Impact Assessment of Transport Infrastructure Projects in Northern Vietnam

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Study Objective

- Assessment of economic and social impacts of two JBIC assisted projects: Highway No.5 and Hai Phong Port
- Examination of the role of large scale economic infrastructure in achieving economic growth and poverty reduction
- Contribution to the recent effort to extend the scope of the CPRGS
The Projects

(1) National Highway No.5 Improvement Project
1994-2000: all phases completed
(Jan. 1999: practically in use)
JPY 20.961 billion (US$175 million), Phase 1 - 3

(2) Hai Phong Port Rehabilitation Project
1994-2000: Phase 1 completed
JPY 3.975 billion (US$ 33 million), Phase 1

Location of the JBIC transport projects

Bridge construction projects are not included in this map.
Study Area

Red River Delta

Process for the Impact

Improvement of Highway No.5 Hai Phong Port

Promotion of FDI

Development of rural economy

Economic Growth

Poverty Reduction
Framework of the presentation

1. Economic Growth and Poverty Reduction in the Red River Delta
2. Impact from FDI
3. Impact from Rural Development

1. Economic Growth and Poverty Reduction in the Red River Delta
- Connected vs. unconnected -
Trend in Economic Growth

(1) Growth rate of per capita GRP, annual average 1995-2000

Red River Delta

(2) Per capita GRP in 1995

Trend in Economic Growth
(3) Per capita GRP in 2000

Comparison of Hung Yen and Thai Nguyen

(1) Location of the two provinces
(2) Per capita GRP of the two provinces (constant 1994 prices)

![Graph showing trend in economic growth for Hung Yen and Thai Nguyen.]

(3) Sector composition of GRP in the two provinces

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Industry</th>
<th>Service</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>53%</td>
<td>15%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>1996</td>
<td>56%</td>
<td>15%</td>
<td>29%</td>
<td>100%</td>
</tr>
<tr>
<td>1997</td>
<td>46%</td>
<td>22%</td>
<td>32%</td>
<td>100%</td>
</tr>
<tr>
<td>1998</td>
<td>45%</td>
<td>24%</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>1999</td>
<td>43%</td>
<td>29%</td>
<td>29%</td>
<td>100%</td>
</tr>
<tr>
<td>2000</td>
<td>43%</td>
<td>27%</td>
<td>30%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(4) Invested Capital of FDI to the two provinces, 1993-2002

Trend in Economic Growth

Trend in Poverty Reduction

(1) Reduction in the number of poor HH, 1998-2000
(2) Impact on poverty reduction in Hung Yen

Share of poor HH in 2002

Highway No.5

Hung Yen Town

Trend in Poverty Reduction

(3) Impact on poverty reduction in Hai Duong

Average HH income in 2002

Highway No.18

Highway No.183

Highway No.5

Trend in Poverty Reduction
2 Impact from FDI

Impact from FDI
Where foreigners invested after the transport projects?

Total amount of foreign invested capital, 1999-2002

Frequent use of well-developed transport infrastructure

<table>
<thead>
<tr>
<th>Business Type</th>
<th>Site</th>
<th>Export Market</th>
<th>Import Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA products</td>
<td>Ha Noi</td>
<td>Hai Phong</td>
<td>Hai Phong</td>
</tr>
<tr>
<td>sanitary ware</td>
<td>Ha Noi</td>
<td>Local</td>
<td>Hai Phong</td>
</tr>
<tr>
<td>glass ware</td>
<td>Ha Noi</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>Internet software</td>
<td>Ha Noi</td>
<td></td>
<td>Noi Bai</td>
</tr>
<tr>
<td>electronic parts</td>
<td>Ha Noi</td>
<td>Noi Bai</td>
<td>Hai Phong</td>
</tr>
<tr>
<td>clothes, bags</td>
<td>Hai Phong</td>
<td>Local</td>
<td>Hai Phong</td>
</tr>
<tr>
<td>glass container</td>
<td>Hai Phong</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>heavy metal structure</td>
<td>Hai Phong</td>
<td>Local</td>
<td>Hai Phong</td>
</tr>
<tr>
<td>jewelery</td>
<td>Hai Phong</td>
<td>Noi Bai</td>
<td></td>
</tr>
<tr>
<td>motorbike</td>
<td>Vinh Phuc</td>
<td>Local</td>
<td>Hai Phong</td>
</tr>
</tbody>
</table>

Note: X shows frequency of use.
Source: Interview survey by the study team.
Quantitative assessment of the growth impact

Assumption
(1) GDP is estimated with the Cobb-Douglas production function
(2) 90% of FDI would not be realized in the region without the projects

Contribution of FDI on GDP growth in 2001
+1.9%

Contribution of FDI on GRP growth in the Red River Delta in 2001
+9.6%

Share of FDI sector in the four provinces
(1) Gross Regional Products
(2) Industrial Gross Output

