# Design of Strategy Poverty Reduction in the District Batubara North Sumatera Indonesia

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## Abstract

*Poverty was a serious problem with continues to deal with a nation of Indonesia. Due to the persistent problem shows that the problem of poverty is difficult to find a solution. In this research create a model mapping and real poverty reduction and sustainable based on the Model Mapping Poverty Rate in once of the district on Indonesia. The target of this research is to assist the Coal County government to take poverty reduction policies and provide information what factors can be used to build a human in BatuBara North Sumatera. Model of poverty alleviation through diversification of value-added business community meeting the needs of society while the second type determines what variables as policy recommendations for reducing poverty in Batu Bara. The third model as the basis for mapping poverty in controlling debt. The samples were analyzed 260 respondents.*

**Keywords:** Reduce Poverty, Model Mapping Human, Poverty in Batubara

## I. Introduction

Poverty is a serious problem, and that continues to deal with the nation of Indonesia. Due to the persistent problem shows that the problem of poverty is difficult to find a solution. Poverty reduction programs have realized, however, much a stalemate. Unemployment data indicate this can not suppress and even continues to expand in some areas, the number of school dropouts has increased, deteriorating health, and ultimately will affect the income of the people and the economy of a region and country. Recognizing the importance of poverty alleviation, the government through the JPS (Social Safety Net) and other programs have tried to lift the poor. However, data on the population and are representative of poor households by region is very limited. Although the data is there, its accuracy is questionable. One of the causes is so far not obtained for certain of the concepts or methods of measuring poverty that can universally accept although the problem of poverty is believed to have been around the same age of human civilization.

In the era of regional autonomy, the priorities should be directed at population groups, regions, and sectors that are most critical to get attention. Moreover, if the funds are very limited autonomous regions so that the allocation should be formulated efficiently as possible. Decentralization seems obvious to have some positive impact on the lives of residents. Formation of Coal District into a metropolitan city increase political participation, and self-determination of ethnic groups was previous marginalized. With regional autonomy, infrastructure and government services in various sectors increased and new economic opportunities grow. High unemployment in the BatuBara District, when compared to the surrounding area is destitute, where the unemployment rate as an indication of little public welfare. All people can not enjoy judge from the impact of any decentralization, improvements and opportunities. Even official data showed stagnation poverty at a higher level than before decentralization. Local poverty reduction programs do look at the villages, but these programs often do not meet the expectations of local government officials and citizens because of weak implementation and control mechanisms.

## II. Literature Review

### II.1 Poverty of Population

One of the barriers development industrial countries that are developing and which is also a characteristic of these countries is the existence of a population explosion.

We have seen that the purpose of economic development is to improve the living standard of the country concerned, which commonly measures the increase in real income per capita. Real income per capita is equal to real national income or overall output produced during a year divided by the total population as a whole. So living standards can not raise unless production increases faster than population growth. To influence the development of the total output required the addition of a substantial investment to absorb labor, lower population growth; which means that the increase in real income per capita.

Their theory's thrash about how many people are supposed to or suitable for a country. For that, there is the theory of the population known as "theory of optimum population" (optimum population theory). As the optimum population is the population that can provide/generate real wage rate or rate of real per capita income is maximum.

According to Malthus in Todaro (Todaro, 2000), the number of people is like a geometric progression (1, 2, 4, 8, 16, ...), while the increase in food production is like arithmetically (1, 2, 3, 4, 5, 6, 7,).

This Problem will be anxious about the future where we will be in short supply of foodstuffs. Things that need to be done to suppress the rapid growth of the population according to Todaro, 2000) that are:

➢ Have family planning programs for limit the number of children in a family in general and mass so that it will reduce the number of the birth rate.
➢ Delaying the marriage to lessen the number of high birth rates.

In ways that can be done to compensate for population growth:

a. The addition and job creation. With the increasing living standard of the expected loss of confidence in a lot of kids a lot of luck. Also, it is also supposed to increase the level of education that will change the mindset in the field of population.
b. Increasing awareness and education on population. With increasingly aware of the impact and effects of uncontrolled growth rate, it is expected that the public voluntarily contribute the success of family planning movement.
c. Reducing overcrowding with the transmigration program to spread the population in areas that have a low population density are expected to minimize the rate of unemployment due to disproportionate numbers of people with the number of jobs available.
d. Increasing food production and sourcing. This is to compensate least food supply is not followed by the growth rate. Each region is expected to pursue self-sufficiency to avoid dependence on other regions.

