The Effectiveness of NCER Programs to the Lower Income Group of Rural Areas in Malaysia

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ABSTRACT
The income level of the paddy farmers and the people involved in Small and Medium Enterprises is significantly lower than the average income level of other Malaysians. Subsequent governments have undertaken several projects and schemes to improve the income level of these people. One of such efforts is the Northern Corridor Economic Region (NCER) programme. The NCER programme has been implemented in the states of Kedah, Perlis, Perak and Penang. This paper has been undertaken to study the effectiveness of this programme in elevating the income level of paddy cultivators and small and medium sized entrepreneurs. We found that majority of the farmers and entrepreneurs were old and married. It was also found that their level of education is low but they possess sufficient experiences in their chosen vocations. The study revealed that only the age, number of family members, years of experience, level of education have an effect on the income level of farmers. We also found that gender, marital status, participation in associations, contribution from children and relatives as well as home ownership does not affect the income of farmers. In the case of small and medium sized entrepreneur’s marital status, years of experience and starting capital have found to be affecting the income level, whereas gender, age, education level, participation in associations and capital sources did not have any effect.
KEY WORDS Northern Corridor Economic Region (NCER), Small and Medium Enterprises
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1. Introduction

Poverty is a socio-economic phenomenon that occurs in all countries including Malaysia. Various efforts have been made to reduce poverty since independence, but it take a long time to achieve a low level of poverty. The government's seriousness to solve the poverty issue can be seen with the programs that contribute to improved quality of life and reduce poverty. In fact, reducing poverty is regarded as a national agenda in Malaysia. The efforts to reduce the poverty began with the New Economic Policy (NEP) is a socio-economic program introduced in 1971. The next emphasis continues with the National Development Policy (NDP) from 1991 until 2000 and The Vision of Development Policy (NVP) started from 2001 to 2010 (Economic Planning Unit, 2011).

According to the Economic Planning Unit (2011), the poverty, unemployment, and economic disparities among ethnic groups continued to be problems in the early 1970s. During that year, almost population of Malaysia’s was living in poverty. So, the NEP was formulated to eradicate poverty by raising income levels and increasing employment opportunities, irrespective of race, and to restructure Malaysian society to correct economic imbalances.

In the NDP, it maintained the basic strategies of the NEP to growth with equity or equitable distribution. In addition the NEP was adjusted to policy for focusing of anti-poverty strategy. This was shifted to the eradication of hard-core poverty that was developed to increase the participation of native. In the modern sectors of the economy, there were greatest reliance on the private sector to generate economic growth and income to emphasis placed on the human resource development as a primary instrument for achieving the objectives of growth and distribution.

The NVP builds upon and maintains the efforts of the NEP and NDP, and incorporates the Vision 2020 objective of transforming Malaysia into a fully developed nation. It was emphasizes to build a resilient and competitive nation, as well as an equitable society, to ensure unity and political stability. The private sector will spearhead economic growth, while the public sector will provide the supportive environment and ensures the achievement of the socio-economic objectives. Towards these goals, the keys of strategies include developing a knowledge-based economy, emphasizing human resource development, and accelerating the shift of the key economic sectors towards more efficient production processes and high value-
added activities. At the same time, further progress towards poverty eradication is expected to result from rapid economic growth assisted by specific poverty alleviation programs, consolidated under the Welfare Development Scheme (WDS) (United Nations Development Programme, 2011).

To ensure the goal is reached, various approaches have been undertaken from the agencies and government departments to reduce and eliminate poverty. As a result, the impact from that policy, Malaysia’s poverty eradication programs is evident from the sharp decline in the incidence of poverty, which decreased from 52.4 percent in 1970 to 5.1% in 2009 (Nair, 2010). However, the poverty gap in rural areas is five times higher than in urban areas, it shows that the poverty in rural areas is more seriously than urban areas.

In realizing vision 2020, Malaysia should be concerned to the poverty issue. The government needs to remove the negative perceptions of rural conditions with the labelled as backward, mired in unemployment and no employment opportunities. The poverty problem will be impact to the national development. When the poverty problem affect to the rural areas, the community cannot be access the resources and reduce the capacity to increase to economics level in the market. In addition, the community most likely will leave behind to get a good opportunity. So, the government needs to implement various programs to reduce poverty among lower income group in the rural areas.

