

Some Evidences from Indonesia on the Importance of Institutions for Determining 'Pro-Poor' Growth

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Abstract

Recent research on the role of institutions in economic development and poverty reduction indicates the importance of institutions, including local institutions. This study examines the importance of institutions as a means to support poverty alleviation policy in Indonesia. Specifically, it addresses two simple but very important policy-questions. First, how important is economic growth for poverty reduction in Indonesia? Second, how important are institutions in determining the poverty performance of economic growth? Though data, especially time series data, are limited, and some estimated regression coefficients are found to be not significant, overall, the findings suggest that improved institutions reflected by higher education enrolment; good health facilities, especially clinics, women empowerment; credit facilities, government development expenditures and cooperatives at the local/village level are all important for poverty reduction.

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JEL classification-.Ecnomic Grmwthjndonesia, Poverty

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I. INTRODUCTION

1.1 Background

At the beginning of the new order regime in 1966, the average Indonesian earned only roughly US\$50 a year; about 60% of adult Indonesians could not read or write; and close to 65% of the country's population lived in absolute poverty. Facing this condition, the new order government launched five-year economic development plans, with the first plan starting in 1969. The new order government also pursued several crucial economic policies in the 1970s and 1980s, including the liberalization of the foreign investment, trade regimes and the banking sector and the opening of the capital account.

During the new order (NO) government, industry and agriculture were two priority sectors. All these steps generated a sustained rapid economic growth since the late 1980s up to 1997 when the Asian financial crisis struck.

From the outset the government realized that without special efforts to alleviate poverty, high economic growth would not lead to poverty reduction. The government, therefore, has made serious efforts to fight poverty with special designed measures. The measures included labor intensive projects, particularly for unskilled workers, such as construction of village roads and technical irrigation, and better access to primary education and health care facilities for poor families through government subsidies and special programs, development of backward villages through the *Inpres Desa Tertinggal* (IDT) program under the Presidential Instruction for development of isolated/under-developed villages, and provision of micro credit schemes to boost the development of micro and small-scale enterprises.

The government also realized that interventions to implement aspects of a poverty-reducing strategy rely on a wide range of institutions. Hence, in addition to the above mentioned "pro-poor" policies, the government also took some measures to improve institutions, especially social institutions at the local level and particularly in rural areas. One effort to reduce poverty, which involves the poor themselves, was through the establishment of self-help schemes and coping mechanisms, including rural cooperatives such as *Koperasi Unit Desa* (KUD). Only after the crisis, specifically since the *reformasi*, more serious attempts were made by the government to women empowerment by introducing several measures, including eliminating

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discrimination by status or gender in education, improving female education, optimizing their role in the labor market and in the economy, and in politics, increasing their political voice.

1.2 Objective

This study focuses on the interface between economic growth and institutions, especially as these relate to poverty alleviation. In other. Specifically, this study addresses two simple but very important policy-questions. First, how important has economic growth been for poverty reduction in Indonesia? Second, how important have institutions been in affecting poverty alleviation in the course of economic growth?

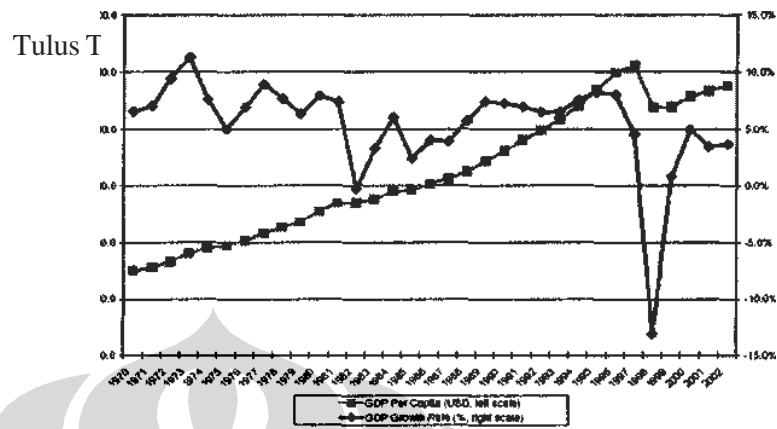
1.3 Methodology and Data

This study utilizes a simple OLS method in examining partial statistically correlations between institutions (represented by a number of indicators) and poverty. For some variables, for which time series data are not available, the regression analyses are based on a cross-section approach, and for other variables, for which annual data are available, a time-series approach is adopted. The analysis uses BPS data, namely annual data at the national level from two publications: Statistical Year Book of Indonesia and National Social Economy Survey (SUSENAS), and cross-sectional data at the district level from PODES 2003 (Village Potential 2003), covering 72 districts, and at the provincial level from BPS/UNDP publications on the Human Development Index covering 31 provinces.

1.4 Trends of Economic Growth and Poverty in Indonesia

Indonesia experienced many years of deteriorating economic performance during the 'old order' period. However, several years after Soeharto took power in 1966, which heralded the beginning of the 'new order' government, the country's economic conditions changed dramatically. From the macroeconomic perspective, the Indonesian economy performed very well, especially since the mid-1980s up to mid-1997, just before the 1997 Asian crisis occurred. Real GDP (*per capita*) increased significantly with an average annual growth rate per year of about 7%. However, by the last quarter of 1997, Indonesia was hit by an economic shock of considerable magnitude, leading to the fall in the country's GDP by 13.4% (Figure 1).

Figure 1 GDP per capita and GDP growth rate in Indonesia



Source: DPS [SI]

By the end of the 1960s, the average Indonesian earned only roughly US\$50 a year, and over 80% of the country's population lived on tiny, fragmented and scattered farms. They had little or no access either to rudimentary health care or to basic amenities of life, such as safe drinking water or adequate shelter. About 60% of adult Indonesians could not read nor write, and close to 65% of the country's population lived in absolute poverty. However, with sustained rapid economic growth during the new order era, income per capita has increased significantly and the percentage of population considered poor has declined dramatically. When the crisis occurred in 1997, reaching its climax in 1998, the poverty rate increased to 16.7% and reached its peak level at 23.5% in 1999. The rebound of the country's economy in 2000 has led to a drop again in poverty incidence (Table 1).

