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Poverty Reduction in Vietnam, 2001–2005: Trickle-Down Effect or PRSP Effect? *

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Abstract

Vietnam is one of the few countries which implemented PRSP in Southeast Asia, and its poverty reduction after the introduction of Doi Moi policy has been remarkable. Many, including IMF and the World Bank, praise the success of the poverty reduction in Vietnam. However, the question whether the success could mostly be attributed to the installation of the PRSP scheme or not requires careful examination since the full-PRSP was approved only in 2002 as an action plan of already enacted Ten Year Socio-Economic Development Strategy for 2001–2010 and Five Year Socio-Economic Development Plan for 2001–2005. Moreover, the PRSP for Vietnam was named *Comprehensive Poverty Reduction and Growth Strategy (CPRGS)*, and thereby the government made it clear that poverty can not be reduced without economic growth. The present paper tries to answer the question through the analysis of the regional differences of poverty reduction for the period of 2001–2005. It examines the impacts of industrialization, state budget expenditure, and poverty focused policies on poverty reduction. The paper concludes that the poverty reduction in Vietnam in the period of CPRGS was caused mainly by the trickle down effect, and the role of the installation of PRSP scheme was supplementary.

1. Introduction

After the installation of Doi Moi (Reform) policy in 1986, Vietnam has accomplished remarkable economic growth with some fluctuations mainly caused by the state of FDI inflow. The average annual GDP growth rate for the period of 1990–2005 was 7.5%. Such good macroeconomic performance gave favorable influences to per capita income and poverty situation. Table 1 shows the clear trend of increase in per capita income and the associated reduction of poverty incidents measured by the head count ratio, although, like other rapidly growing economies, it at the same time shows the existence of higher poverty incidents in rural area and worsening nationwide income equality. Overall, there seems to be a consensus among donor community that the installation of PRSP (Poverty Reduction Strategy Paper) scheme in Vietnam has been successful. Vietnam began to prepare for the PRSP in 2000, and the interim-PRSP (I-PRSP) was completed and approved by IMF and the World Bank in March 2001.

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The full-PRSP, titled *The Comprehensive Poverty Reduction and Growth Strategy (CPRGS)* (The Socialist Republic of Vietnam 2003) and covering the period of 2001–2005, was approved by the Prime Minister in May 2002 and by IMF and the World Bank in July 2002. However, due to the decision to add a chapter on infrastructure, the final version of CPRGS was published later in November 2003. The IMF and the World Bank evaluated the performance in their Joint Staff Advisory Note, and wrote "Overall progress over the period of the CPRGS has been impressive" (IMF and IDA, Vietnam 2006: 2).

Table 1 Long-run Growth, Poverty Reduction and Inequality in Vietnam

	1993	1998	2002	2004
GDP per capita (current prices, US$)	189	360	439	548
GDP per capita index at 1994 prices (1993＝100)	100	138	167	186
Average annal growth rate of GDP per capita(%)*	-	6.6	4.9	5.4
Poverty rates (head count index, %): National	58.1	37.4	28.9	19.5
Urban	25.1	9.2	6.6	-
Rural	66.4	45.5	35.6	-
Inequality (Gini coefficients, %): National	0.34	0.35	0.42	-
Urban	0.35	0.34	0.41	-
Rural	0.28	0.27	0.36	-

Notes: * Average growth rates are the average from the previous year shown above.
Data source:
1. GDP per capita in US$, GDP per capiata index and growth are author's calculation
2. Poverty rates and Inequality indices are from Klump and Bonschab (2004) p. 14.

However, the pure impact of poverty-focused[1] policies in CPRGS on the poverty reduction is unclear. We can not naively attribute the Vietnam's success in poverty reduction to the policy changes caused by the installation of PRSP scheme. The background and the process of the CPRGS had been different mainly in three points from other PRSP eligible countries such as those in Sub-Saharan Africa.

First of all, the poverty had been reduced continuously after Doi Moi, not suddenly after the installation of I-PRSP in 2001. Klump and Bonschab (2004), the most comprehensive and analytical study on the poverty reduction in Vietnam, has compared the poverty situations in 1993, 1998, and 2002[2] and analyzed the impacts of macro economic policies, institutional changes, and pro-poor spending under the conceptual framework of "pro-poor growth." They have shown that the poverty incidents were reduced continuously after 1993 and indicated that the impacts of the pro-poor spending on poverty reduction were rather limited in comparison with other development policies. The Vietnamese government had set up their poverty reduction policies already in 1988 by its own

initiative[3]. They are the National Target Program on Hunger Eradication and Poverty Reduction for the 1998–2000 period (Decision No. 133/1998/QD-TTg) and the Program on Socio-Economic Development in Especially Disadvantaged Communes in Mountains, Isolated and Remote Areas for the period of 1998–2005 (Decision No. 135/1998/QD-TTg; hereafter Program 135).