The population may change from time to time is increased or decreased. According to Todaro (2000), population dynamics or changes in the number of people affected by three (3) factors that is:

a.Birth (Natal)
b.Death (mortality)
c.Migration(displacement)

## II.2. Indicators of Poverty

Although the phenomenon of poverty is something that is complex in the sense concern not only the economic dimension but also other dimensions beyond the economy that are all location within the economic dimension (Nanga, 2006). Measuring the level of poverty in Indonesia was first officially published in 1984 BPS poverty data that includes the period of 1976-1981. Since then every three years once the BPS was counting the number and percentage of poor people, which is when the consumption module is available. The poor are people who are under the limit, which is called the poverty threshold or poverty line. Based on the results Widyakarya Food and Nutrition, 1978, a person can be said to live a healthy life if it had been able to meet its energy needs at a minimum of 2100 calories per day. Referring to these measures, the poverty threshold for food is the value of dollars that must be paid one month to meet its energy needs by 2100 calories per day.

So that a person can live decent, fulfilling the needs of the food alone will not be enough. Therefore, it is also filled with non-food basic needs, such as housing, education, health, clothing, Berta various other goods, and services. In summary, the poverty line consists of two components, namely the poverty threshold food and non-food (BPS, 2007). Analysis of the factors that cause poverty or poverty determinants ever done by Ikhsan (1999). Ikhsan, divide the determinant factors of poverty into four groups, namely human capital (human capital), physical productive capital (physical productive capital), employment status, and characteristics of the village.

Human capital in a household is a factor will influence UHI a household's ability to obtain jobs and income. In this case, an indicator that often used the number of years of schooling of family members, education of head of a family, and some household members. In general, the higher education of household members, the greater the likelihood the family working in the formal sector with higher incomes.

Physical capital variables, which include floor area per capita and ownership of assets such as land, especially for agriculture. Land ownership will be a major factor give the availability of productive land, households with farm business sector will be able to generate better income. Ownership of physical capital and the ability to earn an income as labor would be an asset to generate revenue families. Household members who do not have physical capital are forced to accept low-paid jobs and have no alternatives for trying alone. The next component is the status of the work, where the main work of the head of the household status will obviously have an impact on the pattern of family income. World Bank (2002) categorize the characteristics of the poor according to community, region, household, and individual. Community factors, infrastructure, is a major determinant of poverty. The state of infrastructure is very close related to the level of the welfare society. Good support will be easier for people to make economic and social activity, on the other hand, facilitate investors to make an investment in the region.
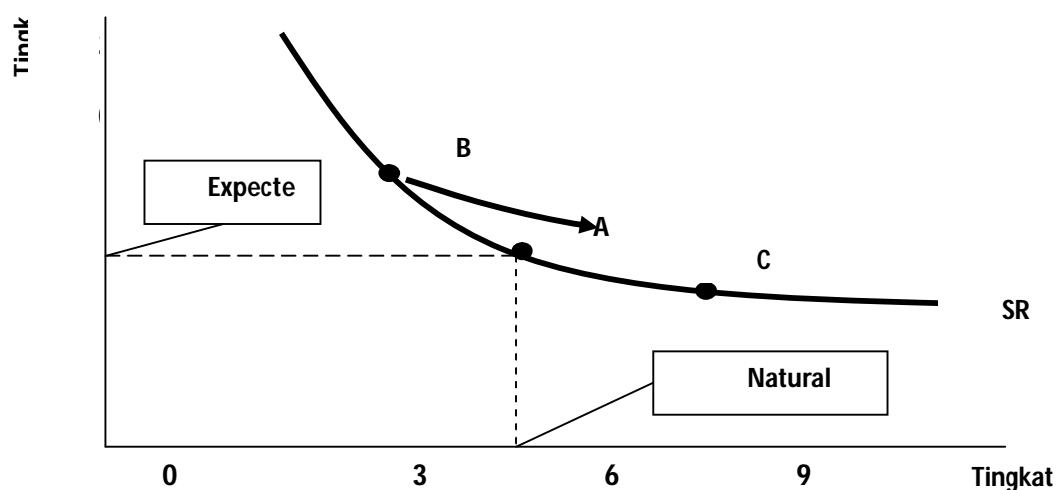


