

Do the Poorest Ethnic Minorities Benefit from a Large- Scale Poverty Reduction Program? Evidence from Vietnam

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Outline

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Introduction

- Vietnam is one of the most successful countries in term of poverty reduction and economic achievement
- However, poverty reduction has slowed down, poor households gained less from economic growth
- To increase the opportunities for the poor, government has introduced many targeted programs, especially P135
- Number of studies report impact evaluation of poverty reduction programs in Vietnam but quantitative evidence on large- scale programs is limited

Introduction

- In this study, we measure the effects of P135- II on economic outcomes of households
- Our study contributes a case study to the literature on impact evaluation of large complex programs
- Findings from the study are useful to the government and donors involved in designing the third phase of P135.

Major objectives of P135- II

- By 2010:
 - Poverty rate is less than 30%
 - More than 70% of households have annual income per capita higher than 3.5 million VND.
 - Agricultural productivity improves through application of new technology in production
 - Net primary enrollment rate $\geq 95\%$
 - Net lower secondary enrollment rate $\geq 75\%$.

P135- II: Major components

- Support agricultural production through improving skills and training the ethnic minorities on new production practices;
- Support to develop local infrastructure and to increase the households' access to the basic infrastructure;
- Improvement of the socio-cultural life and access to public services;
- Strengthening the administrative and professional capacity of local officials about investment and operations management.
- Program is implemented in 1600 poorest communes from 2006 to 2010 with total budget is about US\$1.1 billion

Data Sets

- This study used the 2007 Baseline Survey and the 2012 End-line Survey of P135-II
- Sample size: 400 communes; 6000 households in 43 provinces
- Select 266 treatment communes from 1,632 eligible communes.
- Select 134 comparison communes as follows:
- Estimated a probit model to predict probability of selection for treatment;
- Among non-treatment communes identify those with higher-than-average probability of selection;
- Randomly choose 134 of them.

Data Sets

- Two questionnaires were used in these surveys: one for the household and one for the commune
- Questions about P135-II were also included in a special module
- Tablet PCs were used for interview during the End-line Survey 2012
- We were able to construct panel data on 5,668 households. The attrition rate is about 5.2% after 5 years.

Survey Locations



Income

Groups	% Share in Pop	Per capita income (thousand VND)		
		2007	2012	% Change
All households	100	6,039	7,295	21
<i>Ethnicity</i>				
Kinh	14.2	9,274	11,378	23
Ethnic minorities	85.8	5,210	6,294	21

Income structure

Household Income	Household income (thousand VND/year)			Income share (%)		
	2007	2012	Change	2007	2012	Change
Total	29,443	34,096	4,653	100	100	0.00
Wage income	6,403	10,000	3,597	20	24	4
Agriculture	16,688	17,464	776	64	57	-6
Non-farm, non- wage	2,707	2,521	-186	5	5	0
Others	3,645	4,110	465	12	14	2