Secondly, the influence of the opinions of the World Bank and IMF in the drafting process of CPGRS was relatively weak in the case of Vietnam. It was drafted under the strong ownership of the Vietnamese government, and the words "Comprehensive" and "Growth Strategy" were added to the title of the PRSP. Moreover, the Japanese government stressed the importance of infrastructure[4] as a key vehicle of growth and poverty reduction, and finally a chapter on infrastructure was added. Therefore, in CPRGS, there is less emphasis on direct measures for poverty reduction. For example, the annual progress report of CPRGS for 2004–2005[5] spends only one section for direct poverty reduction policies among the five sections on incentive policies to promote growth and poverty reduction.

Thirdly, the government of Vietnam did not characterize the CPRGS as a document of top priority in the development framework of Vietnam[6]. The most basic plan is the Ten Year Socio-Economic Development Strategy for the 2001–2010 Period. It needed to be approved by the parliament because of its importance, whereas the CPRGS required only the approval of the prime minister. The government perception on the role of CPRGS is obvious in the statement that "CPRGS is an action program that translates the Government's Ten-Year Socio-economic Development Strategy, Five-Year Socio-economic Plan as well as other sectoral development plans into concrete measures..."[7]

With such understanding, this paper tries to access particularly the impact of poverty-focused policies in CPRGS in order to give an answer to the question whether the poverty reduction during the CPRGS period could be attributed mainly to the trickle down effect of the open-door development strategy with its focus on industrialization or mainly to the PRSP effect with more direct focus on poverty reduction. The core problem of the analysis is how to distinguish these two effects. However, in order to fully distinguish the impacts of simultaneously implemented policies, we need to build a comprehensive simulation model. Since it is not an easy task, this study applies an indirect and simple method under a reasonable assumption. It pays attention to the regional difference of poverty incidents instead of income difference among household groups. It assumes that if regional performance of poverty reduction was closely related with the degree of regional industrial development, the trickle down effect dominated. If the degree of the poverty reduction exceeded the expected level by the degree of regional industrial development, the PRSP effect dominated. The paper also examines the pattern of the government spending for the poverty reduction to find out whether it was really designed to reduce poverty. The analysis basically covers the period of CPRGS (2001–2005), and compares the figures before the implementation of CPRGS and the figures at the completion of CPRGS. The years for comparison slightly vary depending on the availability of data.

The composition of this paper is as follows. Section 2 examines the regional poverty trend. Section 3 summarizes the resource mobilization for poverty reduction. The trend of regional industrial development will be given in Section 4. Section 5 tries to examine the contribution of the PRSP process to the poverty reduction in Vietnam.

2. Regional Poverty and Inequality Trend

It is a well known fact that the poverty ratio measured by head count index does not represent the whole picture of poverty incidents. Therefore, most of the literature which addresses the relation between poverty and economic growth pay attention also to the income inequality[8]. One of the sophisticated methods to look at the income (expenditure) growth of various income (expenditure) cohorts is to draw "Growth Incidence Curve (GIC)". According to the estimation of GIC for the period of 1998–2002 by Klump and Bonschab (2004: 19), the per capita expenditure growth of the population below the national poverty line was lower than the one of the population above the poverty line. Moreover, higher the per capita expenditure, higher the growth rate of per capita expenditure. Here, avoiding the measurement of complicated GIC for 1998 – 2004, we will rather look at both the change of regional poverty ratio (Table 2) and the change of regional income inequality (Table 3).

The national poverty rate measured by the head count index almost halved during 1998–2004. Among the regions, the sizable decrease of the poverty rate to lower level was observed mainly in lowland and urban areas. In particular, it was remarkable in Red River Delta which includes Hanoi. Within the rural regions, the decrease was more prominent in lowland regions such as North East, South Central Coast and Mekong Delta than the highland regions such as North West[9] and Central Highlands. The poverty ratio in South East which includes Ho Chi Min city (HCM) had been low from the beginning.

One of the short comings of using the poverty rate for comparison among regions is that it can not reflect the size of people under the poverty line. To cope with this problem, number of regional population below the poverty line was estimated and given in Table 2. Large number of poor people lived in Red River Delta, North East, North Central Coast, and Mekong Delta. The number of poor in the poorest North West was relatively small.

Table 2 also gives both the absolute and percentage decrease of the population blow poverty line from 2002 to 2004. National average was 31% and the contribution of each region is also given. Remarkable number of people escaped poverty in Red River Delta and North Central Coast.

Overall, we may summarize that, firstly, the poverty reduction was remarkable in low-land regions in terms of number of people; secondly, among high-lands, Central Highland's poverty ratio reduced quite rapidly whereas the improvement in North West was limited.

