

**POVERTY INCIDENCE OF DIFFERENT
SOCIAL GROUPS IN THE NORTHERN
STATES OF MALAYSIA**

by

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INSIDEN KEMISKINAN DALAM KALANGAN KUMPULAN-KUMPULAN SOCIAL DI NEGERI-NEGERI UTARA MALAYSIA

ABSTRAK

Kajian ini adalah untuk mengenalpasti insiden kemiskinan antara kumpulan-kumpulan sosial yang berbeza mengikut strata, kumpulan etnik, tingkat pendapatan dan tahap pendidikan serta untuk menyiasat faktor-faktor yang mempengaruhi kemiskinan dalam kumpulan-kumpulan sosial negeri-negeri di kawasan utara Semenanjung Malaysia. Untuk tujuan ini, tiga pengkelasan Pendapatan Garis Kemiskinan (PGK) digunakan iaitu (1) PGK Nasional, (2) PGK *Asian Development Bank* (ADB), dan (3) PGK ADB *vulnerability adjusted* untuk menentukan individu yang miskin. Kajian ini menggunakan data Bancian Pendapatan Isi Rumah (HIS), daripada bancian Jabatan Perangkaan Malaysia (DOS) untuk tahun 2009 dan 2012 bagi negeri-negeri di utara Semenanjung Malaysia. Walau bagaimanapun, kelompok kemiskinan masih wujud, terutamanya di kawasan luar bandar dan di beberapa negeri di Malaysia Timur, Pantai Timur dan Negeri-negeri Utara. Objektif umum kajian ini adalah untuk menyiasat masalah kemiskinan kumpulan-kumpulan social yang berlainan di negeri-negeri utara Malaysia. Secara khusus, matlamatnya adalah menilai masalah kemiskinan di kalangan kumpulan social yang berbeza di strata, kumpulan etnik, tahap pendapatan dan pendidikan untuk mengkaji faktor penentu kemiskinan.

Untuk mengkaji penyebab kepada kemiskinan, kaedah ekonometrik iaitu analisis Logit digunakan. Manakala bagi ketidakseimbangan pendapatan pula akan menggunakan analisis Indeks Theil. Kaedah Indeks Theil sebenarnya digunakan adalah kerana ia mampu mengira ketidaksamarataan dalam kumpulan-kumpulan yang berbeza. Di akhir kajian ini, didapati terdapat pengurangan insiden kemiskinan pada 2012 dan 2009. Seterusnya, kajian juga menunjukkan ada perubahan di dalam kumpulan sosial, dan demografi apabila insiden kemiskinan dianalisis menggunakan tiga PGK yang berbeza. Kajian ini mendapati bahawa jurang perbezaan yang luas dalam kemiskinan antara kawasan bandar dan luar bandar dan jantina telah berkurangan pada tahun 2009 dan 2012.

POVERTY INCIDENCE OF DIFFERENT SOCIAL GROUPS IN THE NORTHERN STATES OF MALAYSIA

ABSTRACT

This study assesses the poverty incidence among the different social groups in strata, ethnic groups, income level, and education and investigates the factors that influence poverty of the different social groups in the northern states of Malaysia. For this purpose three Poverty Line Income (PLI); National PLI, Asian Development Bank (ADB) PLI and ADB vulnerability adjusted PLI determined to specify the poor. This study uses the Household Income Survey (HIS) data that was conducted by the Department of Statistics for 2009 and 2012 for northern states of Malaysia. Data has shown that Malaysia has been very successful in eradicating poverty from more than fifty percent in the early 70s to less than 10 percent now. Nevertheless, pockets of poverty still exist, particularly in the rural areas and in a few states in East Malaysia, East Coast and the Northern States. The general objective of the study is to investigate the poverty incidence of the different social groups in the Northern states of Malaysia. Specifically, the objectives are to assess the poverty incidence among the different social groups in strata, ethnic groups, income level and education to examine the determinants of poverty. To examine the determinants of poverty, the econometric technique employed is Logit model. This study has shown that there has been a

reduction in poverty incidence in northern states of Malaysia in 2009 and 2012. In addition, there are changes in social demographic groups when poverty incidence analyzing with different PLI. This study found that the wide disparity in poverty between the urban and rural areas and gender in both levels actually reduced in 2009 and 2012.