**Figure 1.** Curve of Philiph

**Source:** Manning (2008)

The Phillips curve in its modern form states that the rate of inflation depends on three forces:

a. Inflation has expected.
b. Deviation of the natural rate of unemployment which is called cyclical unemployment.
 c. Shocks offer this show in the following equation:

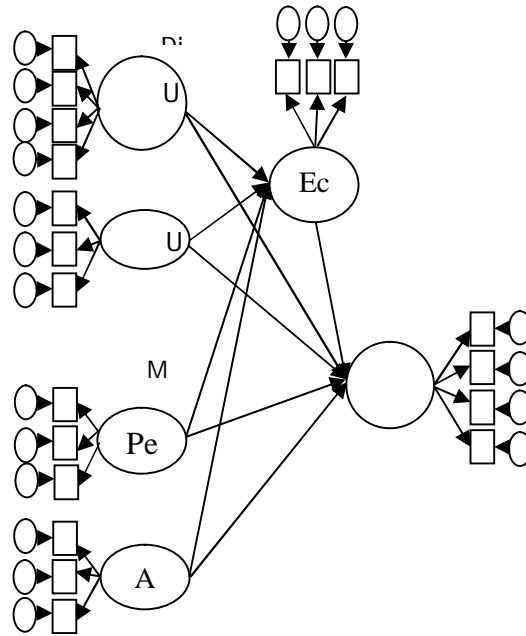$\pi = \pi^e - \beta (u-u^n) + v$

with :

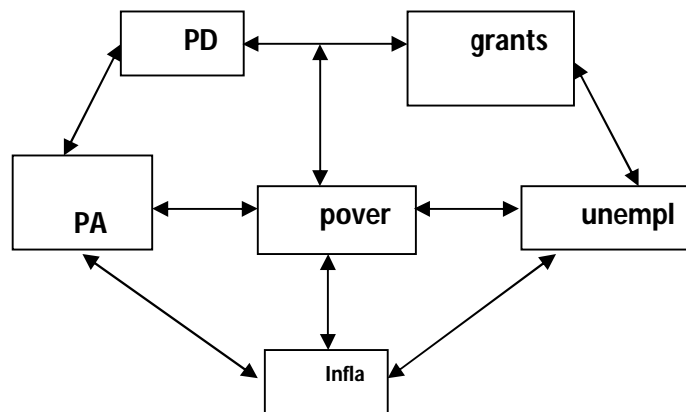$\pi$         = Inflation
$\pi^e$        =1qinflation expected
 $(u-u^n)$  = cyclical  unemployment
 v         = Supply Shock
$\beta$  =Parameter measuring the   response

**Figure2**. Framework for Model 1:
Diversifikation Economic Value (DEV-Poverty)



**Figure 3:** Framework for Model 2: Vector Auto regression poverty (VAK)

## III.    *Analysis And Result*

### III.1 Responen Characteristics by Sex

General description of respondents in this study is the poor people who are in poverty by gender, can be seen in Table 4.1 below:

**Tabel1.** Characteristics of Respondents by Gender

| Gender | Total (People) | (%) |
|---|---|---|
| Man | 184 | 70.77 |
| Woman | 76 | 29.23 |
| Total | 260 | 100,00 |

The results of the study by sex in Table 1 shows that the respondents Based on gender of the poor in Coal District of the 260 respondents who are most poor people sex women numbering 195 people (51.45%).

### III.2. Karakteristik Respondents by Education Level

General description of respondents in this study were poor in Coal District by level of education, can be seen in Table 4.2 below:

**Table2.**Characteristics of Respondents by Education Level

| Gender | Total | (%) |
|---|---|---|
| Unstudy | 94 | 56.20 |
| Ungraduate elementary school | 85 | 22.43 |
| Finish elementary school | 58 | 15.30 |
| Finish junior high school | 23 | 6.07 |
| total | 260 | 100 |

Based on table's 2, the majority of respondents still do not school at 94 or 56.20% of the poor. There is still a high level of education of the poor is because most of the respondents aged over 40 years.