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Table 1
**Percentage of Population Living under Current Poverty Lines in
Indonesia (Headcount index): 1976-2004**

Year	Poor People (\leq)		
	Urban*	Rural**	National***
1976	38.8	40.4	40.1
1978	30.8	33.4	33.3
1980	29.0	28.4	28.6
1981	28.1	26.5	26.9
1984	23.1	21.2	21.6
1987	20.1	16.1	17.4
1990	16.8	14.3	15.1
1993	13.4	13.8	13.7
1996	9.7	12.3	11.3
1998	21.9	25.7	16.7
1999	19.4	26.0	23.5
2000	14.6	22.4	19.1
2001	9.8	24.8	18.4
2002	14.5	21.1	18.2
2003	13.57	20.23	17.4
2004	12.6	19.5	16.6

Notes: * = % of urban population; ** = % of rural population; *** = % of total population

Source: EPS
(SUSENAS)

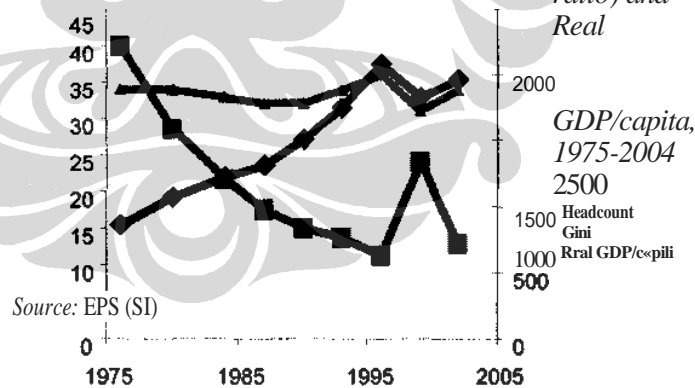
In the pre-crisis period, the poverty rate in rural areas declined faster than in urban areas. There were at least three causes: (i) agricultural output growth that led employment in the agricultural sector and farm income to increase; (ii) employment increased in rural non-farm activities, like agro-industries, trade, services and rural transportation as a result of improved rural infrastructure and rural-urban connections; and (iii) many unskilled workers, unabsorbed by the growth in agriculture and rural non-farm activities, migrated to urban areas and worked in labor-intensive manufacturing industries, such as food and beverages, textile and garments, leather products, electronics and footwear, construction, transportation and services. These were booming industries and sectors during the new order era.

The crisis caused the poverty rate in rural and urban areas to increase in 1998 and 1999. The increase of rural poverty in those two years was partly a result of returning unemployed people from urban areas. During the crisis, many laid-off workers, particularly from manufacturing industries and construction, the two sectors that were the hardest hit by the crisis, were reportedly leaving urban centers to return to their villages where subsistence could at least meet their basic needs. However, during the crisis when poverty in both urban and rural settings

was on the increase, many people, who had migrated from the rural to the urban areas, became unemployed but stayed in the cities and considered self-employment or any kind of low-paid work in the urban informal sector as an option (Amin, 1998; Hugo, 1998). Without doubt during the crisis agriculture together with the urban informal sector played an important role as the last resort for the laid off workers from the formal sector.

In the general development debate, economic growth is viewed as an important, though not sufficient, means of achieving reduction in poverty. Table 1 above or Figure 2 below seems to support this notion, showing that in the course of high economic growth leading to per capita income increases, especially before the crisis, poverty declined substantially. This "pro-poor" growth was attributed, among many others, to two main factors. First, the growth strategy adopted emphasized rapid increases in the demand for unskilled labor (Manning, 1998). Second, the growth strategy accompanied by poverty alleviation measures at least had protected the poor from becoming poorer as a consequence of the rapid economic growth that took place during that period. These poverty alleviation measures combined with the labor-intensive oriented growth strategy may have also influenced positively income distribution in Indonesia. Official statistics show that income distribution (measured by the *Gini* coefficient) improved somewhat from 1970s up to 1993, although from 1994 to 1995 it deteriorated a little bit, but thereafter slightly improved again (Figure 2).

Figure 2
Poverty Rate (headcount), Inequality (Gini ratio) and Real



II. THE IMPORTANCE OF INSTITUTIONS FOR POVERTY REDUCTION

2.1 Conceptual Framework

Institutions and their impact on economic growth and poverty reduction has been a subject of considerable interest in recent years. It is widely acknowledged that apart from the standard factors of production, capital, labor, land and technology, and other determinant factors, institutions matter substantially in determining the growth path and the outcome of development (North 1997). Institutions may often help in explaining why growth and development outcomes, including poverty reduction and improvement in income distribution, vary across areas, countries, and also over time. Olson and Kahkonen (2000) and Picciotto (1995) support the usefulness of the institutional economics approach.

The term "institutions" can have a broad meaning. It encompasses the somewhat separately developed ideas of (a) institutions as "rules of the game", (b) social capital, and the more diffused notions of (c) governance, and (d) civil society.¹ As one of the theoretical advances of his paper, Ahsan (2001) lays out a unified framework where all these concepts will be seen to be capable of being arranged and explained in a hierarchical order, such that all components fit in as special cases (or sub-categories) of more general ideas. The resulting construct serves as a general framework of "institutional capital" as relevant for analyzing economic growth and its effects on poverty².

Aron (1997) explains that institutions encompass a wide range of diverse indicators: of institutional quality (e.g. enforcement of property rights); political instability (e.g. riots, coups, assassinations, civil wars and executive turnover); characteristics of political regimes (e.g. elections, constitutions, structure and powers of the executive); "social capital" (e.g. extent of civic activity and organizations); and social characteristics (e.g. ethnic, religious, historical and income diversities).