However, the NCER areas, Kedah, Penang, Perak, Perlis and the districts of Hulu Perak, Kerian, Kuala Kangsar, Larut Matang still facing with the poverty problems. This problem exists because all of the states have a rather late transformation process if compared to other states in Malaysia. In addition, the whole of the rural communities in the NCER areas are middle peasant, poor peasants and wage labourers.

Establishing the economic lot of the agricultural activities that increase efficiency in the upstream and downstream processing of economic performance such as efficient use of resources, some of the land 'Northern Corridor' privately operated for private companies. Besides that, to create economically-sized lots for agricultural activities which will enable higher levels of efficiency in upstream activities, as well as more economical performances of downstream processing activities such as to utilize the resources. So what the factors are influence the participation to the NCER project, whether it was successful or not after the project is carried out.
2. Literature Review

The theory of sustainable livelihoods refers to a future intention. Its means it is not necessarily a current situation but a goal for the future and prediction. Based on the review, this paper trying is to explain the component in the framework and relate to this study.

According to Serrat (2008), the sustainable livelihoods approach is a way of thinking about the objectives, scope, and priorities for development activities. It is based on evolving thinking about the way the poor and vulnerable lives their lives and the importance of policies and institutions. However, Majale (2002), explained that sustainable livelihoods and how can they be achieved, ideally and practically. While, sustainable livelihoods may mean many things to many people, what is common between the various approaches is a call to reduce the complexity and uncertainty that gives rise to demands for sustainable livelihoods in the first place.

The sustainable livelihoods approach facilitates the identification of practical priorities for actions that are based on the views and interests. It does not replace other tools, such as participatory development, sector-wide approaches, or integrated rural development. However, it makes the connection between people and the overall enabling environment that influences the outcomes of livelihood strategies. It brings attention to bear on the inherent potential of people in terms of their skills, social networks and access to physical and financial resources, and ability to influence core institutions (Asian Develop Bank, Mekong Department, 2004).

The Centre for Appropriate Technology in Australia (2000) has advocated and used the Framework in its work. The perceived value of using the framework is that to provides a way of understanding and examining the complexities of communities, to engages people and communities in decision making processes around strategies where the central concern is improving their wellbeing and to increases the scope of an analysis to include areas which are too often under-valued such as social capital and provides a way of extending the analysis across different scales from household to regional organization and government (Fisher 2002).

Livelihoods analysis is an important component within regulatory reform. Many of the researchers affirm that the sustainable livelihoods theory provides a useful conceptual base for understanding poverty and the situation of people living in poverty and is an effective tool for analyzing the impact of regulations on their livelihoods. It can be used to analyze the coping and adaptive strategies pursued by individuals and communities as a response to external shocks and stresses such as drought, civil strife and failed policies and anti-poor regulatory frameworks. (Majale, 2002).
The utility of the sustainable livelihoods theoretical approach for the poor is however questioned by McLeod (2001). She acknowledges the efficacy of the theory to practitioners, development agencies and scholars seeking to understand the complex dynamics of poverty, but underlines the ambiguity about the advantage it can offer the poor as a tool. There has, in fact, been scepticism about the value the theory can add “at the front line”. McLeod (2001) maintains that the definitional process and the determination of definitional legitimacy requires further recognition and exploration within sustainable livelihoods theory if the conceptual framework on which it is based is to become useful to organizations of the poor.

The sustainable livelihoods framework helps to organize the factors that constrain or enhance livelihood opportunities and shows how they relate to one another. A central notion is that different households have different access livelihood assets, which the sustainable livelihood approach aims to expand (Serrat, 2008).

The livelihoods approach is concerned first and foremost with people. So an accurate and realistic understanding of people’s strengths is crucial to analyse how they endeavour to convert their assets into positive livelihood outcomes (Bebbington, 1999). People require a range of assets to achieve their self-defined goals. This emphasis on assets is closely linked to the concept of capabilities. Thus assets are not simply resources that people use to build livelihoods and give the capability to be and act.