Poverty



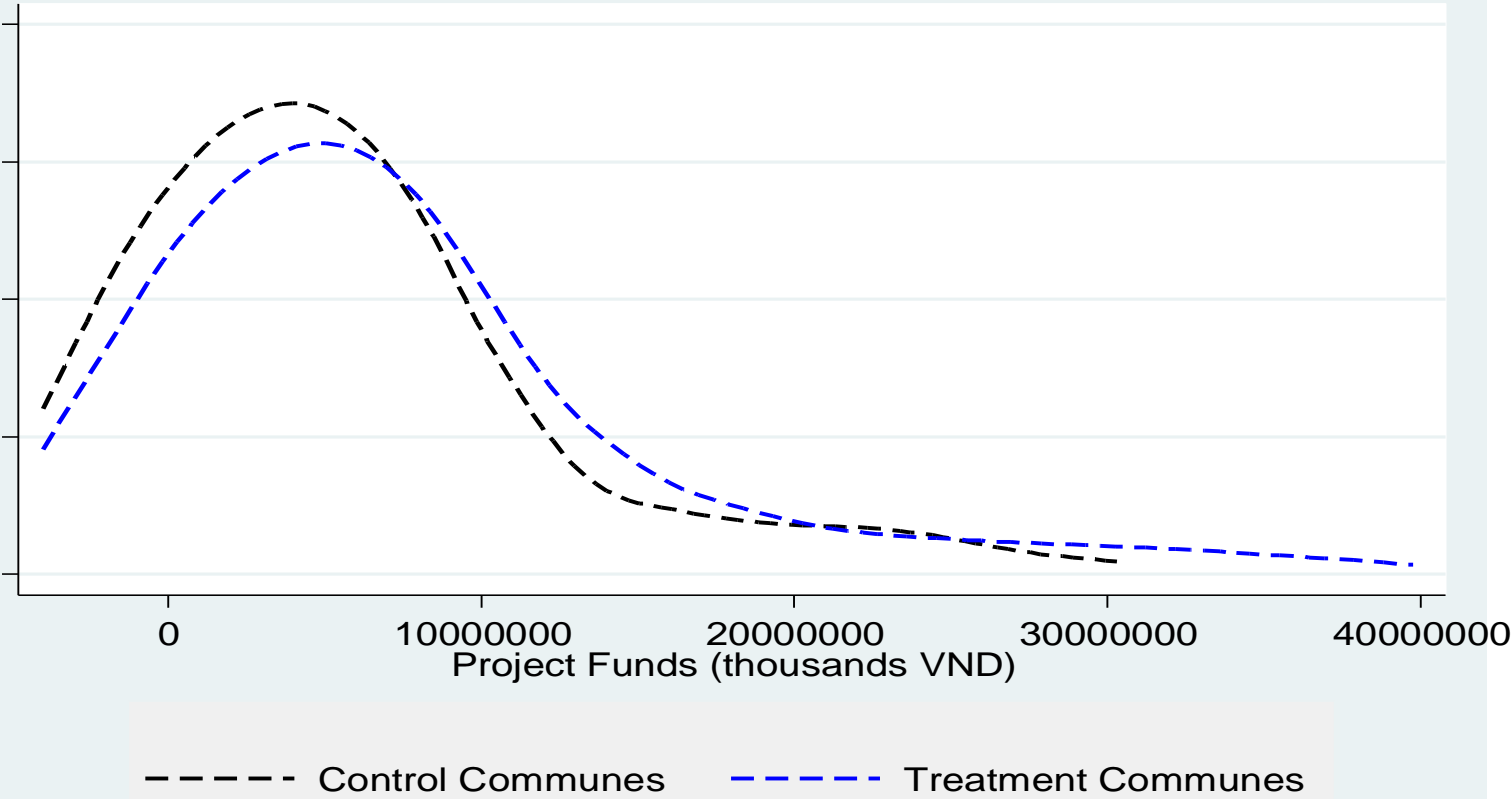
Poverty gap and severity indexes

Groups	Poverty gap index (%)			Poverty severity index (%)		
	2007	2012	Change	2007	2012	Change
All households	23.5	22.4	-1.1	12.5	13.4	0.9
<i>Ethnicity</i>						
Kinh	11.7	13.3	1.5	6.0	8.0	2.1
Ethnic minorities	26.5	24.6	-1.9	14.2	14.7	0.5

