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# Distribution of the Livelihood Assets among the Hardcore Poor: Evidence from Kedah, Malaysia

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## Abstract

The aim of this study is to analyze the distribution of the livelihood assets among the hardcore poor in *mukim* (sub-district) Kupang, Kedah. Based on the Sustainable Livelihood Analysis (SLA), a structured questionnaire has been designed to collect information on the livelihood assets of 150 hardcore poor in mukim Kupang which consist of financial, human, physical, natural and social assets. The study found that, on average, the possession of natural asset among the hardcore poor was the lowest as compared to other assets and their human and social asset were also rather low. The finding from this study may facilitate the local and state governments in understanding the root cause of poverty in Kedah. For effective intervention, this study suggests that emphasis should be given to the possession of natural and human assets among the hardcare poor, rather than highly relying on financial assistance policies.

## 1. Introduction

The sustainable livelihoods approach (SLA) is one of the methods to enhance understanding of the livelihoods of poor households. Unlike other method, the SLA is a multidimensional, integrated and rational approach to poverty eradication. This concept was first introduced by Brundtland Commission on Environment and Development in 1987 and later expanded at United Nations Conference on Environment and Development in 1992 (IISD, 2013). A livelihood encompasses the capabilities, assets and activities for a living and it is sustainable not only when the poor is able to survive and recover from stress or shock, but competent in maintaining and providing livelihood opportunities for the next generation (Chambers and Conway, 1992). The fundamental feature of the sustainable framework is an analysis of five different types of assets own by individuals to build their livelihoods which consists of natural, social, human, physical and financial capital. (Carney, 1998; Ashley and Carney,1999; Bebbingtton, 1999).

In Malaysia, government has implemented various policies to eradicate poverty and assistance offered is largely based on the level of income (Mohamed Saladin et al., 2011a; Mohamed Saladin et al., 2011b; Roslan, 2004). This inevitably necessary but it is merely for a short term. Therefore

understanding the distribution of the livelihood assets among the poor is very important for long term benefits. The aim of this paper is to analyze the distribution of the livelihood assets among the hardcore poor in Baling, the district where the poverty incidence is the highest in the state of Kedah (e-Sinar, 2009). We also calculate the standardization index to further understand the distribution of these assets.

The structure of this paper is as follows. Section 2 discusses on the method employed in this study while section 3 presents the result. We conclude the analysis at the end of the paper.

# 2. Method

## 2.1. Scope of study and data collection

This study is confined to Kedah which is situated in northern Malaysia which ranked second in terms of poverty rate. From e-Sinar database[1], it is shown that the district of Baling has the highest incidence of poverty in Kedah State. Within Baling, we chose *mukim* (sub-district) Kupang as our area of study due to the fact that it has the highest population of hardcore poor. From the list of poor households obtained from the District Office of Baling, there were 190 households that fall under hardcore poor category. After a thorough screening, we excluded 40 households which later left us with only 150 household to be surveyed.

Data were collected face-to-face using a structured questionnaire which was designed based on the Sustainable Livelihood Analysis (SLA) framework. In collecting information on assets ownership, the questionnaire was divided into eight parts which include socio-demographic information, human, physical, social and natural assets, food security and health status. The list of indicators for each asset is shown in Table 1.

**Table-1.** List of indicators for livelihoods assets

| Human Assets | Physical Assets | Social Assets | Financial Assets | Natural Assets |
|---|---|---|---|---|
| Highest level of education possessed by each member of household | The main source for drinking<br>The main source for other activities | Position in society of HH | Total of household income from main occupation | Ownership of land that suitable for agriculture (size) |
| Working experience of the head of household (years) | Type of toilet<br>Housing characteristics - Floor, roof, external wall | Involvement in agriculture association of HH | Total income from other economic activities | Natural resources assistance from relevant agencies (e.g soil, seeds, fertilizers, pesticides, etc) |
| Experience level of the current job of HH | Home ownership<br>The main fuel type for cooking | Relationship with officials from relevant agencies of HH | Total of income from non-economic activities | Level of use of given natural resources |

[1] e-Sinar is an online poverty database system that contains selected information of poor Head of Household (HH) in the State of Kedah Darul Aman, Malaysia.

| Human Assets | Physical Assets | Social Assets | Financial Assets | Natural Assets |
|---|---|---|---|---|
| Knowledge level of the current job of HH | Amenities for information access - Electricity, television, internet, fixed-line telephone, smartphone | The level of involvement in political party of HH | | Ownership of livestock |

Note: HH - Head of household

### 2.2. Analysis

The first part of the analysis consists of the descriptive statistics of five livelihood assets' indicators in order to get better understanding of the possession of these assets. In order to compare the possession between assets, we standardized all indicators for each asset by using the similar standardization procedure used in Hahn et al. (2009). For each indicator, *k*, the standardization index for *i* household was calculated by using the formula

$$Index_{ki} = \frac{s_{ki} - s_{k\min}}{s_{k\max} - s_{k\min}} \qquad (1)$$

Where $s_{ki}$ is the observed value of indicator $k$ for household $I$, $s_{k\min}$ and $s_{k\max}$ are the minimum and maximum values of $k$ for population under study.