CHAPTER 1

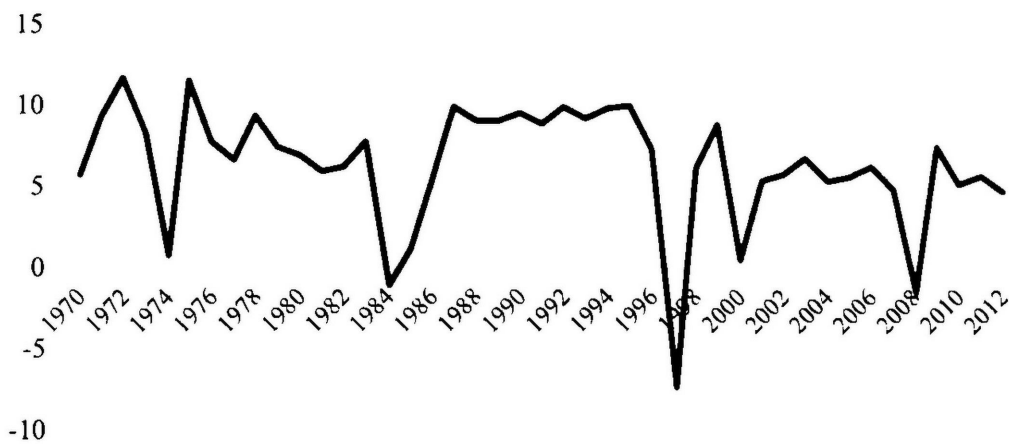
INTRODUCTION

1.1 Introduction

Malaysia is one of the countries in South East Asia that has shown remarkable growth over the past years, an example of a successful economic transformation, from a backward agrarian society in the early 70s to a full-potential developed country by the year 2020. From independence in 1957 until the Asian financial crisis, Malaysia's economic development is impressive by any measure. Its Gross Domestic Product (GDP) growth rate hit the ten percent mark on four occasions: 1973, 1977, 1989 and 1997 (Figure 1.1). High growth in those years reflects a variety of factors, in particular a close partnership between the government and the private sector through initiatives such as Malaysia Incorporated and privatization.

Openness to the world economy is a major contributing factor in Malaysia's phenomenal economic development. As a result of targeted liberalization and industrialization measures, Malaysia benefits tremendously from increased manufactured exports and improved consumer welfare. However, being an open small economy has also made Malaysia susceptible to external shocks, as reflected in Figure 1.1. This includes the energy crisis of the 1970s, the 1980-1982 recessions in the United States, the 1997-1998 Asian financial crises, the dotcom crash in 2000-2002 and the latest global financial crisis that began in 2008. For the first quarter of 2010, Malaysia's economy expands rapidly by recording a double-digit growth of 10.1 per cent, while the average growth rate is 4.3 per cent per year from 2001 to 2009. An increase in export and buoyant performance of the manufacturing and services sectors contributed to Malaysia's economic growth. (Department of Statistics Malaysia 2011).

Figure 1.1: Malaysia's economic growth trends (1970 – 2012)



Source: Economic Planning Unit (2015)

On the other hand, the economy of Malaysia has a great role in GDP, Table 1.1 demonstrates the differences of GDP per capita between the Malaysian states. The second biggest state in term of their percentage of GDP after KL is Penang since industrial zone and manufacturing sector is highly concentrated in Penang. In 2005, about 9.3 percent of the total GDP per capita has been earned by Penang. However, the ratio of Penang reduced to 8.21 percent in 2012. On the other hand, Kedah contributed about 3.40 percent of the GDP in 2005 and reached to 3.51 percent in 2012. The same situation happened in Perak; in fact, there was a smooth increase from 4.27 percent in 2005 to 4.56 percent in 2012.

Although these changes are small but it makes great roles throughout the whole economy. The contribution of Perlis to GDP was about 4.42 percent in 2005 and has been declined to 4.02 percent in 2012. The percentage of GDP per capita in Kuala Lumpur was about 14.70 percent in 2005 the number increased to 16.40 percent in 2012. If we compare the GDP percentages of 2005 and 2012, we notice that the GDP per capita has fallen in six states, namely: Johor, Penang, Perlis, Selangor, Terengganu, and Labuan. In addition, in 9 states, namely: Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Perak, Sabah, Sarawak and WP Kuala Lumpur, the GDP per capita

has shown improvements and an increase in trend. Based on the Table 1.1 about Malaysia's GDP, can say Malaysia's GDP has been up and down experienced. In 2009, with -1.5 percent Malaysia had the lowest GDP ratio. It is mainly due to global financial crisis. At the end of the year 2009, subsequently, recovered to record a positive GDP growth to 7.4 in 2010. Overall Malaysia's GDP has been increased in two periods, first from 5.3 percent in 2005 to 6.3 percent in 2007 and second is from -1.5 percent in 2009 to 7.4 percent in 2010.

Table 1.1: Gross Domestic Product per capita by state %

	State	2005	2006	2007	2008	2009	2010	2011	201
Northern States	Kedah	3.40	3.44	3.54	3.45	3.50	3.51	3.59	3.5
	Pulau Pinang	9.30	9.41	9.13	8.94	8.43	8.59	8.21	8.2
	Perak	4.27	4.20	4.32	4.39	4.43	4.43	4.52	4.5
	Perlis	4.42	4.30	4.22	4.17	4.25	4.13	3.96	4.0
Central States	WP Kuala Lumpur	14.70	14.45	14.46	14.89	15.98	15.87	15.88	16.4
	Negeri Sembilan	7.20	7.24	7.16	7.15	7.17	7.31	7.30	7.2
	Selangor	8.14	7.80	7.67	7.76	7.97	8.04	7.87	8.0
Southern States	Johor	5.65	5.40	5.46	5.35	5.29	5.45	5.50	5.4
	Melaka	7.07	7.01	6.82	6.87	7.11	7.24	7.25	7.4
East Coast States	Pahang	5.73	5.75	5.87	5.93	5.76	5.88	6.08	5.8
	Kelantan	2.11	2.14	2.23	2.27	2.36	2.38	2.42	2.3
	Terengganu	5.50	5.62	5.67	5.57	5.35	5.26	5.18	5.0
Sabah, Sarawak & Labuan	Sabah	3.86	3.85	4.11	4.65	4.35	4.38	4.44	4.2
	Sarawak	8.76	8.82	8.96	9.85	8.76	8.73	9.17	8.9
	WP Labuan	9.20	9.93	9.80	8.25	8.74	8.28	8.61	8.8
Malaysia		5.3	5.6	6.3	4.8	-1.5	7.4	5.1	5.1

Source: Department of Statistics, Malaysia (2013)

1.2 Poverty Incidence in Malaysia

Malaysia has been applauded by many international organizations for her success in poverty eradication from more than 50 percent in the 70s to less than 10 percent recently. Table 1.2 shows the statistics of poverty incidence over the years.