Table 3 shows the change of regional income inequality. According to the estimation of Klump and

Table 2 Regional Poverty Trend

	Head count index (%)			Popultion(1000) below poverty line		Decrease of population below poverty line (from 2002 to 2004)		
	1998	2002	2004	2002	2004	Rate of change, %	1000 persons	Contributi-on ratio, %
National	37.4	28.9	19.5	23041	15996	−30.6	6154(7045)*	100.0
Urban	9.2	6.6	-	-	-	-		
Rural	45.5	35.6	-	-	-	-		
Red River Delta	29.3	22.4	12.1	3910	2158	−44.8	1751.9	28.5
North East＋North West	64.2	43.9	-	-	-	-		
North East	62.0	38.4	29.4	3509	2718	−22.5	790.8	12.9
North West	73.4	68.0	58.6	1598	1479	−7.5	119.2	1.9
North Central Coast	48.1	43.9	31.9	4521	3351	−25.9	1170.5	19.0
South Central Coast	34.5	25.2	19.0	1710	1326	−22.4	383.6	6.2
Central Highlands	52.4	51.8	33.1	2283	1547	−32.2	735.9	12.0
South East	12.2	10.6	5.4	1333	712	−46.6	620.9	10.1
Mekong Delta	36.9	23.4	19.5	3911	3330	−14.9	581.2	9.4

Notes: 1. The head count index is the “general poverty index” defined by General Statistics Office(GSO).
The index is measured based on the per capita expenditure.
2. Population below poverty was calculated by multiplying head count index by population.
3. * 7045 is calculated from national poverty head count index, while 6145 is the sum of the regional data.
The difference indicate the inconsistency of the head count indices between national data and regional data.

Source: 1. Head count indices for 1998 and indices for Urban, Rural, and North East ＋ North West of 2002 are from Klump and Bonschab (2004) p. 14.
2. Head count indices for 2002 (excluding the above listed ones) and 2004 and population are from GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

Bonshab (2004), the Gini coefficient at national level had increased from 0.35 in 1998 to 0.42 in 2002, and the trend is similar in each regions. This means that, as a result of economic growth, the people below poverty line had decreased, while inequality in income had aggravated. In other words, there was a trickle down of the economic growth to all, but in the higher degree to higher income cohort. As for the change between 2002 and 2004 during CPRGS implementation, the ratio of the monthly average per capita income of the highest income quantile to that of the lowest income quantile is given since Gini coefficient is not available. The figures show a slight increase of the inequality in all the regions with the ratios at national level changing from 8.1 in 2002 to 8.3 in 2004. One of the important observations is that inequality has increased in rural area from 6.0 to 6.4 whereas it remained unchanged in urban area at 8.1. This might indicate that the middle class are being generated in urban area and that the economic growth is giving uneven opportunities among people in rural area.

Table 3 Regional Inequality Trend

	Gini coefficient (%)		Per capita income ratio (highest income quantile / lowest income quantile)		
	1998	2002	1999	2002	2004
National	0.35	0.42	7.6	8.1	8.3
Urban	0.34	0.41	7.4	8.1	8.1
Rural	0.27	0.36	6.3	6.0	6.4
Red River Delta	0.32	0.39	7.0	6.7	7.0
North East＋North West	0.26	-	6.8	-	-
North East	-	0.36	-	6.0	7.0
North West	-	0.37	-	6.0	6.4
North Central Coast	0.29	0.36	6.9	5.8	6.0
South Central Coast	0.33	0.35	6.3	5.8	6.5
Central Highlands	0.31	0.37	12.9	6.8	7.6
South East	0.36	0.42	10.3	8.7	8.7
Mekong Delta	0.30	0.39	7.9	7.1	6.7

Source: 1. Gini coefficients are from Klump and Bonschab (2004) p. 14.
2. Per capita income ratio is calculated from GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

Finally a note should be given about the impact of the private income transfer on the income inequality. Although data on the private transfer between regions are not available, at national level, Shinkai (2007: 44–46) found that the private transfer had aggravated the inequality among the income quintiles according to the data of Vietnam Living Standard Survey (VLSS) 2002. Her finding indicates that the impact of the private transfer on the poverty rate was limited because the transfer happened mainly between the middle and higher income groups.

3. Resource Mobilization for Poverty Reduction

The CPRGS is composed of the general growth strategy and the poverty reduction strategy. The amount of state budget to be mobilized for poverty reduction was projected to be 84475 billion dongs for 2003–2005, of which 64% being recurrent expenditure and the rest being investment expenditure[10]. The policies for poverty reduction in CPRGS was diversified and can be summarized as follows based on the explanation in The Steering Committee of CPRGS (2005: 82–96).