## 3. Result

This section starts by presenting the distribution of selected indicators followed by the presentation of the standardized index of each asset.

### 3.1. Distribution of livelihood assets

#### 3.1.1. Human asset

Human asset is a stock of competencies, knowledge, social and personality attributes that can produce economic benefits. At micro level, human capital is a combination of skills, knowledge, labour ability and good health that contributes to livelihood strategies (DFID, 2000). Among indicators to represent human asset in this study is the highest education level attain by household members including head of household (HH). Education level of HH reflects the level of awareness of the importance of higher education of children, access to information, and capability to improve family economic status. From the analysis, it shows that almost half (49%) of the HH has no qualification, while the highest level attained was only at (Malaysian Certificate of Education (MCE) or SPM (Sijil Pelajaran Malaysia (SPM) level (8.7%).

#### 3.1.2. Physical asset

Physical asset comprises the basic infrastructures such as transport, shelter, clean and adequate water supply and amenities that facilitate access to information. In this study, we used several indicators to measure physical asset as explained before in Table 1. Most of the households possess their own house (93.3%) with a satisfactory basic infrastructure. Of all households under survey, 96.6% have proper toilet, 96% have proper roof and 93.3% used suitable material for exterior wall. Despite of many government efforts to improve water supply in rural areas, there are still households that depend on other sources than cleaned tap water as the main sources of drinking water. There are 36.2% of hardcore poor households in Kupang that rely on other water sources than tap water. Similar trend is also found for main source of water for other purposes.

Unlike water, the main energy source for cooking is found to be comparable to that of the national level. Almost all households (98.67%) use gas as the main energy for cooking, regardless its

high cost as compared to traditional method. Table 2 presents the possession level of electricity, telecommunication amenities and transportation of the households as compared to figures by Household Income and Basic Amenities Report Survey (HIS) (2009).

**Table-2**. Electricity supply, communication, transport ownership of the hardcore poor in mukim Kupang

| Items | Accessibility/ownership among hardcore poor in Kupang (%)* | Accessibility/ownership in Kedah (HIS Report, 2009) (%)** |
|---|---|---|
| Electricity | 98.66 | 99.80 |
| Television (TV) | 92.62 | 95.40 |
| Subscription to cable TV | 10.74 | NA |
| Radio | 44.30 | 67.10 |
| Mobile phone | 38.00 | 87.50 |
| Fixed-lined telephone | 0.67 | 20.2 |
| Internet subscription | 0.00 | 5.4 |
| Motorcycle | 83.89 | 87.70 |
| Bicycle | 40.94 | 43.70 |
| Car/Van/Jeep | 23.49 | 60.00 |
| Lorry/Truck/Machine for agriculture | 2.01 | NA |

**Sources:** * - Researchers, ** - HIS Report, 2009

### 3.1.3. Social asset

Social assets are important for a community to generate prosperity and sustainable development. It refers to the institutions, relationships and norms that determine the level of social interaction in the community. The role of head of household is essential in accumulating social asset. We asked head of household whether they were holding any important position in the society and 6.71% answered "Yes'. In terms of relationship with officials from relevant agencies which are responsible in providing assistance, 18.12% said that they have association with them. This shows that the remaining 81.88% do not have any link with appropriate officials for assistance related to poverty abatement.

### 3.1.4. Natural asset

The access to natural resources is essential for sustainable poverty reduction. Among indicator used to measure natural assets is the ownership of land. Land plays multiple functions which also serve as a platform to extent other assets. From the survey, it is found that 19.46% of the households have land ownership for agriculture use. The low percentage of ownership of agriculture land makes it difficult for any poverty eradication measure to sustain. It is also not surprising that the absence of land ownership contributes to only 8% households with live stocks. Despite of low level of natural assets ownership, only 4.7% households received assistance related to this asset.