He classified the measures of institutions into five categories, as follows: (i) "quality of institutions" measures, which capture the ease of doing business and respect of formal property rights; (ii) "characteristics of political institutions" measures, including constitutional rights and descriptions of regime type (e.g. "democracy") and duration; (iii)

¹ See e.g. North (1990, 1997), Arrow (1970), Coleman (1988), Collier (1998), Matthews (1986), and Ahsan (2001).

² See further Ahsan (2001) for further discussion on his approach.

"political instability" measures, including riots, strikes, civil war and changes in the executive; (iv) "social capital" measures, which capture the extent of civic activity and organizations; and (v) "social characteristics" measures, such as ethnic, income distributional, cultural, historical and religious diversities.³

Williamson (2000) classifies the institutional environment into a "macro" and "micro" reality or levels. The macro level deals with the rules of the game or the humanly devised constraints that structure political, economic and social interactions: the informal constraints (i.e. sanctions, taboos, customs, traditions and codes of conduct, and formal rules) constitutions, laws, and property rights. The micro level deals with institutions of governance such as market, quasi-market and hierarchical modes of contracting, or of managing transactions. Most formal and informal local institutions in rural areas in developing countries may fall into the micro category. As an example, Gandhi (1998) conducted a study based on a survey on institutions related to agricultural development in India. His study shows that households are usually embedded in the local institutional environment and they interact with it dynamically under the influence of prevailing social, economic and political structures, culture and power relations. Some institutions favor the poor, while others discriminate against them. The success of collective action for gaining access to resources and markets often depends on the effectiveness of institutions in serving their constituencies. The decisions that households make on how to allocate resources and generate income often depend, not only on the household's resources, but also on the local institutional environment.⁴

In this study, however, the term "institutions" being referred to is narrower. More specifically, this study analyses only "indicators" of institutions for which data are available. So, not all factors of institutions mentioned above are taken into consideration in this study.

2.2 Analytical Framework.

The analytical framework on the effects of institutions through development of these indicators is illustrated in Figure 3. Two important

³ See further Aron (1997) on a detailed typology of these measures including their literature references.

⁴ See other studies such as Bardhan (2000), Chelliah (2000), Donnelly-Roark, dkk. (2001), Gandhi (1998), Gandhi (1999), Grootaert and Narayan (2001), Olson and Kahkonen (2000), and Williamson (2000).

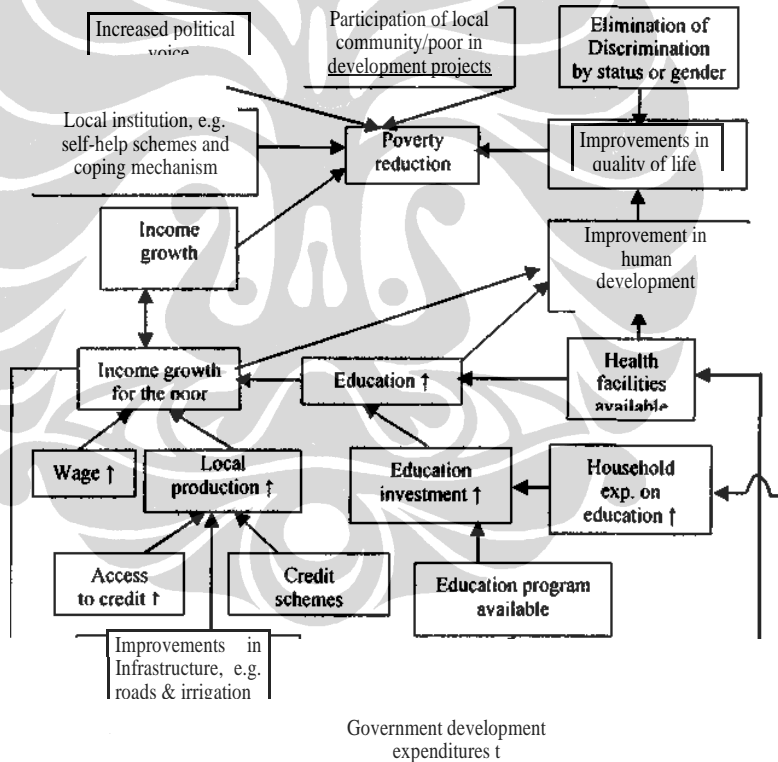
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components of the institutional endowment of nation, for which data (time series as well as cross-section data) are available, are included in the analysis: the institutions of social capital and the quality of public expenditures. *The first* component is measured by a number of indicators of social capital, including human development index (HDI), micro credit availability, assortment of the voice on politic/public policy issues. However, the importance of institutions through the development of these indicators for determining "pro-poor" growth has been left unattended thus far in the discussion, at least in Indonesia.

The second component is measured by three indicators: health, education and physical infrastructure, especially roads and irrigation. Improvements in these three elements depend much on government's development expenditures.

Figure 3 An analytical Framework on Institutions-Poverty



III. SOME FINDINGS

3.1 Human Development-Poverty

As demonstrated elsewhere, low productivity remains an important source of poverty in developing countries. Higher income and ownership of wealth remains closely correlated with higher levels of education. Low productivity, thus, originates in insufficient access to education. However, a more serious problem facing the poor in many developing countries lies in the growing disparity in the quality of education, which divides the rural and urban areas as well as the urban poor from much narrower elite. In such societies the principal inequity in the education sector is manifested in the growing divide between better educated elite with access to private as well as foreign education and the poor who remain condemned to remain captives within an insufficiently funded and poorly governed public education system. In an increasingly knowledge-based global economy, which is driving the information technology (IT) revolution, inequitable access to quality education, relevant to the dynamics of the market, could emerge as the principal deprivation of the poor (WEF, 2004).

