6.07%
Did not seek work	24	34	58	8.58%
Full time students	60	34	94	13.91%
Pensioner, retired , elderly	39	45	84	12.43%
Disabled	2	3	5	0.74%
Children	26	30	56	8.28%
Total	377	299	676	100%

Source: Survey Data, 2019

Table (3) Worker's Participation of the Study Area

No.	Gender	Active		Dependency	
		Population	%	Population	%
1.	Male	226	60	151	51
2.	Female	153	40	146	49
	Total	379	100	297	100

Source: Survey Data, 2019

Marital Status of the Village

Table (4) shows that marital status of the village. According to this table, there were 368 women. Of these 143 were married. There were 308 men. Of these, 147 were married.

Table (4) Population Aged 15 Years and Over by Marital Status in the Village

Marital	Male	Female	Total	%
Single	157	215	372	55.03%
Married	147	143	290	42.90%
Widowed	4	9	13	1.92%
Divorced/ Separated	0	1	1	0.15%
Total	308	368	676	100%

Source: Survey Data, 2019

Education and Health Status of the Village

There is one Basic Education Middle School and two Basic Education Primary Schools exist in the study area. The number of teachers and school children are as shown in Table (5). The level of literacy is important to define the socioeconomic structure of the households in the study region. Most of the elder generation (i.e. those who fall into the age groups 51-55, 56-60 and above 61 years) were recorded as monastery level education, whereas most members of the working class, of both males and females, fell in the primary and middle school education level due to struggle for their livelihood. According to Table 6, the overall literacy percentage in the study area was recorded 97.5 %. 2.5 % of the population was classified as illiterates. Most of the literates visited primary and middle level school. According to Table (6), total population who completed primary school was 60 males and 124 females. Middle school level populations was 174 and 83 were males and 91 were females. University graduates constituted 24 %. Post graduates constituted 2.1%.

Table (5) Primary, Middle and High School level Students by Gender and Teacher-Student Ratio in the Village

Educational Level	Students	Teachers	Teacher-Student Ratio
Primary	98	9	10:1
Middle	307	12	26:1

Source: Survey Data, 2019

Table (6) Population of Literacy and Educational Status in Village

Educational level	Male	%	Female	%	Population	%
Monastery	67	21.7	49	13.3	116	17.13
Primary	60	19.4	124	33.7	184	27.18
Middle	83	26.9	91	24.7	174	25.70
High	45	14.6	29	7.9	74	10.93
Graduate	10	3.2	14	3.8	24	3.55
Post graduate	3	1.0	11	3.0	14	2.07
Vocational Training	32	10.4	42	11.4	74	10.93
Total literate	300	97.1	360	97.8	660	97.49
Illiterate	9	2.9	8	2.2	17	2.51

Source: Survey Data, 2019

Regarding health, the study area has no one health care center. The nearest hospital is Twantay General Hospital in Twantay Township. Flu is prevalent, especially in the wet season. In the cold months, bronchitis and pneumonia are very common.

Housing Condition in the Village and Electric Power Supply

The structure of houses varies between households, in terms of the roof material and shape, the construction of the walls and floors. The results show that the predominant roof structure used in the study area was thatch although tin (mental sheet) was used more frequently in village. The predominant wall material was bamboo and wood in village. Those were probably chosen, depending on the availability and cost.

In the study area, only Byoke Yoe village can use electricity. Most of them use battery for lighting and others. Some residents use their generators for their own needs and for the supply their neighborhoods. According to the survey data, most of households used the fly-proof toilets.

Water Supply and Sanitation Condition

The inhabitants of the village have access to two types of water sources;

1. Surface water, no cover (lake)
2. Ground water (tube wells)

The most used water source is lake water for drinking water and household water. They did not test the PH level of lake water. Another finding of these interviews was that none of the respondents uses separate sources for drinking and household water. There are 99.7 % of households were used no covered lake water for drinking and household use. The lake water has not been tested for all of the usages.

Firewood Consumption (or) Fuel for Cooking

According to the results 80 % of households used firewood. Wood fuel is the most used energy source for cooking. 65 % of all households interviewed, collected the wood themselves. 35 % bought their firewood requirement from different suppliers. There suppliers cut wood from near forests, either legally or illegally. They all use the traditional three legged stove and cook in open air during the cold and dry season.