The poverty reduction policy can be classified into three[11]; direct supportive policies, special supportive policies for disadvantaged areas, and indirect supportive policies. The direct policy is again classified into general poverty reduction projects (such as micro-credit, business orientation,

agricultural extension, and model projects for poverty reduction in poor regions) and poverty reduction projects for communes not entitled to Program 135. The total loan amount of micro-credit given to poor household and other entitled people had increased at the annual average rate of 20% during 2001–2005 and fulfilled the project target in 2004. The credit was given to 75% of poor households. Agriculture, forestry and fishery extension services were given through training courses and through demonstration projects which covered over 2 million people. 2 million is slightly less than the 10% of the poor population in 2004. Technical services were also given to those engaged in agro-based production or business. Model projects for poverty reduction were set up in 83 communes in 20 provinces. The infrastructure (irrigation, road, water, electricity, schools, and markets) improvement at commune levels were conducted in 997 poor communes by both local government budgets and commune budgets, but such projects covered only 40% of the need.

The core of the special supportive policies to the poor in remote, isolated and ethnic minority areas was the Program 135. In addition, there were Social and Economic Development Programme for Communes in Extreme Difficulties in Ethnic and Mountainous Area (SEDEMA), The Social and Economic Development Program for 6 Northern Border Provinces, The Central Highlands Program, and so forth. These policies cover wide areas such as infrastructure, price support, education, health care, and culture. Moreover, direct financial supports were given to minority households in extreme difficulties.

The indirect policies covered wide sectors. The educational development strategy aims at universal primary and secondary education by 2010, and improvement of the educational infrastructure, quality and efficiency. Supports for the poor and ethnic students were also given. Health care policies strengthened the grass-root health care network. Although there was improvement in the access of the poor to the commune health stations at free of charge, there still remain a lot of problems in terms of the quality of medical care and financing. The social welfare system is gradually expanded and helps the disadvantaged and vulnerable groups through supply of funds and medical care. The last indirect support policy is the environmental policy for reasonable exploitation and effective use of natural resources.

It is not easy to access the impacts of the above listed policies. Some of them, like, education policy will contribute to the poverty reduction in the long run. Some of them, like health care, will contribute to the living condition but not much to income. Also, it is almost impossible to evaluate all the projects in order to access the outcomes of the government's efforts of the resource mobilization. Therefore, we will instead examine inputs, i.e., the government spending directly related to poverty reduction.

The change in state budget is given in Table 4. The expenditure items presumably directly related to poverty reduction are education, health care, population and family planning, and pension and social relief. We will compare the figures in 2001, the initial year of CPRGS, and 2004, the year of

the latest data. Among these items, the governments spent the largest share in terms of cumulatives from 2001 through 2004 on education (12.1%), followed by pension and social relief (9.0%). The comparison of shares in 2001 and 2004 shows that none of the poverty reduction related items increased their shares. The growth rate of expenditure on social and economic service during the period was 50.9%.

Table 4 Poverty Reduction Expenditure in State Budget

	2001		2004		Rate of increase (%): 2001–2004	Cumulative (2001–2004)	
	Billion Dongs	%	Billion Dongs	%	%	Billion Dongs	%
Total	129773	100.0	214176	100.0	65.0	673340	100.0
1. Expenditure on Development Investment	40236	31.0	66115	30.9	64.3	211198	31.4
1.1Capital Expenditure	36139	27.8	61746	28.8	70.9	193055	28.7
2. Expenditure on Social and Economic Services	71562	55.1	107979	50.4	50.9	353188	52.5
2.1 Education	15432	11.9	25343	11.8	64.2	81500	12.1
2.2 Health Care	4211	3.2	6009	2.8	42.7	20248	3.0
2.3 Polulation and Family Planning	434	0.3	397	0.2	−8.5	2338	0.3
2.4 Science, Technology and Environment	1625	1.3	2362	1.1	45.4	7692	1.1
2.5 Culture and Information	921	0.7	1584	0.7	72.0	4829	0.7
2.6 Broadcating and Television	838	0.6	1325	0.6	58.1	3900	0.6
2.7 Sports	483	0.4	883	0.4	82.8	2600	0.4
2.8 Pension and Social Relief	13425	10.3	17282	8.1	28.7	60379	9.0
2.9 Economic Services	6288	4.8	10301	4.8	63.8	32740	4.9
2.10 General Public Services	8734	6.7	15901	7.4	82.1	187702	27.9
3. Addition to Financial Reserve Fund	849	0.7	78	0.0	−90.8	1573	0.2

Source: Budget data are from GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

The item which exceeded this average figure was only education (64.2%). The growth rate of health care was slightly lower at 42.7%. The growth of pension and social relief was very low at 28.7%. These observations imply that the actual installation of CPRGS in 2002 did not give drastic influence to the government budget and also that the emphasis of the government poverty reduction policy was mainly on education as long as budget is concerned.