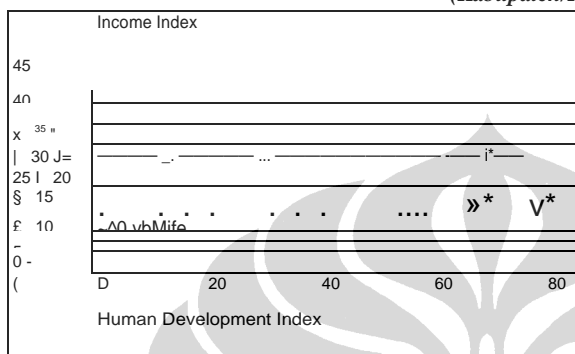
The cross-section analysis with PODES 2003 data from 72 districts in Indonesia supports this view. As shown in Figures 4 and Figures 5, the human development index (HDI), a general used indicator of educational level⁵, is positively correlated with income and negatively with poverty; and both regression coefficients are significant (although the elasticity are less than unity).

As officially stated by the Indonesian government, the major education policies in Indonesia emphasize human resource development and focus on: extending and creating more equitable educational opportunities; improving the quality and welfare of teachers; empowering educational institutions as centers for nurturing values, attitudes and capabilities; reforming and consolidating the education system, including through curriculum reform and decentralization; and

HDI consists of three dimensions: (i) a long and healthy life; (ii) knowledge; and (iii) a decent standard of living; and each dimension has its own indicators for measurement. The first dimension is indicated by life expectancy at birth; the second dimension has two indicators: adult literacy rate and mean years of schooling which both measure educational attainment; and the third one by adjusted real per capita expenditure (PPP rupiah for Indonesia). The indicators are presented by an index. So, HDI is computed based on three indices: life expectancy index, education index, and income index. In other words, the development of HDI reflects developments of institutions that are important, indirectly or directly, for poverty alleviation.

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 improving the quality of education institutions to help them to keep up
 with advances in science, technology and the arts (GOI, 2004).

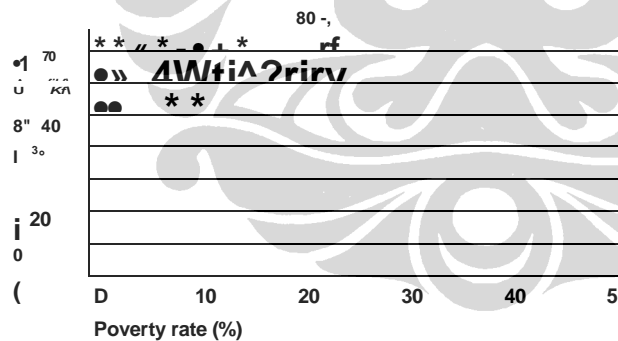
Figure 4 Scatter Diagram:
Human Development Index (HDI)-Income (Y); 72 districts
(Kabupaten/Kota), 2002



$$Y = -2384.02 + 0.412 \text{ HDI}$$

(2.52) (3.8)*
 * = t-statistics in brackets

Figure 5 Scatter Diagram:
Human Development Index (HDI)-Poverty (P); 72
districts (Kabupaten/Kota), 2002



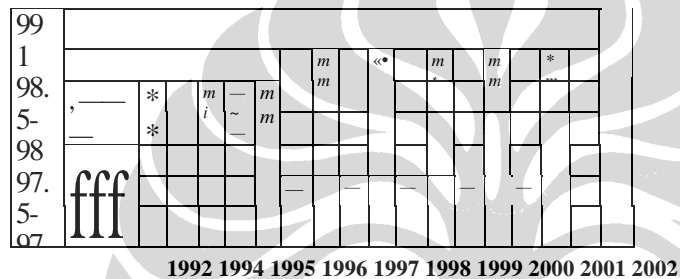
$$P = 89.3 - 0.6 \text{ HDI}$$

(8.2) (-6.2)*
 * = t-statistics in brackets

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Education improved greatly under the New Order government, leading to a decline in illiteracy rates and an increase in school participation rates. Data from the SUSENAS show that in 1992 literacy rates of the 15-24 age group increased from 96.6% to 98.7 % in 2002 (Figure 6). The remaining few per cent represent people in difficult-to-reach areas or the disabled. According to the official report, the near-universal literacy rates in this age group can be attributed to improved basic education enrolment ratios and improved survival rates to grade 5 (GOI, 2004). There are still some disparities between urban and rural areas as well as between rich and poor groups, although these gaps have narrowed since 1995 (not shown in this study).

Figure 6 Literacy rates of 15-24 years old in Indonesia: 1992-2002 (%)

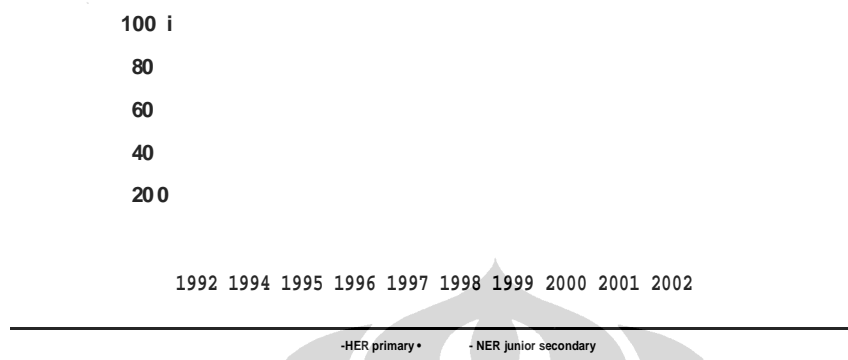


Source: BPS

SUSENAS data for 1992-2002 also show that Indonesia has achieved high levels of access to primary education for children aged 7 to 12 years. The net enrolment ratio (NER) has increased from 88.7% in 1992 to between 92% and 93% in 2002 (Figure 7). Data from the Ministry of National Education (MoNE) show slightly higher NERs over the years, i.e. 94% in 2002.⁶ The access to junior secondary education has also increased significantly since 1994, following the implementation of the Nine-Year Compulsory Basic Education Programme. The NER at junior secondary level increased from almost 42% in 1992 to almost 62% in 2002.

The differences in the data collection systems explain the slight differences between the two sources. SUSENAS uses household expenditure data, while the MoNE uses school-based data, which makes multiple counting a possibility, as there are children who go to more than one school. Also data from the MoNE are collected at the beginning of a school year, while SUSENAS data may not always be.