Transportation and Communication

The side roads connect the neighborhood villages are dirt roads. During the wet season, these unfortified roads are in real bad condition. Therefore, they are used the boats or motor boats along the stream. It chased to the main road close to Twantay Township. During the dry and cold seasons they used the unfortified roads. The inter-village connection roads are mostly used by using cars, small lorries, small tractors, motor cycles, bicycles. To facilitate the transportation of vital goods, roads often are repaired on a self-help basis by the local authority. The finding was the possession of motorcycles is dominant over other all transportation vehicles in the village. Similarly the possession of bicycle is the highest dispersal. The possession of cars in the study area is 8 households. Regarding the telecommunication, there is at least one mobile telephone in every household.

Household Size and Expenditure for Food

According to results there are 31 households which have 3 members and it is the most frequently and percentage 22.1 %. The average family size was 5. Family life, depending on the number of family members, was closed as high level for the family with 1 to 3 members,

as medium level, for the families with 4 to 6 members and as well as low level for families with 7 and above. Therefore, the household size was medium level in this village. Most of the monthly expenditure fell between 50,000 to 100,000 kyats and the percentage was 27.9 %.

Economic Factors

The economic activities of the study area are divided into three sectors. They are

(1) Agriculture sector

(2) Self-employment sector

(3) Other sectors

Workers of these sectors in addition to their main tasks often take up casual jobs and small scale animal husbandry, cultivation of crops or open retail shops.

Agriculture Sector

Agriculture is the main income generating activity in the study area. 20.1 % of the total population in the interview areas engaged in agriculture. Paddy is the main cultivated crop. There are 950 acres plan table lands for cultivating. Types of cultivated land are generally divided into three classes.

- Le lands, which are mostly found in the village. Farmers cultivate paddy, and the amount of harvest depends on the rainfall.
- Ya lands, which are found along the streams where
- Garden lands, which include fruit gardens, home gardens and vegetable gardens, where mangoes and vegetable are grown.

Agriculture practice is bi-crop character. Generally the rainfall is regular and abundant, sometimes precipitation is insufficient to plough and the rain comes too late for planting. There is no dam and cannel system to irrigate the farms. Therefore farmers totally depend on rainfall for cultivation. Most of the farmers in the interview area own 4 to 10 acres of farm land. Some of the land owners have no sufficient manpower resources for farming. They hire laborers during the farming seasons. The labor wages for adult males is 7000 kyats (approximately $ 5) and for adult female is 4000 kyats (approximately $ 3) per day. These incomes however vary, dependent on the working duration, determined by the farm size and type. Most of the farmers in the interview area use cultivated machinery.

All farmers in the interview area earn their extra income by undertaking side jobs. The small scale animal husbandry was found to be one of the most common side-jobs. It is not only a source for family food but also for market. Some farmers undertake causal jobs by renting their cultivated machinery for cultivating and so on. Some operate a retail shop or a mini store.

Self-Employment Sector and Other Sector

97 people operates self-employment sector. It represents 14.35 % of the sample data. This sector included rice mill owners, tailors. 101 people operate other sectors which include employee (private).

Descriptive Statistics for Household Heads in the Village

Gender – Age Structure, Marital Status and Educational Attainment

According to the results there are 129 males headed households and 92 %. The ratio of the male headed households was higher than that of female. As the results 86.4 % of male household heads were married and 1.4 % of female household heads were married. Education is an important determinant in earnings. Most of the household heads were primary education level and 45 % of study area.

ANALYSIS OF SOCIOECONOMIC FACTORS OF HOUSEHOLD IN THE STUDY AREA

Multiple Regression Model for Sample Households

Multiple regression analysis can be applied to investigate the influencing factors of food expenditure in sample households. To analyze the multiple regression model, the food expenditure of sample household was used as dependent variable and gender of household head, household size, number of economically active members, occupation of household head in each household were used as independent variables.

The estimates multiple regression model is

$$\hat{Y}_t = b_0 + b_1 X_{1i} + b_2 X_{2i} + b_3 X_{3i} + b_4 X_{4i}$$

In constructing the model, the variables are noted as:

Y_i = Food expenditure in i^{th} household

X_i = Vector of independent variable

$= [X_{1i}, X_{2i}, X_{3i}, X_{4i}]$

X_{1i} = 1 if household head is male (0 if household head is female)

X_{2i} = number of family members

X_{3i} = number of labor force (economically active) members in household

X_{4i} = Occupation of household head

Durbin-Watson (DW) and Variance Inflation Factor (VIF) were used for determining the adequacy of the estimated regression model. The value of calculated (DW) was 1.904 and F value was 2.883, the model was significant at 5 % level. Therefore, it can be concluded that multiple regression model is fitted. The results of estimated multiple regression model were shown in Table (7).

According to the results in Table (7), household size of each household was significant at 5 % level. Therefore, the household size is influential factor of food expenditure for each household.