Table 1.2: Poverty incidence in Malaysia %

Year	1970	1979	1980	1983	1984	1989	1992	1997	2002	2007	2009	2012
Malaysian Citizens	49.3	37.4	29.0	30.3	20.7	16.5	12.4	6.1	6	3.6	3.8	1.7

Source: Economic Planning Unit (2013)

While poverty in general has reduced, poverty is still an important issue in a few areas, particularly in Sabah and Sarawak in East Malaysia, Kelantan and Terengganu in the East Coast of Malaysia as well as Perak, Kedah and Perlis in the Northern part of Peninsular Malaysia (Table 1.3). There is impressively distinct between the state in incidence poverty as can be seen from Table 1.3, during the period 1970 to 2012, And it is highlighted with Kelantan with the highest rate of incidence poverty by 76.1 percent in 1970, as respects that it has been a remarkable achievement in reduce incidence poverty in 2012 whit 2.7 percent (Table 1.3). Same trend goes with Terengganu and Kedah in rate of 68.7 percent and 63.2 percent for 1970 and same amount 1.7 percent for 2012, respectively.

Table 1.3: Poverty incidence in Malaysia, by states %

State	1970	1979	1984	1989	1992	1997	2002	2007	2009	2012
Johor	35.07	18.2	12.2	9.8	5.6	1.6	2.5	1.5	1.3	0.9
Kedah	63.2	53.8	36.6	29.9	21.2	11.5	9.7	3.1	5.3	1.7
Kelantan	76.1	55	39.2	29.6	29.5	19.2	17.8	7.2	4.8	2.7
Melaka	44.9	20.4	15.8	12.4	8.5	3.5	1.8	1.8	0.5	0.1
Negeri Sembilan	44.8	26.3	13	9.1	8.1	4.7	2.6	1.3	0.7	0.5
Pahang	43.2	26.9	15.7	10	6.9	4.4	9.4	1.7	2.1	1.3
Pulau Pinang	43.7	19.7	13.4	8.7	4	1.7	1.2	1.4	1.2	0.6
Perak	48.6	30.5	20.3	19.2	10.2	4.5	6.2	3.4	3.5	1.5
Perlis	73.9	63.1	33.7	17.4	19.8	10.7	8.9	7	6	1.9
Selangor	29.2	14.5	8.6	7.6	4.3	1.3	1.1	0.7	0.7	0.4
Terengganu	68.7	53.1	28.9	31.3	25.6	17.3	14.9	6.5	4	1.7
Sabah & W.P.Lbuan	n.a	40.7	33.1	29.7	27.8	16.5	16	16	19.2	7.8
Sarawak	n.a	47.8	31.9	21	19.2	7.3	11.3	4.2	5.3	2.4
W.P.Kuala Lumpur	n.a	a	4.9	3.7	1.7	0.1	0.5	1.5	0.7	0.8
W.P.Putrajaya	n.a	n.a	n.a	n.a	n.a	n.a	n.a	-	-	-

Source: Economic Planning Unit (2013)

n.a: Not applicable

- : No cases

a: Kuala Lumpur is gazzeted as a Federal Territory on 1 February 1974. Data for W.P. Kuala Lumpur for the year 1979 is part of Selangor.

1.3 Poverty Line Income in Malaysia

Malaysia has had tremendous achievement in poverty eradication. In fact, Malaysia has embarked on a number of socioeconomic policies as a platform towards poverty eradications. Poverty in Malaysia is measured based on the Poverty Line Income (PLI). PLI as a measurement of absolute poverty has been used since 1970s, PLI is determined based on the gross monthly income, which encompassed three major components, food, clothing and footwear and other non-food items as to meet the minimum requirements of a household. Furthermore, a household considered poor if its income falls below a specified poverty line and the index adjusted periodically to account for yearly inflation. Table 1.4 shows the PLI of Malaysian from 1990-2012.

Table 1.4: Poverty Line Incomes, 1990-2012 (RM)

Year	1990*	1995*	1999*	2002*	2004	2009	2012
Peninsular Malaysia	370	425	510	529	661	760	830
Sabah	544	601	685	690	888	1048	1090
Sarawak	452	516	584	600	765	912	920

(RM per month per household)*

*Adjusted based on an average household size of 4.6 in Peninsular Malaysia, 4.9 in Sabah, and 4.8 in Sarawak.

Sources: Malaysia Economic Planning Unit (2005, 2010, 2013)

1.4 Northern States of Malaysia

The Northern part of Peninsular Malaysia consists of four states, Perlis, Penang, Kedah, and Perak. Geographically, the northern states of Peninsular Malaysia comprise of total area of approximately 17,816 square kilometers. The northern states have experienced rapid population growth since 1970; even so, the data has shown that the average annual growth rate is declining in tandem with the declining rate of fertility. The northern states population density accounted for 32.67 percent out of the total population in 1970 but decrease slightly in its percentage, which is 26.15 percent in 2013. The average annual growth rate for 2012-2013 is 1.15, 0.82, 0.52, and 1.34 percent for Kedah, Perak, Perlis and Penang respectively.