Figure 7
Net Enrolment Ratios in Primary (7-12) and Junior Secondary (13-15) Education Levels in Indonesia, 1992-2002 (%)



Source: EPS

SUSENAS data 2002 show consistently high NERs in primary schools in all population groups, with no significant disparities between rural and urban areas, between girls and boys, and between poverty quintiles (Table 2). Unlike in primary education, junior secondary education enrolment numbers show considerable disparities between rural and urban areas, and between poverty quintiles, but not, however, from a gender perspective. The NER in rural areas is significantly lower than that in urban areas, and the NER of the poorest quintile (49.9%) contrasts obviously with that of the richest quintile (72.3%) (Table 3).

Table 2
NER in Primary Schools by Poverty Quintile, Sex and Urban-Rural Areas, 2002

Poverty quintiles	National			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Q1	90.8	92.1	91.4	89.9	91.0	90.4	92.1	93.8	92.9
Q2	93.3	93.5	93.4	92.8	93.6	93.2	94.2	93.4	93.8
Q3	93.7	93.2	93.4	93.9	94.0	94.0	93.4	91.9	92.7
Q4	93.4	93.1	93.3	93.8	93.9	93.9	92.9	92.0	92.4
Q5	92.3	91.8	92.1	93.5	93.4	93.5	90.7	89.4	90.1
Average	92.7	92.8	92.7	92.6	93.1	92.8	92.8	92.3	92.6

Source: GOI (2004)

Table 3
NER in Junior Secondary Schools by Poverty Quintile, Sex and Urban-Rural Area, 2002

Poverty quin tiles	National			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Q1	47.3	52.7	49.9	39.5	41.9	40.6	57.6	66.1	61.8
Q2	58.2	59.7	58.9	49.4	51.1	50.2	70.5	71.1	70.8
Q3	63.4	64.9	64.1	55.0	57.6	56.3	75.8	75.3	75.5
Q4	68.5	68.3	68.4	61.2	61.7	61.5	78.9	77.5	78.2
Q5	73.7	70.8	72.3	68.6	68.2	68.4	80.6	74.3	77.4
Average	60.9	62.4	61.6	53.3	55.0	54.1	71.4	72.3	71.9

Source: GOI (2004)

In this study, the links between various school participation rates according to different school age groups and poverty are empirically estimated with regional data from 31 provinces. The results, as presented in **Table 4**, show that the correlation coefficients are negative as generally expected, although not all are significant, statistically. This suggests that for certain school age groups, poverty is more powerful as an explanatory factor of a variety in school participation rates than the other way around as an dependent variable in relation to school participation rate.

Table 4
School Participation Rate by Age Category and Poverty (P), 31 Provinces, 2002

Category	Regression Results (Partial Correlations)
7-12 years (SPR7-12)	$P = 158.8 - 0.544 \text{ SPR7-12}$ (3.9) (-3.43)* $P =$
13-15 years (SPR13-15)	44.8 - 0.28 SPR13-15 (2.6) (-1.5)
16-18 years (SPR16-18)	$P = 27.1 - 0.19 \text{ SPR16-18}$ (3.3) (-1.02)

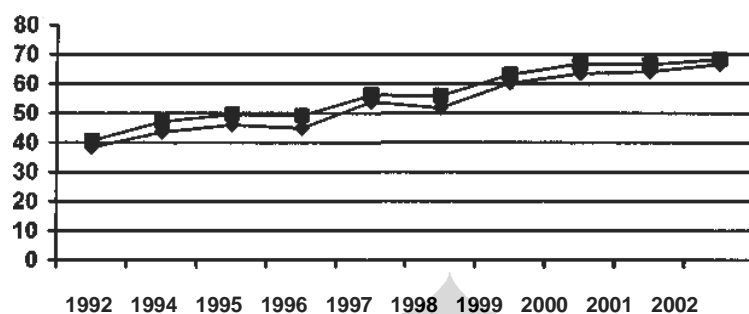
Note: * = t-statistics in brackets

Insufficient and inequitable access to health care is also compounding the inequities in education. The dominant problem in most developing countries, including Indonesia, is not the complete absence of health care but the incapacity of the public health care systems to deliver quality health care, to all areas, including isolated regions/islands in the country. Ill-provisioned health services expose the poor to a life of insecurity, where earning opportunities can be disrupted by episodes of illness. Poor health and nutrition can undermine both individual as well as national productivity and can influence the lifetime opportunities of the poor. In contrast, small elite who are positioned to avail of private and even foreign health care, enjoy high health standards. This growing disparity between the health status of the elite and the poor in such countries is inherently unjust, because it denies all citizens equal chances of living a healthy life and even to compete in the market place.

The health sector in Indonesia has seen significant investments since the late 1960s. Health policies have focused on establishing health facilities especially in rural areas. Preventive health care has also been prioritized, in particular, the provision of a clean drinking water supply, immunization, improved nutrition and pest control. Due to these policies, the proportion of births attended by medical personnel has increased from 40.7% in 1992 to 68.4% in 2002 for mothers of children younger than 1 year old and from 38.5% in 1992 to 66.7% in 2002 for mothers of children less than 5 years old (Figure 8).

Based on regional data from 31 provinces, Table 5 shows three health indicators and their statistical relationships with poverty. It appears that, statistically, the birth delivery assisted by medical personnel and health facility as indicators of health development perform much better than the average household expenditure for education and health in relation to poverty. Without doubt the establishment of health facilities, especially clinics, in rural areas, has been the most important effort of the new order government to improve the health and hence human resource condition of the rural community. This effort has therefore contributed significantly to the reduction of poverty during the New Order era.