### 3.1.5. Financial asset

In order to assess the current situation of financial assets of the hardcore poor in mukim Kupang, several types of income have been measured. Income is divided into two categories which are income from economic activities and income transfers, Income transfers are in the form of *zakat*, transfer from children, pension, children's scholarship, and any form of assistance from welfare or other related agencies. Table 3 shows the summary statistics of the total income. From Table 3, it is found that the amount of income from economic activities that is before income transfer from other sources can achieve up to a maximum level of RM2,850 per month, which is higher than the amount of income reported in e-Sinar database. This may be due to the fact that the income declared in e-Sinar comes from head of household alone, not including other income of household members. The result indicates that the income declared in the e-Sinar might be under declared. Household income after transfer can reach up to a maximum of RM1,209 per month with mean of RM1,209 per month.

For a better understanding of the distribution of the financial assets, we adjusted the income according to the size and age proportion of the members of household. After the adjustment, the maximum amount has reduced to RM508 per month.

**Table- 3.** Household income (monthly) of the hardcore poor in mukim Kupang

| **Income type (Total)** | **Minimum (RM)** | **Maximum (RM)** | **Mean (RM)** |
|---|---|---|---|
| Household income before transfer | 0 | 2,850 | 1,074.17 |
| Household income after transfer | 58 | 3,000 | 1,209.63 |
| Equivalized income* before transfer | 0 | 1,040 | 437.81 |
| Equivalized after transfer | 58 | 1,200 | 508.28 |

**Note:** * The equivalised income is calculated by dividing the household's total income from all sources by its equivalent size using the modified OECD equivalence scale.

### 3.2. Standardization index of livelihood assets

At this point, we calculated the standardization index of the livelihood assets based on selected indicators, as shown in Table 1. The value of 1 signifies the highest level of ownership relatively. Table 4 shows the summary statistics of the standardization index for the livelihood assets. The index reflects the distribution within the selected group only, thus must be interpreted with caution. For example, the score of 1 for financial asset implies that the highest score within the interest group only and does not suggest whether or not it is adequate. Nevertheless, the mean score reflect the average distribution of specific asset among hardcore poor households in mukim Kupang. On average, physical asset shows the highest score of 0.69 while the possession of natural asset has the lowest score of 0.09.

**Table-4**. Standardization index of livelihood assets

| Livelihood assets | Minimum | Maximum | Mean | Std. Dev |
|---|---|---|---|---|
| Human | 0.00 | 0.93 | 0.55 | 0.20 |
| Physical | 0.47 | 0.89 | 0.69 | 0.08 |
| Social | 0.00 | 0.93 | 0.55 | 0.20 |
| Natural | 0.00 | 0.83 | 0.09 | 0.20 |
| Financial | 0.00 | 1.00 | 0.39 | 0.20 |

## 4. Conclusion

The main objective of this paper is to analyze the distribution of the livelihood assets of the hardcore poor in mukim Kupang, Kedah. The analysis is based on the Sustainable Livelihood Analysis (SLA) framework that concentrate on five group of livelihood assets namely human, physical, social, natural and financial assets. Understanding the current situation of livelihood assets owned by the poor is very crucial for local authorities or related agencies for appropriate assistance. From the analysis it shows that, on average, the education level of head of household is rather low as almost half of them have no formal education. This situation reflects the economic role of education in a household where a low level of education may be associated with poverty. Thus, the best education should be provided to poor children to remove them from poverty in the future.

Despite the importance of social asset in fostering the spirit of concern and awareness in the community, the possession level is quite low in the area of study. For example, most of the households do not have any contact with officials from relevant agencies that are responsible in

providing assistance. Lack of ownership of natural resources also affects households out of poverty. Based on the calculated standardization index, on average, the ownership of natural assets is the lowest as compared to other assets. Therefore, without accessibility to natural resources, any form of assistance especially financial assistance does not confirm the sustainability of the poor's livelihood. This otherwise would only encourage their dependency on government assistance. Many poverty reduction programs use income level as the main indicator of poverty as it is very convenient to measure. However, we must be vigilant in the use of income indicator as the financial ability of households also depends on the size and age composition of its members, hence the use of equivalized income. As shown in Table 3, equivalized income is far below the absolute total income and may reflect proper households' financial situation. In terms of physical assets, it is found that most of the households possess their own house with satisfactory basic infrastructures except for clean tap water. Measures should be taken so that the level of access to clean water can be improved.

The information collected from this study serve as a comprehensive record that link the role of each livelihood asset of the hardcore poor in Kedah state. For further analysis, a sustainable livelihood index can be developed by using data on livelihood assets to together with several livelihood outcomes.

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