1.5 Poverty Incidence in the Northern States of Malaysia

The northern states were commonly associated with poverty, especially during the colonization. The northern states' population is highly concentrated in the rural area and primarily involved in the agricultural sector, which has less capital value, and economically less developed compared to the urban area with greater modernization and capitally rewarding. Reasons being each ethnic group segregated economically and geographically for instance, Bumiputeras are concentrated in the rural areas and they involved in the agricultural sector, the Chinese are concentrated in urban areas

and almost involved in the service sector. Hence explains the pattern of poverty incidence in Malaysia generally and specifically in the Northern states. Poverty incidence in Perlis has decreased from 73.9 percent in 1970 to 1.9 percent in 2012, which deemed to retain the highest poverty incidence in the Northern states. Penang has the lowest poverty incidence, decrease in its percentage from 43.7 percent in 1970 to 0.6 percent in 2012 (Table 1.3). A similar pattern can be seen in the case of hardcore poverty incidence in the Northern states of Malaysia. The hardcore poverty incidence has reduced to 0.1 percent in Kedah, 0.2 percent in Penang and Perak followed by 0.5 percent in Perlis in 2012; these impressive achievements were associated with a sustained high growth rate except during the recession period and during the occurrence of the Asian financial crisis 1997-1998.

1.6 Poverty incidence in Malaysia by Strata

According to Thang and Baharuddin (2011), all South-East Asia Countries have done remarkably well in both economic growth and poverty reduction such as Malaysia, Indonesia, Thailand, and Vietnam, and all countries indicated that rural poverty incidence is much higher than urban poverty incidence. Table 1.5 shows that the incidence of poverty in Malaysia among urban and rural area. Incidence of poverty in both urban and rural has shown a remarkable decrease. According to Thang and Baharuddin (2011), in the year 1970, more than half of households were classified as poor in the rural areas. Rural poverty incidence has been falling from 58.7% in 1970 to 3.4% in 2012. Urban poverty incidence is relatively lower, falling from 21.3% in 1970 to 1 percent in 2012. It is indicated Malaysia is success to eradicate poverty, but still a large gap between the rural and urban incidence poverty exist.

Table 1.5: Poverty incidence in Malaysia, by strata %

Year	1970	1979	1980	1983	1984	1989	1992	1997	2002	2007	2009	2012
Urban	21.3	17.5	12.6	11.1	8.5	7.1	4.7	2.1	2.3	2	1.7	1
Rural	58.7	45.8	37.4	41.6	27.3	21.1	21.2	10.9	13.5	7.1	8.4	3.4

Source: Economic Planning Unit (2013)

Table 1.6 shows that the incidence of poverty in Malaysia among ethnic group. In 1970, out of total, 65% of Bumiputeras were poor. In 1970, poverty incidence among Bumiputera was higher compared to the other ethnic groups. However, we should not ignore the high number of Bumiputera in the population. Although, Table 1.6 as a whole shows the poverty incidence among all the races reduced since 1970, it can be noted that proportion changes of the poverty are highly different among the ethnic groups. Bumiputera has a largest difference against other ethnics. Poverty incidence declined from 64.8% in 1970 in to 2.2% in 2012, which show a 62.6 unit change difference between these periods. Chinese with 26 % incidence of poverty in 1970 has declined in 0.3 % in 2012 and show 25.7 unit difference. Indian with 39.2% poverty incidence in 1970 and 1.8% poverty incidence in 2012 showed 37.4-unit change.

Table 1.6: Poverty incidence in Malaysia, by ethnic group %

Year	1970	1979	1984	1989	1992	1997	1999	2002	2004	2009	2012
Bumiputera	64.8	49.2	28.7	23	17.5	9	12.3	9	8.3	5.3	2.2
Chinese	26	16.5	7.8	5.4	3.2	1.1	1.2	1	0.6	0.6	0.3
Indians	39.2	19.8	10.1	7.6	4.5	1.3	3.4	2.7	2.9	2.5	1.8
Others	44.8	28.9	18.8	22.8	21.7	13	25.5	8.5	6.9	6.7	1.5

Source: Economic Planning Unit (2013)

1.7 Programs and Policies on Poverty Eradication

Programs and policies for poverty eradication have not been geared to tackle the issues of poverty on any particular states or group. The policies are geared for the benefit of the national population. Beginning with the New Economic Policy (NEP) introduced in 1970 all the way to the New Economic Model in 2010, policies and programs have been designed to ensure that all individuals in the nation benefit from the poverty eradication programs. The NEP is designed following the 1969 ethnic clashed mainly due to the economic imbalance of the different ethnic groups. NEP has two main agendas that are (i) to eradicate poverty regardless of ethnic group and (ii) to restructure the economic imbalance of the society.

Rapid growth is an important mechanism in achieving NEP goals; the society's economic status can be better improved with the increase in economic opportunities, which can be benefited through the distribution of wealth among the society. Job creation resulted from economic development will increase the poor's economic welfare and ultimately reduce the gap between ethnicity. The Millennium Development Goal in its objective has targeted to reduce extreme poverty by half by the year 2015 and this can be achieved by productive employment for all and by acquiring a decent job, this will boost individual's income level and eventually move them out of poverty. There is a significant improvement in the income distribution since the introduction of NEP in 1970. The percentage share of households living below the national poverty line (USD 8.50 per day in 2012) has decreased from more than 50 percent in the 1960s to less than two percent in 2014. (World Bank, 2015 as cited from; Zachau, Ulrich, et al.).