Figures Proportions of birth attended by medical personnel, 1992-2002



•Children <5 years old - Children < 1 years old

Source: EPS

Table 5 Health Indicators and Poverty (P), 31 Provinces, 2002

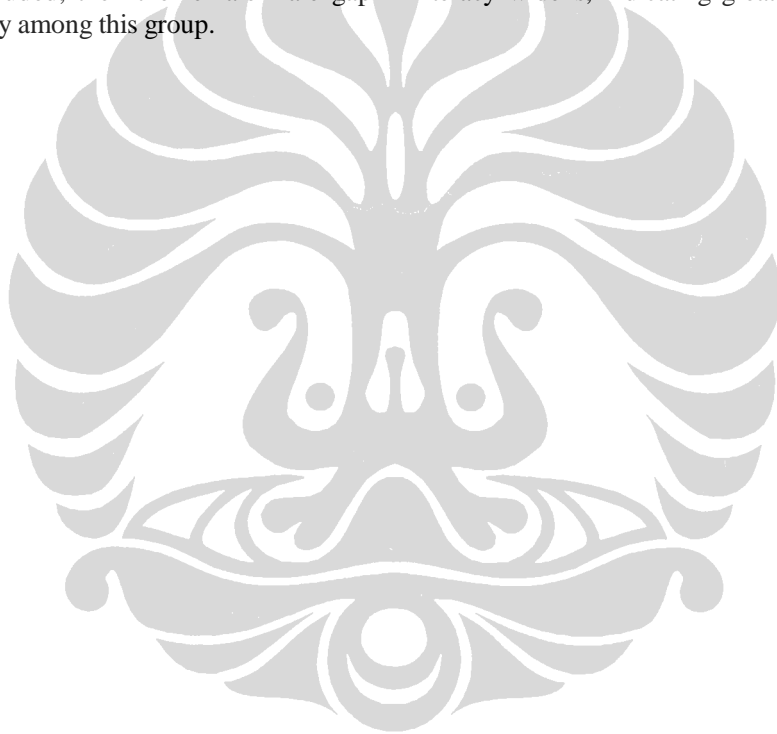
Category	Regression Results (Partial Correlations)
Household expenditure for education and health (HEEH)	$P = 26.98 - 0.32 \text{ HEEH}$ (5.6) (-1.76)* $P =$
Health facilities (HF)	$24.7 - 0.24 \text{ HF}$ (16.3) (-2.1)
Birth delivery assisted by medical personnel (BMP)	$P = 35.14 - 0.5 \text{ BMP}$ (6.13) (-3.01)

Note: * = t-statistics in brackets

3.2 Women empowerment

The past three decades have witnessed a steadily increasing awareness of the need to empower women through measures to increase social, economic and political equity, and broader access to fundamental human rights, improvements in nutrition, basic health, and education. Along with the awareness of the subordinate status of women has come the concept of gender as an overarching socio-cultural variable, seen in relation to other factors, such as race, class, age and ethnicity. Gender is not synonymous with women, nor is it a zero-sum game implying loss

This study examines three important dimensions of female empowerment, namely educational attainment, economic participation and participation in the political and legislative sector. With respect to the first dimension, Indonesia has achieved much progress in reducing gender disparity in education and literacy. This development can be seen by the following indicators. First, Figure 9 shows that at the primary and junior secondary levels, the ratio of female-to-male net enrolment ratio (NER) to be close to 100%. The ratio of the female-to-male NER at the senior secondary level was 97.1% in 2002 and over the previous 10 years had fluctuated between 95% and 104%. At the tertiary level, the female-to-male ratio in enrolment also increased overall from about 85.1% to almost 93% from 1992 to 2002. However, there was a decrease in 1997 and 1998 attributed to the economic crisis, which may have affected families' willingness to pay for girls to attend tertiary education (GOI, 2004). Overall, therefore, Indonesia has made good progress towards achieving gender equity in access to education. Next, Figure 10 shows that in earlier years, the literacy level of males was slightly higher than of females. In 1992, the literacy gender parity index was almost 98%, rising over the next decade reaching 99.8%. However, if older population groups (15 years and older) are included, then the female-male gap in literacy widens, indicating greater female illiteracy among this group.



Taking a cross-section approach using regional data, **Table 6** shows the correlations between women empowerment (represented by a number of indicators) and income and the poverty rate. Although all estimated coefficient correlations have the expected signs, not all are significant, statistically. For instance, the regression coefficient of the rate of participation of women in parliament on the poverty rate is negative but not significant; while the relation with income is significant.

Table 6 Women Empowerment Indicators, Poverty (P) and Income (Y)

Category	Regression Results (Partial Correlations)	Data	Period
Participation of Women in Parliament (<i>PWP</i>)	$P = 24.2 - 0.17 PWP$ (14.4) (-1.43)* $Y = 842.54 + 0.35 PWP$ (6.9) (3.1)	31 provinces 72 districts	2002 2002
Participation of Women in Parliament (<i>PWP</i>)	$P = 83.3 - 0.44 FAP$ (3-D) (-1-7)	National	1976-2003
Percentage of female in total economic active population (<i>FAP</i>)	$P = 51.6 - 0.6SF$ (5.5) (-3.5)	31 provinces	2002
Mean years of schooling of female (<i>SF</i>)			

Note: * = t-statistics in brackets

3.3 Local Institutions

The most important factor to reduce poverty is to increase the capability of the poor to improve their income condition, and this is closely related to their capability to benefit from economic growth, either through the output market or the inputs (e.g. labor) market. In the labor market, it depends on the capacity of the poor to fill the high-income employment opportunities. In the output market, it depends on their capacity to operate on more equal turns in the market place, and this is determined in considerable measure by their capacity for collective action. The weakness of the poor in the market place originates in their isolation; that is why poverty in developing countries, such as Indonesia, is concentrated in rural areas, especially in isolated regions. Here improvement in local institutions, whether sponsored by nongovernment organizations (NGOs) or representing collective action by

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the poor in the form of marketing cooperatives or corporate bodies of the poor, is crucial.

In Indonesia, especially since the implementation of regional autonomy/decentralization followed the economic crisis, serious attention has been paid to the potential role of local institutions in reducing poverty and enhancing equitable prosperity. Even now, decentralized governments are being urged to join rural people in creating sustainable and accountable local development. Many regional governments have realized that, for the rural decentralization process to promote equitable but growth-oriented development over the long-term, it must include the aspirations, capacities, and institutions of the majority rural population.