Creation of Employment by FDI

Amount of employment at major industrial zones

<table>
<thead>
<tr>
<th>Location</th>
<th>Current</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thang Long</td>
<td>3,766</td>
<td>3,200</td>
</tr>
<tr>
<td>Sai Dong B</td>
<td>5,867</td>
<td>-</td>
</tr>
<tr>
<td>Noi Bai</td>
<td>1,269</td>
<td>-</td>
</tr>
<tr>
<td>Nomura Hai Phong</td>
<td>3,017</td>
<td>2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13,919</strong></td>
<td></td>
</tr>
</tbody>
</table>

Amount of employment at provincial industrial zones

<table>
<thead>
<tr>
<th>Location</th>
<th>Current</th>
<th>(FDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hung Yen IZs</td>
<td>5,800</td>
<td>7,000</td>
</tr>
</tbody>
</table>
Share of FDI sector in the four provinces
(3) Industrial labor force

Linkage with local industry

Mostly service business
- e.g. Transport, Real estate, catering, commerce

Linkage with local manufacturing industry
- very limited,
- parts or components are hardly procured from local producers.

Types of FDI with significant linkage with local industry
a) Natural resource based FDI
   - e.g. cement, sanitary ware
b) Food processing FDI
   - e.g. snack noodle, confectionary
Satellite investment of FDIs
“Canon effect”

- Plastic products (Thang Long)
- Plastic products (Nomura HP)
- Surface treatment (Thang Long)
- Wiring system (Saidon B)
- Logistics (Thang Long)
- Plastic molds (Nomura HP)
- Plastic molds (Noi Bai)
- Users’ manual (Thang Long)
- Power code (Thang Long)

Impact from FDI

Fiscal contribution by FDI

- FDI increase
  - More tax payment
    - Income tax
    - Custom duty
  - Increase in state revenue (provincial, central)
- More pro poor investment at nation wide
  - Efficient and capable public administration in the field
  - Strong political commitment to reduce poverty

Impact from FDI
Structure of the total state revenue of the four provinces in 2000

Impact from FDI

Concurring interventions

Promotion of FDI

Expansion of vocational training

Development of Industrial Zones

Administrative incentives

Economic Growth

Poverty Reduction

Impact from FDI
Impact from Rural Development

- Development of rural economy
- New economic activities
- Diversification of Household income
- Better access to social services

Economic Growth
Poverty Reduction
Main source of information:

**Rural households survey**
- Randomly selected 200 households (HH)
- Six communes in Hung Yen and Hai Duong Provinces
- Questionnaire survey in March 2003

Property ownership for the surveyed households

Motorbike: 52%
TV: 86%
Bicycle: 91%

Year of purchasing durable goods for the surveyed households

Impact from Rural Development
New Economic Activities
Change in land use pattern of the surveyed HHs; 1997-2002

Diversification of income sources
Structure of income for the averaged HHs*; surveyed data 1997-2002

* Data of 206 HHs. More than one answers.
Better Access to Social Service

Changes in frequency to visit the cities for the surveyed HHs*

Main purpose to visit cities for the surveyed HHs*

*: Data of 200 HHs of the survey

Impact from Rural Development

Concurring interventions

Development of rural economy

Expansion of Agricultural Extension service

Doi Moi in Agriculture policy

Expansion of agricultural credit service

Diversified marketing channels

Impact from Rural Development

Economic Growth

Poverty Reduction
Sources of information about new business

* Data of 73 HHs, which started new business. More than one answer.

Impact from Rural Development

Expansion of agricultural credit service

Sources of initial capital to start new business for the surveyed HHs*

* Data of 77 HHs, which started new business

Impact from Rural Development
Expansion of marketing channels

Changes in distribution channels for the surveyed HHs*

* Data of 195 HHs replied to the questionnaire, More than one answers

Concluding remarks

(1) Impact of Highway No.5 and Hai Phong Port

Ha Noi - Hai Phong Transport Corridor

- Strategic part of the road network in the Red River Delta
- New axis of economic growth
- Significant reduction of poverty in the region
Concluding remarks

(2) Impact from FDI

Significant growth impact
9.6% increase of the GRP in 2001
Over 1/3 of gross industrial output in the region

Significant but still limited impact on poverty reduction
Increasing but small employment impact
Weak linkage with local economy
Small fiscal contribution
Larger and wider impact is expected within a foreseeable future

Frequent use of Highway No.5 and Hai Phong Port
Distribution, export, import, business meeting, etc.

Highway No.5 and Hai Phong Port were preconditions.

Concluding remarks

(3) Impact from Rural Development

Significant structural transformation
Diversified income sources
Rapid expansion of new business
Local economy itself is the driving force.

Well prepared rural households
Doi Moi restructuring policy
Extension service, Credit service, etc.

Highway No.5 and Hai Phong Port were triggers.
END of the presentation