3. Data and Methodology

This section discusses the data and methodology to be used in this paper. The methodology of this paper is selected based on criteria to ensure that the collected data can be estimated correctly to minimize biases.

Sampling Design

In this study, the targeted populations are people in the NCER areas using the primary data which was collected through questionnaires. The respondents from paddy cultivation are the farmers from Kampung Jelai and Kampung Batu 14; and SMEs respondent from Kulim, Kuala Muda and Baling areas.

Questionnaire

In this paper, the questionnaire is divided into eleven parts. Part A asking about the background of respondent which is the part of human capital, Part B asking about the ownerships of natural asset, Part C asking about ownerships of financing capital, Part D asking about ownerships of social asset, Part E asking about the ownerships of financial asset, Part F asking about the physical asset, Part G asking about the programs to increase the revenue, Part H asking about the socioeconomic status indicators, Part I asking about the happiness indicator,
Part J asking about attitude indicators and the last is Part K asking about the opinions for the future plans.

**The Theoretical Framework**

The agriculture and manufacturing sector is important to the community in the rural areas. Most of the communities in rural areas depend on the natural asset to gain their income. However, the poverty problem among farmers and entrepreneurs can’t build up their life. The poverty problem among farmers had inspired NCER to reduce the poverty by the agriculture and manufacturing sector in Northern areas. The goal of this project to achieve is to become a modern food zone, assisting the country in increasing its efficiency in food production.

Through the NCER project, it can create economically-sized lots for the activities which will enable higher levels of efficiency in upstream activities, as well as more economical performances of downstream processing activities. As large parts of the land in the Northern Corridor are privately held, private corporations intending to undertake commercial-scale farming and manufacturing will need to work with the existing land owners, and implement a business model whereby private individuals will retain ownership of the land, but will agree to let the land be managed by a single body.

There are many factors affect to the income level in poverty problem at the NCER rural areas. The main factor to contribute in this study is status characteristic such as gender, age, race, marital status and household size numbers. The other factors are human capital asset, physical capital asset, financial capital asset, social capital asset and natural capital asset will introduce and to relate with the household income level. Figure 1 and 2 shows the total income of household influenced by variables.
Livelihood Resources is the basic material and social, tangible, and intangible assets that people use for constructing their livelihoods. The conceptualized as different types of ‘capital’ to stress their role as a resource base ‘…from which different productive streams are derived.”
from which livelihoods are constructed’ (Scoones 1998). The types of capital are identified in the framework is human capital: the skills, knowledge, ability to labour, social capital: the social resources included networks, social claims, social relations, affiliations, associations, physical capital: economic assets, including basic infrastructure and production equipment and technologies, financial capital: the capital base which are essential for the pursuit of any livelihood strategy, natural capital: natural resource stocks (DFID, 1997). We used simple regression analysis to assess the relationship between dependent variable and independent variables in Model of Income level of Household (Paddy Cultivation) and Model of Income level of Household (SMEs) studies. As with studies of the income level for sustainable livelihoods concept, our methodology of this study specifies empirical Model 1 on the paddy cultivation as:

\[ Y = \beta_0 + \beta_2 \text{Gender}_i + \beta_3 \text{Age}_i + \beta_4 \text{m_status}_i + \beta_5 \text{h_size}_i + \beta_6 \text{HC1}_i + \beta_7 \text{HC2}_i + \beta_8 \text{FC}_i + \beta_9 \text{PC}_i + \beta_{10} \text{NC}_i + \varepsilon_i \]  

(1)

where \( Y \) is an income level of farmers in NCER areas, \( \text{Gender} \) is a Gender, \( \text{Age} \) is a age, \( \text{m_status} \) is a marital status, \( \text{h_size} \) is a household size numbers, \( \text{HC1} \) is a human capital asset (years of experience), \( \text{HC2} \) is a human capital asset (education level), \( \text{SC} \) is a social capital asset, \( \text{FC} \) is a financial capital asset, \( \text{PC} \) is a physical capital asset, \( \text{NC} \) is a natural capital asset. The constant is denoted \( \beta_0 \) while \( \beta_1 - \beta_{10} \) are the coefficient show how much a one unit increase in each variable will affect the income level of household and \( t \) is a time series. \( \varepsilon \) is an error term.