Increasing participation of the poor in a high skill employment would spur their social economic status. Assistance in development training program provided by the

government targeting for unskilled workers to transform them into skill workers is one of the measures taken to further ensure the capital ownership is equally distributed among society. Therefore, racial composition and Bumiputeras' share of capital can be better restructured. The government embraces nationalization policy in favor of achieving national unity, hence to achieve 30 percent share of capital by 1990, however, it was only raised to 20.3 percent from only 17 percent in 1970.

The government has spared its effort in improving the Malaysia economy by introducing National Development Policy (NDP) to its continues effort in addressing racial imbalance issues, which covers a ten year period from 1991 to 2000. The core policy of the NDP was an initiative geared to increase Malay participation in the economy and empowered political stability and national unity by encouraging Malaysians to engage intensely in economic activities. A significant progress has been observed and continues to build up after the establishment of the NEP which include various transformations in the privatization process and these reformation have subsequently turned down the role of the public sector thus contribute to the expansion of the Malaysia economy. Allocation of government spending has been reduced in the public sector engagement and moving towards private sector participation to further strengthen the economy.

Growth and equity coexist in attaining a well-balanced and equitable development. Among the objectives of the NDP were to reduce economic imbalances between states and between urban and rural areas as to promote national integration. In addition, Malaysian was benefited through a fair and more equitable wealth distribution and thus it provides the opportunity for the Malays to participate in the mainstream economy as to ensure a well-balanced development. In addition, the government also had adopted a different approach in encouraging Malay to participate

in the economy by emphasizing on entrepreneurship and leadership skill in a way of improving self-development, which enables them to compete equally, and less dependent on the government.

1.8 Problem Statement

Data has shown that Malaysia has been very successful in eradicating poverty from more than fifty percent in the early 70s to less than 10 percent now. Nevertheless, pockets of poverty still exist, particularly in the rural areas and in a few states in East Malaysia, East Coast and the Northern States.

While the government has come up with various programs and policies to tackle the issues of poverty, poverty remains unsettled issues in these areas. In the Northern states, Penang is seen as the most developed state with poverty incidence less than 2 percent. However, if Penang Island separated from its mainland, the poverty incidence could be higher. Incidentally, the poverty incidence of the nearby states such as Perak, Kedah and Perlis remains moderate and high in the rural areas. While many studies have been done on this topic, mostly focused on macro data and analysis poverty as aggregate. With household income data that focuses on income data, a better understanding of the issue would be achieved. As a multi ethnic community, social status of its people are usually evaluated on ethnicities based. It has been commonly concluded that the Bumiputeras are the last advantage group in regard to income and poverty. Apart from that ethnicity is also linked to many social groups such as social demographic (age, gender and marital status) and socio economic (education and location). Hence, study on the influence of social groups on the studies of poverty is interesting and important to further help understood the under tying focus of poverty.

As such, there is a dire need to study and understand the poverty incidence among the states in the Northern states of Malaysia so that it could provide policy makers with better policies to tackle the issues of poverty to meet the problem of certain states. As different states have, different social groups' policies cannot be one general policy that fits all. For example by policies to tackle location for Penang with more urban areas and Kedah with more rural areas. Or Penang with more Chinese and Kedah with more Bumiputeras.

Therefore, this research aims to examine the poverty incidence in the Northern States to understand the factors influencing poverty to be able to provide a better and clearer picture to the policy makers on the poverty incidence in Malaysia in general and in the Northern States specifically.

1.9 Research Questions

The study aims to answer the following research questions:

- i. How different is the poverty incidence among different social groups in the Northern States of Malaysia?
- ii. What are the factors that influence poverty of the different social groups in the Northern States of Malaysia?

1.10 Research Objectives

The general objective of the study is to investigate the poverty incidence of the different social groups in the Northern states of Malaysia. Specifically, the objectives are:

- i. to assess the poverty incidence among the different social groups in strata, ethnic groups, income level and education
- ii. to examine the determinants of poverty

1.11 Operations Definitions

- Poverty incidence: look at the percentage of people living below poverty line income as measure by National PLI, ADB PLI and ADB Vulnerability Adjusted PLI
- Social groups: refer to different socio economic and socio demographic profile of responses such as Age, Gender, Marital and Ethnicity
- Poverty line income: PLI specifies the poor, based on the level of income; individuals with income below the PLI are considered as poor.

1.12 Significant of Research

Based on 1st hand household income survey, the study provides a realization picture of poverty incidence in the Northern States of Malaysia. The study focuses on various poverty incidences among various social groups such as urban and rural households, employed and unemployed households Malaysia, different level of education and different income levels. Understanding the scenario of poverty incidence, the results of the study will help Malaysia to take appropriate policy measures to eradicate poverty by 2020.

1.13 Organization of Thesis

This thesis is divided into three chapters. Chapter one is the Introduction. This chapter consists of fourteen, sections. Section 1.1 is introduction. Section 1.2 provides poverty incidence in Malaysia. Section 1.3 provides Poverty line income in Malaysia. Section 1.4 provides northern states of Malaysia. Section 1.5 provides poverty incidence in the northern states of Malaysia. Section 1.6 provides poverty incidence in Malaysia by strata. Section 1.7 provides a discussion on programs and policies on poverty eradication. Section 1.8 is the problem statement. Section 1.9 is research questions.

Section 1.10 is research objectives. Section 1.11 is scope of research, 1.12 discusses why this research is significant and section, 1.13 is limitation of research. Section 1.14 Organization of thesis.