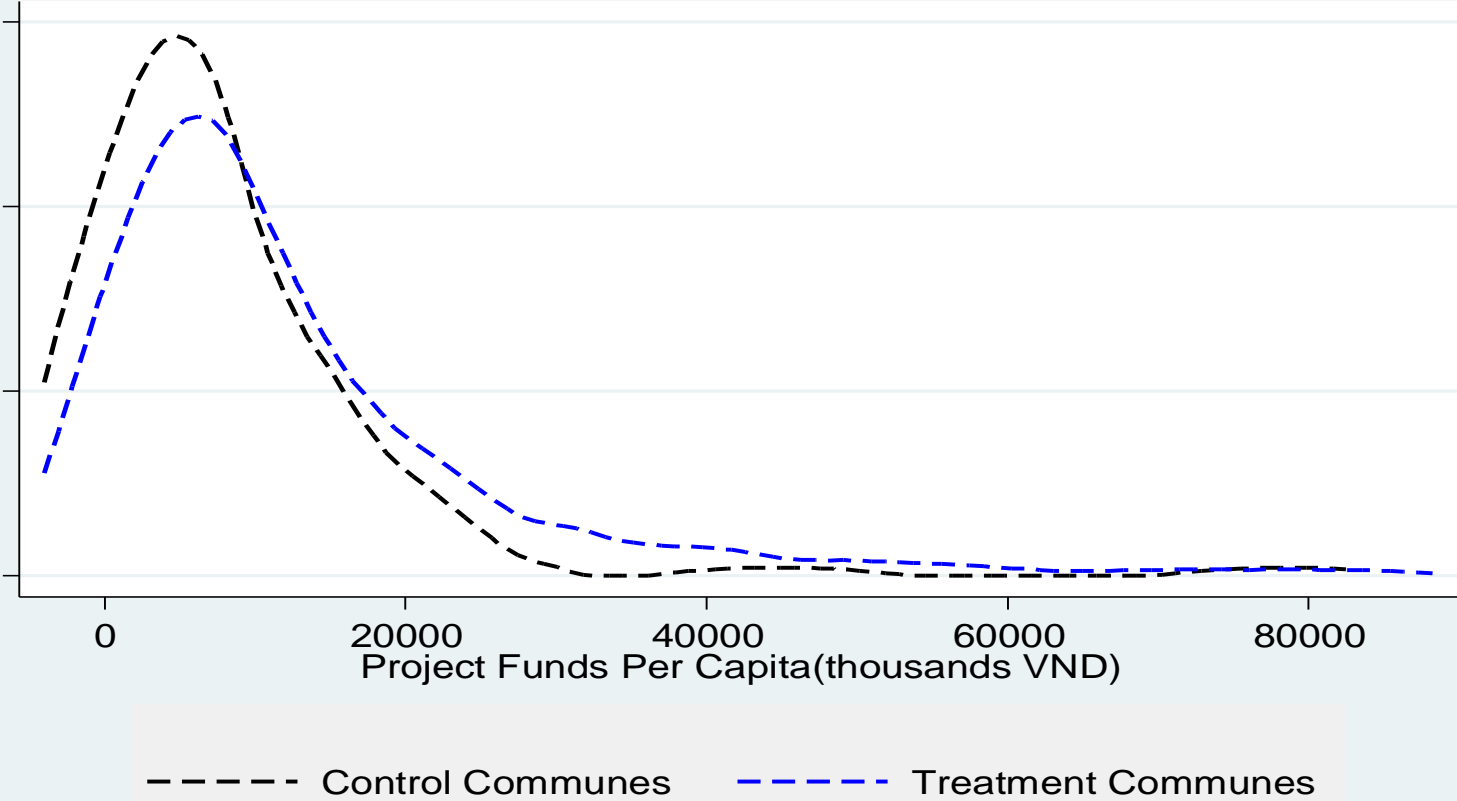
Trajectories of Control and Treatment

Status in Each Year							n	Code	T1	T2	TP
2006	2007	2008	2009	2010	2011	2012					
C	C	C	C	C	C	C	98	1	0	0	0
C	T	T	T	T	T	T	1	2	0	1	...
C	C	T	T	T	T	T	30	3	0	1	...
C	C	C	T	T	T	T	1	4	0	1	...
T	T	T	T	T	T	T	247	5	1	1	1
T	T	C	C	C	C	C	17	6	1	0	...
T	T	T	T	C	C	C	2	7	1	0	...
T	T	T	T	T	C	C	2	8	1	0	...

Budget allocation



Budget allocation



Methodology to measure impacts

We use household fixed effect model to measure the impacts of P135- II on the outcomes

$$Y_{cit} = \beta_0 + a_1 T_{ct} + a_2 (T_{ct} \times S_{ci}) + \beta X_{cit} + \gamma Z_{ct} + \mu_c + \mu_{ci} + \tau Year_t + \varepsilon_{cit}$$

Results

Response Variable	Minorities			Non-Minorities		
	DID FE/X	t- ratio	p- value	DID FE/X	t- ratio	p- value
Asset Index	0.38	2.33	0.0099	0.15	0.88	0.1894
Durables Index	1.18	7.42	0.0000	1.02	2.04	0.0207
House Quality Index	0.01	1.00	0.1587	0.02	1.05	0.1469
Rice Productivity (kg/sqm)	0.03	2.00	0.0228	0.002	0.07	0.4721
Rice Productivity (000 VND/sqm)	0.04	0.41	0.3409	-0.11	-0.48	0.3156
Corn Productivity (kg/sqm)	0.01	1.10	0.1357	0.03	1.44	0.0749
Corn Productivity (000						

Results

Response Variable	Minorities			Non-Minorities		
	DID FE/X	t-ratio	p-value	DID FE/X	t-ratio	p-value
Cassava Productivity (kg/sqm)	-0.13	-1.01	0.1562	0.54	2.35	0.0094
Cassava Productivity (000 VND/sqm)	-0.16	-0.86	0.1949	0.45	1.69	0.0455
Industrial Crop Productivity (kg/sqm)	-0.01	0.10	0.4602	0.43	1.02	0.1539
Industrial Crop Prod (000 VND/sqm)	0.03	0.02	0.4920	12.54	2.41	0.0080
Share of Land in Industrial Crops	-0.04	-1.32	0.0934	-0.11	-1.91	0.0281
Income from Wages & Salaries	634	0.19	0.4247	2,985	1.10	0.1357
Income from Agriculture	3,230	3.27	0.0005	-3,285	-1.54	0.0618

Results

Response Variable	Minorities			Non-Minorities		
	DID FE/X	t-ratio	p-value	DID FE/X	t-ratio	p-value
Income from Businesses	2,104	0.52	0.3015	-22,536	-2.90	0.0019
Household Total Income	3,479	2.14	0.0162	-1,644	-0.41	0.3409
Household Per-Capita Income	1,118	2.51	0.0060	121	0.11	0.4562
Poverty	-0.10	-2.72	0.0033	-0.01	-0.17	0.4325
Enrollment: Primary	0.04	0.97	0.1660	0.04	0.50	0.3085
Enrollment: Lower Secondary	0.02	0.50	0.3085	0.10	0.96	0.1685
Enrollment: Upper Secondary	0.03	0.63	0.2643	-0.03	-0.32	0.3745
Travel Time to Health Facilities	-5.82	-1.69	0.0455	9.67	1.41	0.0793

Conclusions

- P135-II is the first large government program in Vietnam to adopt a systematic and well-designed impact evaluation procedure.
- Some communes in the treatment group graduated from the program and some communes from the control group were brought into the treatment group.
- Budget allocations of P135-II communes and comparison communes were not statistically different

Conclusions

- The estimated impacts on key response variables for minority households are positive.
- Results for non-minority households appear mixed, but impacts on the most important measures are neither large nor statistically significant
- Enrollments in treatment communes increased more than in comparison communes, but the impacts were not statistically significant.

Thank you for your attention