Beside the recurrent expenditure items on social welfare and economic services, the expenditure

on development investment includes the state expenditure for poverty reduction. Table 5 indicates the amount of such expenditure during the period of CPRGS. The data were available only at 1994 prices and not comparable with the figures in Table 4 at current prices. The share of the cumulative investments for 2000–2005 shows that almost half of the total state investment went to infrastructure development (Electricity, Gas, Water Supply; Transport, Storage and Communications). A part of it should have been used for infrastructure development for poverty reduction, but it could not be a main part. The investments into agriculture and forestry sector contribute the poverty reduction since the poverty rate in rural area is higher. Its cumulative share was 10% and not quite low. However, its

Table 5 State Investments by Main Kinds of Economic Activity

	Value (Bil. Dongs, at 1994 constant prices)						
	2000	2001	2002	2003	2004	2005	2000–2005 Cumulative
Total State Investments	68089	77421	86677	95471	105082	115196	547936
Production Sectors							
Agriculture and Forestry	9277	8253	8504	9915	9323	11018	56290
Manufacturing	9204	20005	19559	18705	12990	15619	96081
Electricity, Gas, Water Supply	15766	15873	19639	20415	24722	28510	124925
Transport Storage and Communications	18724	21356	25800	26316	31357	38008	161561
Social Development							
Education and Traning	5710	5434	4332	5535	8128	8692	37831
Health and Social Work	2169	2341	2425	3130	5415	5522	21002
	Share in total state investment (%)						
Production Sectors							
Agriculture and Forestry	13.6	10.7	9.8	10.4	8.9	9.6	10.3
Manufacturing	13.5	25.8	22.6	19.6	12.4	13.6	17.5
Electricity, Gas, Water Supply	23.2	20.5	22.7	21.4	23.5	24.7	22.8
Transport Storage and Communications	27.5	27.6	29.8	27.6	29.8	33.0	29.5
Social Development							
Education and Traning	8.4	7.0	5.0	5.8	7.7	7.5	6.9
Health and Social Work	3.2	3.0	2.8	3.3	5.2	4.8	3.8

Source: GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

share during the period showed the declining trend. Investments for education and training occupied higher share among the investments for social development. Its share of the cumulative investments was 6.9%, and the share in each year declined overtime. The exception is the investments in the health and social work. Although the share was not high, it increased overtime. In summary, the government's focus on investments for poverty reduction had been weakened its importance with exception of increased investments in health and social work.

The impacts of such direct poverty reduction expenditure on regional poverty situation are unclear since the data on regional budget allocation were not available. However, we may safely regard that these policies were mainly directed to the rural poor of all the regions with more emphasis on the poor in remote and mountainous regions if we consider the components of poverty reduction policy explained at the beginning of this section. Some of the important channels of the poverty reduction in rural area which leads to employment and henceforth income generation are as follows.

1) Engagement in small business or agro-based production: Concessionary micro-credit from the Bank of Social Policies and business orientation played important roles. The credit covered 75% of poor household with average amount of 3.6 million dongs per household. Also, 103 models in agro-forestry processing and preservation and business development were built in 37 provinces (The Steering Committee of CRRGS 2005: 83–84).
2) Diversification of agricultural production and productivity increase: In addition to micro-credit, extension services in agriculture, forestry, and fishery and technical services for agri-business were the driving force. This contributed to productivity increase, introduction of high-yielding plants, and expansion of animal husbandry.
3) Improvement of infrastructure: Total project fund of 776 billion dong was invested as local government and/or commune budgets into irrigation, road, water, electricity, schools, commune markets, and so forth. In particular, irrigation had contributed to agricultural production. Road improvement and building commune markets had helped the commercialization of agriculture (The Steering Committee of CRRGS 2005: 85). Newly irrigated land area during 2001–2005 is 300,000 ha, which is about 4% of rice fields in 2005. Total length of new construction and rehabilitation of local road was 65,004 km during the same period (The Steering Committee of CRRGS 2005: 148–149).

With regard to remote, isolated and ethnically minority areas, the poverty reduction policies such as Program 135 contributed with more comprehensive menu. It includes the supply of agricultural lands to landless household. For example, 5139 ha were provided to 10455 household in Central Highlands (The Steering Committee of CRRGS 2005: 84).