**Table 3:** Total estimation C.R (Critical Ratio) and P-Value

|  |  |  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| ECVAL | <--- | UPI | .017 | .038 | .448 | .654 | par_8 |
| ECVAL | <--- | USPET | -.199 | .025 | -8.023 | *** | par_9 |
| ECVAL | <--- | PDDK | .243 | .045 | 5.366 | *** | par_12 |
| ECVAL | <--- | AAB | .541 | .043 | 12.569 | *** | par_15 |
| KMSK | <--- | ECVAL | 1.029 | .089 | 11.498 | *** | par_19 |
| KMSK | <--- | UPI | .089 | .043 | 2.085 | .037 | par_20 |
| KMSK | <--- | USPET | .069 | .025 | 2.741 | .006 | par_21 |
| KMSK | <--- | PDDK | -.002 | .045 | -.039 | .969 | par_22 |
| UPI4 | <--- | UPI | 1.000 |  |  |  |  |
| UPI3 | <--- | UPI | 1.438 | .104 | 13.764 | *** | par_1 |
| UPI2 | <--- | UPI | 1.235 | .098 | 12.654 | *** | par_2 |
| UPI1 | <--- | UPI | .789 | .088 | 8.934 | *** | par_3 |
| ECVAL1 | <--- | ECVAL | 1.000 |  |  |  |  |
| ECVAL2 | <--- | ECVAL | 1.017 | .093 | 10.929 | *** | par_4 |
| ECVAL3 | <--- | ECVAL | 1.328 | .105 | 12.610 | *** | par_5 |
| USPET3 | <--- | USPET | 1.000 |  |  |  |  |
| USPET2 | <--- | USPET | .820 | .067 | 12.327 | *** | par_6 |
| USPET1 | <--- | USPET | .403 | .045 | 8.852 | *** | par_7 |
| PDDK3 | <--- | PDDK | 1.000 |  |  |  |  |
| PDDK2 | <--- | PDDK | 1.077 | .123 | 8.738 | *** | par_10 |
| PDDK1 | <--- | PDDK | .917 | .104 | 8.800 | *** | par_11 |
| AAB3 | <--- | AAB | 1.000 |  |  |  |  |
| AAB2 | <--- | AAB | .937 | .051 | 18.500 | *** | par_13 |
| AAB1 | <--- | AAB | 1.022 | .054 | 19.093 | *** | par_14 |
| KMSK4 | <--- | KMSK | 1.000 |  |  |  |  |
| KMSK3 | <--- | KMSK | 1.246 | .090 | 13.905 | *** | par_16 |
| KMSK2 | <--- | KMSK | 1.056 | .084 | 12.551 | *** | par_17 |
| KMSK1 | <--- | KMSK | 1.068 | .088 | 12.083 | *** | par_18 |

## IV. Conclusion And Sugesstion

### IV.1. Conclusion

Based on the analysis and discussion that has been done, it can be concluded as follows:

1. Based on analysis of the Vector Auto regression known that one variable in the last term (t-1) significantly affects the variable itself and the other variables are shown:

2. Previous year's poverty, economic growth, regional income, inflation, and unemployment effect on poverty.

3. Economic growth a year earlier, revenue, inflation, unemployment, poverty impact on economic growth.

4. Local revenues a year earlier, inflation, unemployment, poverty and economic growth affect the revenue.

5. The previous year's inflation, unemployment, poverty, economic growth and regional income contributed to inflation

6. Previous unemployment, poverty, economic growth, revenue and inflation effect on unemployment

### IV.2. Suggestion

Advice of obtained from the results of these studies are:

1 Doesn't have significant effect of fishing effort on the economic value can be used as a basis for the enhancement of economic value, which in this case fishing equipment used in catching fish in the sea, and the like is not very feasible. If fishermen using motorized boats as well as boat owners are not yet as fishing laborers. Aid policy recommendation is more adequate equipment catches by fishermen with the credit system is very soft to the fishermen.

2 Doesn't have significant education in poverty mapping in mind that poverty is dominated by the presence of poor people who are not educated. Policy recommendations include poverty reduction through increased access to society to get a decent education, free and quality.

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