We extend our empirical model into model 2 on SMEs in Equation (2) as below:

\[ Y = \beta_0 + \beta_2 \text{Gender}_i + \beta_3 \text{Age}_i + \beta_4 \text{m_status}_i + \beta_5 \text{h_size}_i + \beta_6 \text{HC1}_i + \beta_7 \text{HC2}_i + \beta_8 \text{FC}_i + \beta_9 \text{PC}_i + \beta_{10} \text{NC}_i + \varepsilon_i \]  

(2)

where \( Y \) is an income level of entrepreneurs in NCER areas, \( \text{Gender} \) is a Gender, \( \text{Age} \) is a age, \( \text{m_status} \) is a marital status, \( \text{h_size} \) is a household size numbers, \( \text{HC1} \) is a human capital asset (years of experience), \( \text{HC2} \) is a human capital asset (education level), \( \text{SC} \) is a social capital asset, \( \text{FC} \) is a financial capital asset, \( \text{PC} \) is a physical capital asset, \( \text{NC} \) is a natural capital asset. The constant is denoted \( \beta_0 \) while \( \beta_1 - \beta_{10} \) are the coefficient show how much a one unit increase in each variable will affect the income level of household and \( t \) is a time series. \( \varepsilon \) is an error term.

4. Empirical Results

In order to conduct this paper, information on the farmers and entrepreneurs background as well as their standard of living were collected from the respondents. In this study, 250
questionnaires for paddy and 30 questionnaires for SMEs were distributed to the selected in the residential areas which are located in the NCER area.

Status characteristics theory rests upon the notion of a status organizing process, wherein differences in evaluations and attitudes of individuals in interactional settings result in differences in observable and stable features of the interactional process (Brent and Walker, 2002). This concept can be conceived as an attribute that individuals possess to differing degrees, wherein the differing degrees or levels of the attribute attract differential amounts of esteem or worthiness.

Figure 3 shows that majority respondent join paddy sector. Out of 250 respondents or 89% of respondents join Paddy and 30 or 11% join the SMEs sector.

Figure 4 demonstrates that out of 280 respondents, 80% or 224 are male and 20% or 56 are female. This shows that the number of male respondent in the paddy and SMEs sectors is much higher as compared to female. This is because the male is the head of household and need to get more income to support the family.
The Paddy Estate sector comprises the highest number of male as compared to the SMEs sector. It is because male are more qualified to work hard compared with female. As shown by Figure 5, out of 280 farmers in that sector, about 83.2% are male farmers and 16.8% are female farmers. In SMEs sector, out of 30 entrepreneurs, the percentage of male and female farmers is 50% and 50% respectively.

Figure 5: The Number of Farmers and Entrepreneurs by Gender

Figure 6 shows that the majority of respondent in the paddy and SMEs sectors in the selected areas are married farmers and entrepreneurs. The result demonstrates that almost 85.6% of the farmers in the Paddy sector are married. In the SMEs sector the percentage married entrepreneurs are 86.7%. On the other hand, there are only a small percentage of single, widower and widows.

Figure 6: The Percentage of Farmers and Entrepreneurs by Marital Status

Figure 7 shows the majority of farmers in the paddy and SMEs sector in the selected areas are Malay. The finding indicates that all of the farmers and entrepreneurs who join the both of sector are Malays. On the other hand, there are 98% of Malay farmers and 93.3% of Malay entrepreneurs in that area. For the other races there is 0.4% of Chinese farmers and about 1.6%
of Siamese farmers whereas for other SMEs sector, there are 3.3% of Chinese entrepreneurs, and 3.3% of Indian entrepreneurs.