4. Industrialization, FDI, and Agricultural Development by Region

If the poverty reduction in Vietnam has been driven by its growth strategy, not by its policy targeted to the poor, the picture of poverty reduction among regions will have similarity with the picture of progress in industrialization among regions. The output increase in industrial sector will increase employment in industrial sector. In urban area, rapid demand increase for labor and rise of the living standard will push up the wage level. Industrialization and urbanization will also support the growth of service sectors. These changes contribute to the income rise of the people through employment generation and wage increase. This is the main channel of trickle down. Therefore, in this section, we will first look at the regional pattern of industrial development and its impacts on regional unemployment, and then examine its similarity with the regional pattern of poverty reduction. In addition, we will study the impacts of Foreign Direct Investment (FDI) on industrial output since the enhancement of inward FDI has been one of the key growth strategies of Vietnam. At the same time, we should not forget that the agricultural development also contributes to the income generation. In order to see such impacts on poverty reduction, we will in addition examine the change in regional agricultural output. Moreover, the impacts of agricultural poverty reduction programs will be examined by looking at the change in the yield of paddy.

National average growth of the regional industrial output from 2000 to 2005 was 110% (Table 6).

Table 6 Industrial Output and Employment by Region

	Industrial output			Unemployment rate in urban area (%)*		
	(1994 prices, Bil. Dongs)		Growth rate(%)			
	2000	2005	2000–2005	2000	2005	2005–2000
National	198326	416562	110.0	6.42	5.31	1.1
Red River Delta	40359	94210	133.4	7.34	5.61	1.7
North East	10657	21245	99.4	6.49	5.12	1.4
North West	541	1295	139.4	6.02	4.91	1.1
North Central Coast	7158	15302	113.8	6.87	4.98	1.9
South Central Coast	9776	21959	124.6	6.31	5.52	0.8
Central Highlands	1916	3504	82.9	5.16	4.23	0.9
South East	99572	201724	102.6	6.16	5.62	0.5
Mekong Delta	18480	37400	102.4	6.15	4.87	1.3

Note: *Unemployment rate of labor force of working age in urban area.
Data source: GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

The growth in the most industrialized HCM and the surrounding area (South East) was slow at 102.6% in contrast to the high growth at 133.4% in Hanoi and the surrounding area (Red River Delta). This indicates that new domestic and foreign investments have been shifting to Hanoi area due to the relative congestion in industrialization in the HCM area and due to the infrastructure improvement in Hanoi area. The higher growth in the South Central Coast is the result of the government intention to locate heavy and chemical industries in this area. Although North West with high poverty rate had shown the highest growth, its size of production is very small. The impacts of industrialization on unemployment rate in urban area of each region were mixed. There was remarkable improvement in unemployment ratio in the Northern lowland regions such as Red River Delta and North East, and less improvement in the originally industrialized South East and highland area. The total new job creation during the 2003–2005 is reported as 4.7 million, which is about 11% of total number of employment in 2005. Since the employment of agriculture and forestry decreased during the same period, the trickle-down effect through job creation in manufacturing and services is quite large[12].

Not only the domestic investments but also FDI contributes to the growth of industrial output and employment generation. The impact of FDI on production has been of special importance for Vietnam because the industrial production by FDI sectors occupied slightly more than one third of total industrial production in 2000 and 2005 (Compare Table 6 and 7). However, the impacts of FDI on employment were limited only to two industrialized regions. The cumulative FDI for the periods of both 1988–2002 and 2003–2006 are concentrated on South East (HCM and its vicinity) and Red River Delta (Hanoi and its vicinity). Employment generation by foreign investment sector during 2003–2005 was 0.23 million, approximately 8% of total employment increase[13]. The direct impact of the government FDI policy on nation-wide poverty reduction had been small.

Demand for agricultural products increases by income effect of economic growth, by improvement of market access, and by the price effect caused by efficient production and lower input prices. The government has taken various poverty reduction policies in rural area as explained in detail in Section 3. They are micro-credit, agricultural extension, land irrigation, improvement of access to markets and so forth. Agricultural extension service improved the technical efficiency in agriculture. Infrastructure development including road construction contributed to connect the production sites and the large urban markets (even export markets in case of primary commodities). Industrialization and trade liberalization will lower the prices of inputs such as fertilizer and pesticides. So, the increase of agricultural production will be considered as a mixed result of standard development policies and poverty reduction policies.