This study has tried to examine the importance of local institutions on poverty reduction by using regional data. However, due to lack of secondary data on various types of local institutions that exist in rural areas in Indonesia, this study only focuses on local farmers associations and government sponsored village cooperatives, known as *Koperasi Unit Desa* (KUD) in only 72 districts. The analysis yields, however, controversial results. The sign of the correlation between local farmers associations and poverty is positive, not negative as generally expected. The scatter diagram indicates that in many districts with different poverty rates, all villages have active farmers associations (Figure 13); whereas, the statistical relationship between KUD and poverty is negative, but not significant (Figure 14).

The results can be attributed to at least three reasons. First, KUDs (maybe not all but in general) have activities/programs which are directly important for businesses of their members, such as providing cheaper raw materials or assisting marketing or acting as distributors; whereas, farmers associations usually have only one main activity, namely organizing regular meetings to discuss current problems in farming activities among members. Second, agriculture is not the main activity in all villages, so the presence of farmers' cooperatives in these villages, even if they have programs which benefit farmers directly, has only a small impact, especially if much of poverty is found in other sectors or in key sectors other than agriculture. Third, while a farmer association is sector oriented (i.e. agriculture), the KUD is a village level cooperative or cross-sector oriented, meaning that the KUD covers broader activities. At least theoretically, the presence of an active KUD in a village may have a greater impact on the village's economy, especially if all producers from all sectors are active members.

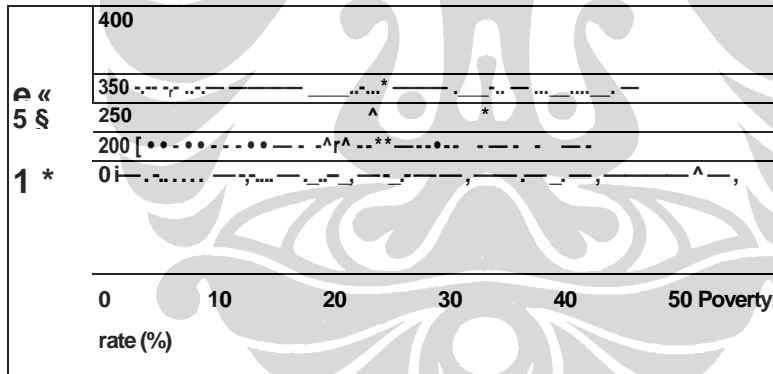
Figure 13 Scatter Diagram:
 Strong/active local farmers associations (FC) -poverty (P); 72
 districts (Kabupaten/Kota), 2002



$$P = 8.9 + 0.4 FC$$

(2.5) (3.84)*
 * = t-statistics in brackets

Figure 14: Scatter Diagram:
 Rural cooperatives (KUD) -poverty (P); 72
 districts (Kabupaten/Kota), 2002



$$P = 23.999 - 0.122 KUD$$

(11.8) (1.03)*
 * = t-statistics in brackets

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IV. GOVERNMENT DEVELOPMENT EXPENDITURE

In Indonesia, government development expenditure has always been dominated by poverty eradication policies. Based on Law No.24/2000, poverty eradication is articulated by three programs: equitable fulfillment of basic needs, such as essential food, basic health, education and housing services for poor families and communities/villages; the development of an entrepreneurial culture among the poor to enable them to be more productive economically and self-reliant; and the development of a social security system to protect vulnerable children, the elderly and the disabled (GOI, 2004).

The first program is implemented through providing essential food supplies; implementing price controls; providing basic services, especially in health and education; expanding out-reach services; and improving the environment and housing, including a clean water supply. The second program is implemented through providing education and training in entrepreneurial skills; technical assistance to micro, small and medium enterprises; promoting entrepreneurial networks and partnerships supported by local organizations, local governments, the private sector and universities; improving access to resources, including bank credit, raw materials and technology; providing infrastructure and facilities that enable the poor to conduct high value added economic activities; and supplying transmigration settlements for landless farmers. The third program is implemented through developing culturally appropriate and effective social security systems; maintaining existing social security systems; and strengthening community and government capacities in managing social security systems.

There are many other development programs with activities that indirectly support poverty reduction, including activities to support development in agriculture and of infrastructure, such as village or district roads. Table 7 may give some idea about the importance of government development expenditure on poverty reduction.

Table 7
Development Expenditure by Category and Rural Poverty (RP);
National, 1981-1997

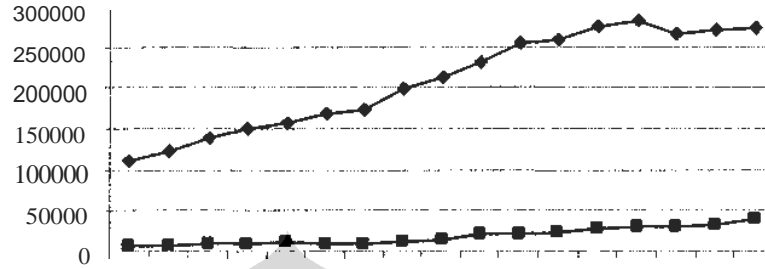
Category	Regression Results (Partial Correlations)
Total Development Expenditure (DE)	RP = 23.1 - 0.78 TDE (16.03) (-4.8)* RP = 22.002 - 0.78 DSV
Development subsidy to villages (DSV)	(16.44) (-4.5)*
Development subsidy to regencies (DSR)	RP= 19.12 - 0.58 DSR (16.1) (-2.8)* RP= 20.74 - 0.66 DSP
Development subsidy to provinces (DSP)	(14.9) (-3.4)* RP= 20.13 - 0.703 RRD
Retribution for regional development (RRD)	(17.7) (-3.8)* RP = 20.1 - 0.397 DEA
Development Expenditure to agriculture (DEA)	(9.54) (-1.7)*

Note: * = t-statistics in brackets

Development of infrastructure such as road in districts or villages and modern/technical irrigation can also be used as proxies of government development expenditures to analyze the impact of government expenditure on poverty reduction. Using national data for 1981-1997, **Figure 15** indicates that government's development expenditure has contributed a lot to the development of infrastructure, especially roads at the district level. **Table 8** also shows that district roads and irrigation land have positive and significant effects on poverty reduction in rural areas, as good and well-developed roads in rural areas connect the rural poor with broader markets and thus give those more opportunities to improve their economic conditions.