Chapter Two details out the literature review related to the research. This includes the theoretical background and the review of empirical studies on poverty and inequality. This chapter consists of ten, sections. Section 2.1 is introduction. Section 2.2 provides the definition of poverty. Section 2.3 explain and define the poverty line. Section 2.4 explains approaches of measuring poverty. Section 2.5 explains income inequality. Section 2.6 provides Poverty and Inequality. Section 2.7 explains the income inequality in Malaysia. Section 2.8 is a review of previous empirical studies. Section 2.9 explains contextual inequality. Section 2.10 provides a conclusion of the chapter.

Chapter Three explains the variables and their measurements, data sources and discusses the methodology that is applied. This chapter consists of five, sections. Section 3.1 is introduction. Section 3.2 provides data to be used for estimation in this research. Section 3.3 provides the measurement of poverty. Section 3.4 explains the methodology that applied in this study. Section 3.5 explains the explanatory variables.

Chapter Four discusses the results and Interpretations of Results. This chapter consists of seven, sections. Section 4.1 is introduction. Section 4.2, provides the socio-demographic profile of the head of households in the Northern States and each of the states. Section 4.3, provides the Mean Income of Northern State's Head of households. Section 4.4, provides the results of analysis on Poverty Incidence in Northern States by different PLI. Section 4.5, provides the income inequality of Northern states through the Theil index. Section 4.6, is interpretations of results 2009 and 2012. Section 4.7, provides discussion of results 2009 and 2012. Chapter Five concludes the

thesis and provides few policy implications. This chapter consists of two sections. Section 5.1 is the conclusion and section 5.2 is the recommendation.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides the literature review, which includes operational definitions on poverty and different poverty lines that applied in this research and the theoretical background and the review of empirical studies on poverty. This chapter consists of ten sections. Section 2.1 is introduction. Section 2.2 provides the definition of poverty. Section 2.3 explain and define the poverty line. Section 2.4 explains approaches of measuring poverty. Section 2.5 explains income inequality. Section 2.6 provides Poverty and Inequality. Section 2.7 income inequality in Malaysia. Section 2.8 Review of previous empirical studies. Section 2.9 explains contextual inequality. Section 2.10 provides a conclusion of the chapter.

2.2 Defining Poverty

Poverty has been defined in different ways. According to World Bank (2000), poverty is defined as ‘pronounced deprivation in well-being, Where well-being is measured by individual or households’ possession of income, health, education, assets and certain rights in a society, such as freedom of speech. Asian Development Bank, (2001) defines poverty as ‘whether individuals or households have enough resources or abilities to meet their needs. Although the above two definitions are clearly related, the latter definition compares individual’s income as well as consumption, education or other attributes with some threshold level. Additionally, capability approach is one of the latest approaches defined by Sen (2001). In her approach, poverty can also be

conceived of as a lack of opportunities, powerlessness, and vulnerability. Kenneth and Sen (1982), stated that, poverty extends beyond the ability to meet a minimum level of resources for daily needs and beyond the basis of income, consumption approaches to poverty and Future opportunities may change the circumstances of household's poverty.

2.2.1 Poverty Line and Definition of Poverty Line

Poverty line income (PLI), specifies the poor. Individuals with income below the PLI are poor. Based on the level of income, poverty can be divided into absolute and relative terms. Absolute poverty is when the income just enough for basic needs of life. Relative poverty is when the income covers the average standard of living. According to Kakwani (2001), using absolute or relative approach to measuring poverty depends on country development. Relative approach is not suitable for developing countries. Sen (1999), defined PLI as the deprivation of basic capabilities, which consists of factors such as active life, healthy and full participation in society. Research Council of Norway (2005), with research on peace and poverty, defined poverty as an individual lack of freedom, in other word poverty entail the deprivation of obtaining the minimum living levels and welfare attributes.

The poverty line can be considered as various ways, Montiel (2014) explains the poverty line based on Food, and Basic-Needs Poverty. Headcount (H) index: Measures the proportion of households (people) that are considered poor in a society. It is a measure of the incidence of poverty that does not indicate how poor the poor are. Poverty-gap (PG) index: Measures the extent to which individuals fall below the poverty line (the poverty gaps) as a proportion of the poverty line. It is an indicator of the depth of poverty that does not reflect changes in inequality among the poor.

Squared Poverty-Gap (SPG) index: Also known as the poverty severity index, which averages the squares of the poverty gaps relative to the poverty line, assigning then higher weights the poorer a household is. This measure corresponds to the index proposed by Foster, Greer, and Thorbecke (1984).

For instance Food Poverty lines in Mexico that consider the minimum, monthly household per-capita income (\$796.23 & 1,069.67 Mexican pesos, or equivalently USD \$2.14 & 2.87 daily American dollars) to satisfy food necessities in the rural and urban sectors respectively in 2008. However, this amount is (\$1,444.83 & 2,146.18 Mexican pesos, or equivalently USD \$3.88 & 5.76 daily American dollars) to satisfy food, education, health, clothing, housing and transportation necessities in the rural and urban sectors respectively in 2008.

Another method in measuring poverty can be summarized by measuring poverty indices. For instance, Correspond to the Growth Incidence Curves (GICs) introduced by Ravallion and Chen (2003) stated that the rate of pro-poor growth of the mean growth rate of the poor, which equals the rate of change normalized by the headcount index. In order to measure GICS sample should satisfy the following conditions:

1. The measure should be consistent with the direction of change in poverty, in that a positive (negative) rate of pro-poor growth implies a reduction (increase) in poverty.
2. The measure of poverty implicit in the measure of pro-poor growth should satisfy the standard for poverty measurement.