Table (7) Relationship between the food expenditure of sample household and gender of household head, household size, number of economically active members, occupation of household head in each household

Independent Variables	B	Sig
Gender of Household Head	-55053.374	0.539
Number of Family Member	35391.524	0.01*
Number of Labor Force Member	2528.999	0.911
Occupation of Household Head	157.312	0.936
Constant	65763.533	0.557
F value = 2.883		

Source: Survey Data, 2019

Note: * represent 5 % level of significance

Binary Logistic Model for Poor Households in the Sample

According to the 140 sample households, 3.6 % of the households were poor households since their monthly food expenditures per head were below the food poverty line in Myanmar which was the value of 1590 kyats per day for individual in 2017.

Binary logistic regression analysis was applied to investigate the influential factors of poor households. To fit the binary logistic regression model, the poor household, designated by 1 if household food expenditure was below the poverty line in Myanmar 1590 kyats per day for individuals was used as dependent variable and household size, gender of household head, age of household head, household head's occupation were used as independent variables. ț he probability that the households' expenditure is above or equal to the poverty line. That is ,

$$\text{Poverty line} = P(Y_i = 1/X_i) = \frac{e^{X_i'\beta_j}}{1+e^{X_i'\beta_j}}$$

In constructing the model, the variables are noted as:

Y_i = 1 if households' food expenditure for i^{th} household is below the food poverty line

= 0 otherwise

X_i = Vector of independent variable

= $[X_{1i}, X_{2i}, X_{3i}, X_{4i}]$

X_{1i} = Number of family members

X_{2i} = 1 if household head male (0=female)

X_{3i} = Age of household head

X_{4i} = Household head's occupation

According to the results in Table (8), number of household members was significantly at 5 % level. It indicates that the number of family member was influential factor for household poverty.

Table (8) Results of Binary Logistic Model

Independent Variables	B	S.E	Wald	df	Sig
Number of Family Member	-1.331	.557	5.702	1	0.017
Gender of household head	-.631	1.756	.129	1	.719
Age of household head	.051	.033	2.347	1	.125
Household head's occupation	-.275	.191	2.091	1	.148

Source: Survey Data, 2019

CONCLUSION AND RECOMMENDATION

A key finding of this study is household size was influential factors for food poverty of each household. Although they were not suffered from food poverty, their living standards were low conditions. Because of working agribusiness, most of them are no worried about main food especially rice and vegetables. Another pressure is on the underdeveloped infrastructure hamper the chances for the residents to structure solid bases for their families' well-being. Limitation for successful farming by the lack of irrigation systems form barriers and lack of technical knowledge to generate better income than basic needs to survive.

Furthermore the fundamental issues, the absence of social security systems in parallel to a poorly developed health care infrastructure, as well as traditional minted thinking, that children are the only way to secure the survival of the elder, lead to high birth-rates. One of the results of this study was family size and expenditure, as one of the fundaments for human well-being, are counter proportional. Most of the labors of this village have less successful labor market transitions because they have lower higher education level. The children from low level of socio economic survey families are more likely to leave school early and to have difficulties with their studies and display negative attitudes to school. Therefore it has lower retention rates.

Parent may have a low income and a low-status occupation transmit high educational aspirations to their children. Both components social factors and economic factors are important for setting the higher level of their children educational outcomes. Students from non-metropolitan areas are more likely to have lower educational outcomes in terms of academic performance and retention rates than students from metropolitan areas (Cheers, 1990; HREOC, 2000). Affecting factors to education in rural areas include costs, the availability of transport and levels of family income support. Furthermore inequality exists with regard to the quality of the education that rural students receive. Regarding the income generation, most of the households were working agriculture as their main tasks with traditional ways and thinking. One point of less successful income generation is lack of technology for their profession. It is a challenge to develop their life style. They have less recreational and educational attainment.

As positive finding during the survey was the educational sector has significantly improved over the past decade. All scholars today have access to basic and middle school education. Also high school level education can be achieved without relocation. The limitation factors for more extensive use of the educational offering are again the family incomes. Great affords are needed to improve the infrastructure as base for all other progress. This includes in the first step the construction of roads, to enable good transport of goods from one place to another. As important factor is the need to supply electric power to the region and give access to it for all inhabitants. This will ease the supply of freshwater from tube wells for the people and such decrease health risks from late water as cooking and drinking water source. Electric supply will also enable people to pump water from the late and irrigate farmland on the fringe. So the harvests can be improved, such increasing family incomes and reducing the needs to enlarge farmland areas at the expense of protected forests. Higher awareness of the producers has direct impact an income.

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