Table 8 clearly shows that agricultural production had rapidly increased in poorer and highland regions during the period from 2000 to 2005. The growth rates in North West and Central Highlands were 47.5% and 41.0% respectively. These are two prominent poor regions. Possible reasons of this change are the increase of coffee production for exports, general demand increase, and influence of

Table 7 FDI and Industrial Output

	Industrial output by FDI Sector				
	(1994 prices, Bil. Dongs)		Share (%)		Growth rate(%)
	2000	2005	2000	2005	2000–2005
National	71285	155319	100.0	100.0	117.9
Red River Delta	14997	35756	21.0	23.0	138.4
North East	1763	2790	2.5	1.8	58.3
North West	25	81	0.0	0.1	224.0
North Central Coast	1391	3803	2.0	2.4	173.4
South Central Coast	1245	3320	1.7	2.1	166.7
Central Highlands	173	354	0.2	0.2	104.6
South East	49698	104864	69.7	67.5	111.0
Mekong Delta	1989	4346	2.8	2.8	118.5
	Cumulative FDI at licenced base				
	1988–2002		2003–2006		
	(Mil. US$)	Share(%)	(Mil. US$)	Share(%)	
National	40225	100.0	35019	100.0	
Red River Delta	11049	27.5	9192	26.2	
North East	1696	4.2	749	2.1	
North West	65	0.2	50	0.1	
North Central Coast	891	2.2	581	1.7	
South Central Coast	2974	7.4	2301	6.6	
Central Highlands	939	2.3	102	0.3	
South East	21538	53.5	20799	59.4	
Mekong Delta	1071	2.7	1244	3.6	

Data source: GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

agricultural extension services. The growth rates of agricultural output in rice producing Mekong Delta and Red River Delta were low at 17.6% and 15.5% respectively because the yield of paddy per hectare was already high in 2000. In other regions of less efficient production, the growth rates of the yield of paddy per hectare were higher. In the poor North West, it was 20.3% in contrast to the national average of 15.3%. The impact of the agricultural-forestry extension service as a part of poverty reduction policy is obvious. So, we may conclude that increase of agricultural production was brought by increase of cultivated area, productivity rise, and product diversification.

Table 8 Agricultural Output and Yield of Paddy by Region

	Agricultural output				
	(1994 prices, Bil. Dongs)		Share (%)		Growth rate(%)
	2000	2005	2000	2005	2000–2005
National	112111	137112	100.0	100.0	22.3
Red River Delta	20898	24140	18.6	17.6	15.5
North East	8594	11147	7.7	8.1	29.7
North West	2083	3072	1.9	2.2	47.5
North Central Coast	9767	11718	8.7	8.5	20.0
South Central Coast	6153	7071	5.5	5.2	14.9
Central Highlands	11448	16139	10.2	11.8	41.0
South East	12541	16053	11.2	11.7	28.0
Mekong Delta	40625	47769	36.2	34.8	17.6
	Yield of Paddy (100kg/ha)			Proportion of working time in rural area (%)*	
	2000	2005	Growth rate(%)	2000	2005
National	42.4	48.9	15.3	74.2	80.7
Red River Delta	55.2	54.3	−1.6	75.5	78.8
North East	40.0	45.7	14.3	73.0	80.3
North West	29.5	35.5	20.3	73.4	78.4
North Central Coast	40.6	47.0	15.8	72.1	76.5
South Central Coast	39.8	47.3	18.8	73.9	77.8
Central Highlands	33.6	37.3	11.0	77.0	81.6
South East	31.9	38.9	21.9	76.6	82.9
Mekong Delta	42.3	50.4	19.1	73.2	80.0

Note: *Proportion of working time used by workers of working age in rural area.
Data source: GSO, *Statistical Yearbook of Vienam*, 2002 and 2006.

As a result, Table 8 shows that the proportions of working time in rural area had increased in all regions. Such decrease of underemployment in rural area have contributed to income generation.

Change in terms of trade between agricultural products and manufacturing products will also give impacts to real income of people in rural area. Agricultural price index had increased from 100 in 2000 to 119.2 in 2005, while price index of processed products (manufacturing products) had increased from 100 in 2000 to 127.9 in 2005. The deterioration of terms of trade for farmers was not so big as to give

much impact on relative income. The Government also did not make price intervention.

5. Summary Assessment and Conclusion

In order to distinguish the effect of the implementation of PRSP from the trickle-down effect for the case of Vietnam, we have to carefully define the contents of PRSP in Vietnam since CPRGS includes both general development policy and policies more or less directly targeted to poverty reduction. Here, by PRSP, we refer the latter. They are policies for social development (education, healthcare, and social safety net), agricultural and forestry development policy, micro-credit, policies targeted to the minorities and the poor regions, infrastructure development in poor regions, and the like.

As we have already seen, CPRGS was introduced later as an action program of the Ten Year Socio-Development Strategy and the Five Year Socio-Development Plan. The process itself has some grounds to make us doubt taht the installation of the PRSP scheme in the form of CPRGS did not much add to the original development policy of Vietnam. However, it is also true the discussions in the drafting process of PRSP should have given some impacts on the implementation of the Five Year plan. It also should have contributed to clearly identify the targets for poverty reduction in detail. The monitoring system designed in CPRGS surely helped ensure the implementation of the poverty reduction policies. Therefore, we will not argue that the PRSP system did not gave any impact to the whole development policy framework of Vietnam. Instead, we will assess the impacts of poverty reduction policies listed in CPRGS irrespective of the policies being incorporated originally in the ten year strategy or the five year plan.