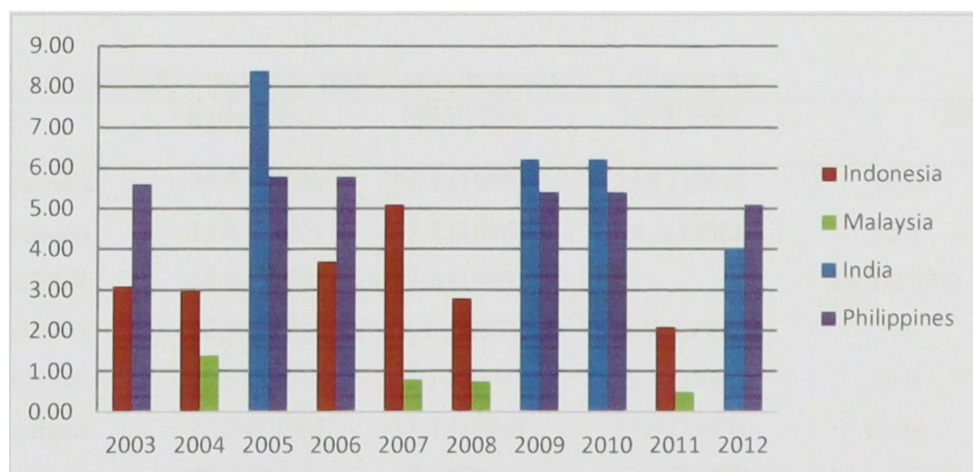
The decomposition of the poverty changes into growth index introduced by Datt and Ravallion (1992) stated that the poverty measures are estimated from the published grouped distributions of per capita expenditure using parameterized Lorenz curves; To see if the observed changes in the distribution of income were poverty

reducing we can calculate the distributional component of a poverty measure, as obtained by fixing the mean relative to the poverty line and then seeing how the poverty measure changes. This tells us if the actual rate of poverty reduction is higher than one would have expected without any change in the Lorenz curve, Datt and Ravallion (1992).

Ravallion and Huppi (1991) introduced the sectorial decomposition to quantify the relative contributions of changes in poverty within sectors and of inter-sectorial population shifts to changes in aggregate poverty. Sectors in this decomposition are typically defined as urban and rural, sectors of employment, or sub-national states. They decomposed the change in a poverty measure, headcount index, poverty gap, or squared poverty gap, into three components: (i) intra-sectorial, (ii) inter-sectorial, and (iii) interaction: (i) The intra-sectorial component, represents the change in poverty attributable to changes in poverty rates, holding the population share constant at the initial level. In other words, this is the change in poverty that would have occurred if the population shares in each sector did not change. (ii) The inter-sectorial (population shift) component, represents the change in poverty attributable to changes in population shares in each sector, holding the poverty level within a sector constant.

Depending on how sectors are defined, this component represents poverty changes resulting from people shifting other physical locations between poor and rich areas (e.g., between urban and rural areas or between states) or shifting employment sectors. The interaction component, represents the change in poverty attributable to both changes in population shares and poverty levels in sectors. This component can be “interpreted as a measure of the correlation between population shifts and intrasectorial changes in poverty” (Ravallion and Huppi, 1991).

After identifying who are the poor, various measures commonly available to measuring poverty include headcount index, poverty gap index and severity of poverty index or squared poverty gap index Zin (2011). With considering the poverty gap index, Figure 2.1 shows a comparison of the poverty gap between some Asian countries (Based on the availability of the data). Poverty gap at national poverty line is the mean shortfall from the poverty line as a percentage of the poverty line. However, Poverty among Malaysian citizen are lower than some neighboring countries in South East Asia (Philippines, Thailand, Indonesia, India, Sri Lanka), is still lagging behind Singapore, Korea with higher GDP values and generally higher national level of income. Unfortunately, there are no available data about poverty lines in Singapore, Korea and Japan. Apart from the availability of data on poverty line Zin (2011), stated that a cross-country comparison of poverty incidence if it's not possible, but is difficult due to the differences in the definitions of income as well as the PLI (Zin, 2011; World Bank, 2006; Zin 2008).



Source: World Bank (2014)

Figure 2.1: Comparison of poverty gap at national poverty line, in four Asian Countries 2003-2012

Although, some difficulties exist in cross country comparisons of poverty, there are some evidences in international level which can shed some lights on the

position of Malaysia compared to neighboring countries. Based on UNDP's human development reports incidence of poverty tumbled down in the high-growth countries of Indonesia, Malaysia, Thailand and Vietnam (Zin, 2011; UNDP, 1990, 2005). During financial crisis of 1997/1998, poverty incidence went up and Malaysia was not an exception. Table 2.1 summarizes ASEAN poverty incidence in general four phrases. As Table 2.1 shows in early 1990s the first phase of the table Malaysia poverty index was higher than Indonesia and lower than Cambodia, Lao PDR, Philippines, Thailand, and Vietnam. During the second phrase from 1996 to 1997 Malaysia with 6.1% stay in the minimum amount of poverty rate as can be seen in this phrase compare to other periods in Table 2.1 experience a sharp reduction in poverty incidence. In the third phrase from 1998 to 1999 effects of financial crisis appeared with poverty incidence, hence Malaysian poverty incidence increase to 8.5% in 1999, but still below than Indonesia, Philippines, Thailand and Vietnam. In 2007 and 2012, the last phrase most of the countries except Vietnam in 2006, have a successful increase trend in reduce poverty incidence. In 2012 Malaysia still below than others with 1.7%.