![Figure 7: The Percentage of Farmer and Entrepreneurs by Races](image)

Figure 7: The Percentage of Farmer and Entrepreneurs by Races

Figure 9 clearly shows that all farmers and entrepreneurs have access to water supply and electric. This facility is necessary to all people in current situation for access their life. Figure 10 reveals that almost all farmers and entrepreneurs in the study areas have their own house. We can clearly see that most of farmers have their own house. The percentage self-ownerships are 99.2% and other is 0.8%. For entrepreneurs, 80% have own house, 10% for rent house and other than own and rent house. In this study, its can conclude that house is one important to farmers and entrepreneurs, so they will effort to get self-owned.

![Figure 9: The Facilities Percentage of Water and Electric supply](image)

Figure 9: The Facilities Percentage of Water and Electric supply
Table 1 shows the results of regression which is to assess the relationship between dependent variable and independent variables in Model of Income level of Household (Paddy Cultivation) and Model of Income level of Household (SMEs) studies. Model 1 and Model 2 show that the estimate of coefficient for gender is a positive relationship with the total income level of household but statistically not significant.
Table 1: Results of Regression: income level of household

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (Paddy Cultivation)</th>
<th>Model 2 (SMEs)</th>
</tr>
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<tbody>
<tr>
<td><strong>Const.</strong></td>
<td>2380.55*** (3.29)</td>
<td>2485.89*** (3.74)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>190.09 (0.86)</td>
<td>151.25 (0.61)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-20.2* (-1.85)</td>
<td>-16.761 (-1.41)</td>
</tr>
<tr>
<td><strong>m_status</strong> (marital status)</td>
<td>-96.08 (-1.04)</td>
<td>-42.46*** (-3.24)</td>
</tr>
<tr>
<td><strong>h_size</strong> (household size numbers)</td>
<td>77.82* (1.91)</td>
<td>81.42 (1.29)</td>
</tr>
<tr>
<td><strong>HC1</strong> (human capital asset (year of experience))</td>
<td>20.88** (2.36)</td>
<td>18.80** (2.01)</td>
</tr>
<tr>
<td><strong>HC2</strong> (human capital asset (education level))</td>
<td>-172.52** (-2.58)</td>
<td>-231.47*** (-3.81)</td>
</tr>
<tr>
<td><strong>SC</strong> (social capital asset)</td>
<td>-194.88 (-0.075)</td>
<td>-184.73 (-0.85)</td>
</tr>
<tr>
<td><strong>FC</strong> (financial capital asset)</td>
<td>0.3 (0.06)</td>
<td>0.18** (2.66)</td>
</tr>
<tr>
<td><strong>PC</strong> (physical capital asset)</td>
<td>-251.723 (-0.1)</td>
<td>-212.51 (-1.20)</td>
</tr>
<tr>
<td><strong>NC</strong> (natural capital asset)</td>
<td>667.94 (5.783)</td>
<td>425.72*** (3.38)</td>
</tr>
</tbody>
</table>

Note: ***, **, * significant at 1%, 5%, & 10% level.

In Model 1, Age has a negative relationship with the total income of household. The estimate of coefficient is -20.20 which mean that with one year increase in a farmer’s age, the total income of household will decrease as many as RM20 per hectare with the assumption that other variables are constant. The inverse relationship between age and total income of household is contrary to a prior expectation. This is probably due to the fact that the older the age of a farmer, the less ability to work and hence the less will be the income of the person. The result also shows that the Age is statistically significant to influence the total income of household for farmers at 10% level. In Model 2, Age also have a negative relationship with the total income of household but statistically not significant.
In Model 1, marital statuses (m_status) have a negative relationship with the total income of household and statistically not significant. Model 2 also has a negative relationship with the total income of household and statistically significant at 10% level. The result also shows that the estimate coefficient is -42.46 which mean that compared to married farmer, the total income of single farmer is lower by the amount RM43 per hectare with the assumption that other variables are constant.

In Model 1, household size number (h_size) has a positive relationship with the total income of household. The estimate of coefficient is 77.82 which mean that with the additional one member of household, the total paddy production will increase as many as RM78 per hectare with the assumption that other variables are constant. The h-size is significantly affecting the total income of household at 10% level. In Model 2, h-size has positive relationships with the total income of household. The estimate of coefficient is 81.42 mean that with the increase one person the family members, the total income increase by RM 81 per hectare but statistically not significant.