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Figure 15
District-level Infrastructure (DR)-total development
expenditure (TDE); national, 1981-1997



- District/Regency Road (km)
- Total development expenditures (bill. Rupiah)

$$DR = 110887.3 + 0.93 TDE$$

(0.6) (9.5)*
* = t-statistics in brackets

Table 8 Infrastructure and
Rural Poverty (RP); National, 1981-1997

Category	Regression Results (Partial Correlations)
District Road (DR) Technical irrigation land (IRI)	$RP = 31.4 - 0.93 \text{ Road}$ (20.93) (-9.96)* $RP = 96.02 - 0.698 \text{ IRI}$ (4.6) (-3.8)

Note: * = t-statistics in brackets

V. MICRO CREDITS

Nowhere is there a greater need for developing a macro-perspective for poverty eradication than in the area of monetary policy. The instruments of monetary policy appear to be exclusively targeted towards ensuring macroeconomic stability, moderating inflation and meeting the credit needs of the corporate sector. The financial needs of the poor, once left to the informal sector, have now been segregated in the micro-credit market. This apartheid within the monetary system remains a major

anomaly in the global development discourse. The micro-credit movement has, in many ways, revolutionized the banking system of many countries, such as Indonesia, by moving a large segment of the rural population from the informal to the formal capital market through access to institutional credit. In Indonesia, since the New Order era up to the crisis better access to bank credits for the poor, such as owners of micro and small enterprises and farmers, has been an important instrument of its poverty eradication policies.

However, it is generally argued that a special credit system for the poor, such as micro credit schemes with subsidized interest rates, is not the panacea for poverty eradication. Micro-credit can never aspire to eradicate poverty since it only addresses one component of the various markets which condition the lives of the rural poor. It is arguable that by locking the poor into the micro-credit system, based on the fiduciary responsibility of the household, they have been excluded from participating in the macro economy, and have been isolated from collective action and condemned to live on the fringes of the poverty line. It is, therefore, not surprising that countries with the most substantive exposure to micro-credit, remain mired in poverty. It does not mean, however, that that micro-credit is not important for alleviating poverty (Sobhan, 2005).

Table 9 gives some indication on the importance of credit facilities for rural poverty alleviation. The analysis using district data does not yield satisfactory results; while data at the national level show that credit has a positive effect, either directly or indirectly, on poverty reduction in rural areas. **Figures 16** and **17** may give some idea how important bank credit is to agriculture for rural poverty eradication through development of irrigation lands and district roads.

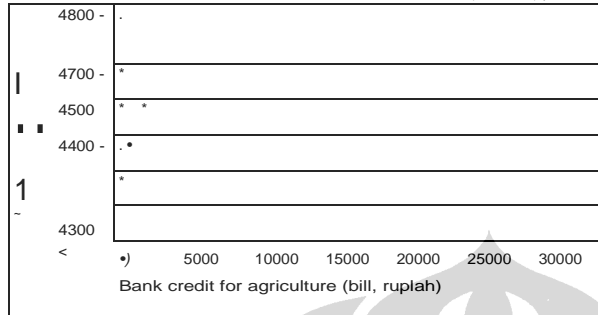
Table 9 *Credit facilities and rural poverty (RP)*

Category	Regression Results (Partial Correlations)	Data	Period
Local bank as) Credit facilities (CF) Bank credit to agriculture (BCA)	$RP = 22.2 - 0.012 LB (16.3) (-0.1)^*$ $RP = 18.3 + 0.144 CF (5.6) (1.2) RP$ $= 20.33 - 0.72 BCA (17.8) (-3.97)$	72 districts 72 districts National	2002 2002 1981-97

Note: * = t-statistics in brackets

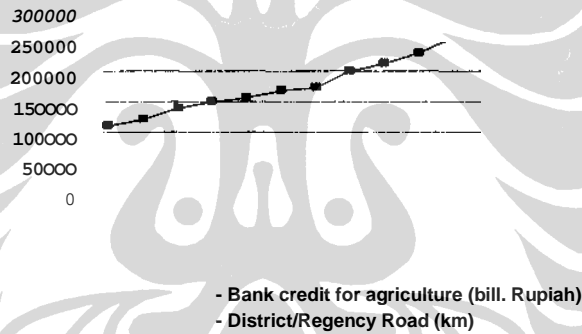
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Figure 16
Technical irrigation land (IRI) - Bank Credit to Agriculture (BCA); national, 1981-1997



$IRI = 4265.1 + 0.97 \text{ BCA}$
(274.1) (15.51)*
* = t-statistics in brackets

Figure 17
Infrastructure (road)-bank credit to agriculture (BCA); national, 1981-1997



$Road = 154364 + 0.854 \text{ BCA}$
(13.5) (6.4)*
* = t-statistics in brackets

VI. CONCLUDING REMARKS

Recent research on the role of institutions in economic development and poverty reduction indicates the importance of institutions, including local institutions. Although it is far from perfect, this study is the first one ever done in examining the importance of institutions for poverty eradication in Indonesia. Though data, especially time series data on indicators of institutions are limited, and some estimated correlation coefficients are found to be not significant, overall the findings suggest that better

education enrolment has played an important role in poverty reduction. In addition, good health facilities, especially clinics, local institutions (especially KUD), women empowerment; credit facilities and government development expenditures are also important for poverty reduction. However, these "institution indicators" play an indirect role; the most important and direct factor is economic growth which affects poverty reduction positively through two channels, namely employment growth and income increases.

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