Table (2.1): ASEAN poverty incidence in general 4 phases %

Country	Early 1990s	1996/1997	1998/1999	2007/2012	
Cambodia	39.0 (1994)	36.1 (1997)	35.9 (1999)	30.0	-
Indonesia	15.8 (1990)	17.7 (1996)	24.2(1998)	16.6	11.7
Lao PDR	45.0 (1992)	38.6 (1997)	-	31.0 (2005)	-
Malaysia	17.1 (1990)	6.1 (1997)	8.5 (1999)	3.6	1.70
Philippines	39.9 (1991)	28.1 (1997)	39.1 (1998)	26.9	25.20
Thailand	27.2 (1990)	11.4 (1996)	15.9 (1999)	10.54	13.20(2011)
Vietnam	25.0 (1992)	15.7 (1996)	13.3 (1999)	16.0 (2006)	17.20

Source: Adopted from Zin (2008) and the world bank (2012)

2.2.2 ADB Poverty and Vulnerability

The terms “poverty” and “vulnerability” are commonly misinterpreted. Poverty refers to an individual’s current socio-economic status; vulnerability, on the other hand,

refers to potential changes in this status. The poor are not necessarily vulnerable; for example, subsistence farmers in remote areas are usually poor, but are not particularly vulnerable to macroeconomic shocks.

It is a cruel fact of life that anyone at any time can be hit by an unexpected shock or tragedy. Households or individuals with a reasonable standard of living can be pulled into poverty by shocks such as bad harvests, job losses, illness, or natural disasters. People exposed to these possible events are considered vulnerable. The challenge of development includes not just the elimination of persistent and endemic deprivation, but also the removal of vulnerability (Sen 1999). Unfortunately, conventional approaches to poverty measurement rarely account for these shocks or risks. Consequently, policies based on usual poverty profiles are inadequate for the vulnerable.

The importance of measuring vulnerability is that it identifies those who are not poor but may easily fall into poverty later. This makes it possible to design and implement preventive interventions.

The key difference between poverty and vulnerability to poverty is that vulnerability involves future risks, is a forward-looking concept, and cannot be observed. Following several studies, the concept of vulnerability to poverty can be viewed differently (Hoddinott and Quisumbing 2003, Hoogeveen et al. 2004, Klasen and Povel 2013, Fujii 2013).

In general, vulnerability can be defined relative to entities such as states, companies or individuals, and with respect to types of shocks or risks— such as natural disasters, economic crises, health deterioration and sociopolitical setbacks (World Bank 2014b). Alternative definitions of vulnerability to poverty are mentioned in the following.

2.2.2.1 Vulnerability as Uninsured Exposure to Risk

In general, people face various risks such as natural disasters, illness, death of work animals, and crop diseases, among others. Risk in developing countries raises three related questions (Townsend 1994). First, are these risks insurable? If shocks are idiosyncratic, that is, specific to a particular individual or household, it becomes possible to pool risks and hence insure them. However, if these are aggregate shocks affecting the entire population—as is the case of natural disasters—insurance becomes far more difficult to implement. Second, are markets or technologies available to overcome such risks? For example, grain storage has been used for centuries to deal with some of these risks. Networks of family and friends are also useful when facing these shocks (Rosenzweig 1988). Third, are there financial institutions—or more generally institutional arrangements—at the local or national level that provide implicit and explicit insurance?

2.2.2.2 Vulnerability as Low Expected Utility

Ligon and Schechter (2003) were the first to define vulnerability as the difference between a household's utility derived from certainty equivalent consumption and its expected utility derived from actual consumption. They propose breaking down vulnerability into four components: poverty, aggregate, idiosyncratic and unexplained risks.

2.2.2.3 Vulnerability as the Probability of Being or Becoming Poor in the Future

Kühl (2003) defines vulnerability to poverty as the propensity of a household to suffer a significant shock that brings its welfare below a socially accepted level. Others conceptualize vulnerability to poverty as the probability that a household would

experience at least one episode of poverty in the near future or over a given number of time periods (Pritchett, Suryahadi, and Sumarto 2000, Mansuri and Healy 2001). This approach was formalized by defining vulnerability as the probability that a household's future consumption will fall in the future below some predetermined poverty line (Chaudhuri, Jalan, and Suryahadi 2002).

2.2.2.4 Defining Vulnerability on the Basis of Axioms

Calvo and Dercon (2005, 2007) viewed vulnerability as a probability-weighted average of future states of deprivation. They postulate several desirable axioms that a measure of vulnerability should possess. Among these axioms is risk sensitivity, which implies that higher uncertainty should be reflected as a higher degree of vulnerability.

2.2.3 ADB Vulnerability Adjusted Poverty Line

The poverty lines measured by ADB such as ADB poverty line income and ADB vulnerability adjusted poverty line income are comprehensive and powerful tool for measuring poverty of regions in Asia.

As noted above as the welfare of a poor household depends on the risks or shocks it faces, aside from its level of income or consumption, vulnerability is inherently related to poverty. Vulnerability involves future risks, is a forward looking concept, and cannot be observed. Households or individuals with a reasonable standard of living can be pulled into poverty by shocks such as bad harvests, job losses, illness, or natural disasters. People exposed to these possible events are considered vulnerable (Asian Development Bank, 2014).

The principle for developing a vulnerability-adjusted poverty line is similar to that underlying food insecurity. The welfare or utility associated with the benchmark poverty line and the adjusted poverty line must be equal. Again, the starting point is