In Model 1 and Model 2, human capital asset (year of experience), HC1 have a positive relationship with the total income of household. The estimate of coefficient are 20.88 and 18.80 and statistically significant at 5% level, which mean that with the additional one year of experience, the farmers’ total income will increase by RM21 and RM19 per hectare with the assumption that other variables are constant.

Human capital asset (education level), HC2 in Model 1 and Model 2 have a negative relationship with the total income of farmers in paddy cultivation. The estimates of coefficient are -172.52 and -231.47 and statistically significant at 5% and 1% level, respectively. It is meaning that with one year higher in educational level; the total income will decrease as many as RM172 and RM231 per hectare with the assumption that other variables are constant. In Model 1 and Model 2, social capital assets (SC) have negative relationship with the total income of household. The estimates of coefficient are -194.88 and -184.73 and statistically not significant.

**FC** (financial capital asset)
**PC** (physical capital asset)
**NC** (natural capital asset)
Financial capital assets \((FC)\) and physical capital asset \((PC)\) are positive relationship with the total income of household in Model 1 and Model 2 but statistically not significant.

Model 2 shows that natural capital asset \((NC)\) has a positive relationship with the total income of household in SMEs. The estimate of coefficient is 425.72 and statistically significant at 1% level, which means that with the increase one hectare on size of farm, the farmers’ total income will increase by RM426 per hectare with the assumption that other variables are constant. The inverse relationship between the total income and land areas size is expected. This could be due the farmers have large land area got more income compare with farmers have small land area. Model 1 also shows that natural capital asset \((NC)\) has a positive relationship with the total income of household in Paddy Cultivation. The estimate of coefficient is 667.94 and statistically not significant.

5. CONCLUSION

The study analyzes the effectiveness of the NCER for lowers income group to paddy farmers and SMEs entrepreneurs in Northern area. Data were collected with the aid of structured questionnaires from 250 respondents for paddy cultivation and 30 respondents for SMEs activity selected through random sampling technique.

From the study, we can conclude that most of the paddy farmers are male, married, old, have large household size and generally have low level of education. In SMEs activity, majority entrepreneurs are married also, still young to compare with farmers and have low level education. They have many years of experience in paddy cultivation and SMEs activity. The study also shows that most of the respondents in the study area possess owned house, have access to basic necessities such as water and electricity supply as well as possess satisfactory home equipment and telecommunication tools.

The human capital assets, social capital asset, financial capital asset, physical capital asset and natural capital assets as a key sustainable livelihoods are important variable to indicate in paddy cultivation. The all variable have related to the income of farmer which it is shown the impact to poverty level of respondent in the rural areas. The human capital factors such as gender, number of family, years of experience involved in paddy cultivation, contribution from their children or relatives and land areas size had shown a positive relationship while age, marital status and size of farm (natural capital asset) had shown a negative relationship to the total paddy production. Even though gender and contribution from children and relatives or financial capital asset had a positive sign, but, they were not significant in influencing the total house income. Besides, the marital status and house ownerships (physical capital asset) was also not significant to influence the total paddy production. On the
other hand, the factors of age, number of family, level of education and land areas size were important to influence the total paddy production.

SMEs also shown that human capital asset, social capital asset and financial asset involve indicating the income level of entrepreneurs. So, seven variables from ten have positive relationships but the other variables have negatives effect. From this study, about seven variables are significant while three variables are insignificant in affecting the total income of entrepreneurs of SMEs activity. The human capital asset such as gender, races and years of experience have positive relationship but age, marital status and education level have negative relationships with total income. For the social capital asset which is means of participation level in politic, society and organization also have negatives effect to the total income. Starting capital and capital sources have positive and negative relationships. However, only gender, participation level and capital sources is not significant to the household total income of SMEs activity.

From the study we can conclude that NCER program still at the beginning stage and majority thus the yield of the project is still tried to observe. This is probably due to the fact that the implementation of that program in agriculture and manufacturing are effective in the rural areas to increase their income.

References