Table 9 is a summary of tables given in the previous sections. Together with the discussions in the previous sections, the assessment of the PRSP will be summarized as follows.

1) During the CPRGS period, although there was sizable poverty reduction in all regions, the poverty rates lowered more quickly in the higher income regions in the lowland area. In other words, introduction of PRSP scheme could not mitigate the income inequality among regions.
2) Although the poverty rates were higher in the remote and highland regions, the poor population of larger number lived in the lowland rural regions. The quicker poverty reduction in the lowland rural regions can be regarded as a mixed effect of trickle down and agricultural development policy.
3) Among the poor regions, poverty was reduced more quickly in urban area rather than in rural area. This is the impact of the nationwide economic growth led by industrialization and urbanization.
4) There was not clear evidence of poverty-reduction-focus in the state budget allocation. The educational expenditure maintained its share in budget, but the shares of other expenditures

Table 9 Poverty Incidents, Economic Growth, and Employment

	Decrease of population below poverty line (%)	Growth rate of industrial output (%)	Growth rate of industrial output by FDI (%)	Growth rate of agricultural output (%)	Growth of yield of Paddy (%)	Decrease of urban unemployment rate (%points)	Incraese of proportion of rural working time (% points)
	2002 → 2004	2000 → 2005	2000 → 2005	2000 → 2005	2000 → 2005	2000 → 2005	2000 → 2005
National	−20.5	110.0	117.9	22.3	15.3	1.1	6.5
Red River Delta	−21.9	133.4	138.4	15.5	−1.6	1.7	3.2
North East	−37.3	99.4	58.3	29.7	14.3	1.4	7.3
North West	−0.5	139.4	224.0	47.5	20.3	1.1	5.0
North Central Coast	−6.9	113.8	173.4	20.0	15.8	1.9	4.3
South Central Coast	−24.9	124.6	166.7	14.9	18.8	0.8	3.9
Central Highlands	4.8	82.9	104.6	41.0	11.0	0.9	4.6
South East	−8.9	102.6	111.0	28.0	21.9	0.5	6.3
Mekong Delta	−35.2	102.4	118.5	17.6	19.1	1.3	6.8

Source: Tables 2, 6, 7, and 8.

for poverty reduction had decreased. However, it is also true that major expenditure of poverty reduction policies for income rise were allocated to poor regions.

5) The attainment of poverty reduction among regions shows the similar pattern with the progress of industrial development. Also, FDI centered on HCM and Hanoi, and did not contribute to the poverty reduction in poor regions. The trickle down effect of industrialization through employment generation in urban area was much larger than the employment or income generation effects by poverty reduction policies.

6) The growth of agricultural production was higher in poor regions, and the agricultural productivity improvement was significant in most of the poor regions. This is the mixed effects of agricultural extension service, irrigation projects, and demand increase caused by economic growth.

7) Employment generation was also an important vehicle of income rise in all regions. Both unemployment rate in urban area and underemployment in rural area showed obvious decrease.

All in all, we will conclude that the poverty reduction in Vietnam during the period of CPRGS was mainly a contribution of trickle down effect of overall economic growth. The role of the installation of PRSP scheme was supplementary, although it slowed down the widening income gap between the

regions.

The present paper made basically semi-macro-type analysis, analyzing the regional difference in poverty incidents. For more comprehensive analysis, it should be supplemented by micro-type study which analyses the poverty reduction in each income cohort in each region. Such further study requires the full-scale analysis of VHLSS (Vietnam Household Living Standard Survey) 2004 in comparison with VLSS 2002.

Notes

1 This excludes the general policies for economic development in CPRGS.
2 Household survey is available for the three years.
3 See Sakata (2003).
4 See JICA Institute for International Cooperation (2004), pp 64–72.
5 See the Steering Committee of CPRGS (2005), Part II.
6 See The Socialist Republic of Vietnam (2003), pp. 2–3.
7 See The Socialist Republic of Vietnam (2003), p 2.
8 See Osada (2007) pp. 30–32 for a brief review of such literature.
9 This is the area where the ethnic minorities resides.
10 The Socialist Republic of Vietnam (2003), p. 129.
11 The Steering Committee of CPRGS(2005: 82–96) classified the policies into direct and indirect ones. Then, direct policy was further classified into general one and the one for communes.
12 The figure of 4.7 million is from the Steering Committee of CPRGS (2005: 21). However this seems to be overestimate. The employment increase during 2003–2005 is about 3 million according to GSO's Statistical Yearbook, various years. The employment in agriculture and forestry decreased 0.3 million during the same period.
13 Data are from NSO, Statistical Yearbook, various years.

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