Implication of Vietnam’s Environmental Protection Tax Law in the green economy transition process

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Outline

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Transition to a green economy

Overview of Environmental Protection Tax Law in Vietnam

Studies review: Practical implication of Environmental Protection Tax Law in Vietnam

Toward a green economy
Introduction

Transition to a green economy

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Toward a green economy
Vietnam’s economy model

- Achievements of Doi Moi (Renovation) from 1986: continuous economic growth, vast poverty reduction, welfare improvements, etc.
- GDP growth rate: 7.3% of last decade (GIZ, 2011)
- Second fastest growing economy in Asia – middle income country (from 2008)
- On track achieving most MDGs
Vietnam’s economy model

- Macro-economic uncertainties: high inflation rate, trade deficit, sovereign debt
- Budget deficit: ~ 7% of GDP
- Heavily pressure into the environment
- Carbon intensive & energy inefficiency ➔ rising import dependency in energy sector (UNDP, 2012)
- Global challenges: climate change, financial crisis
Vietnam’s energy trends 1971 - 2007

(source: UNDP 2012)
Introduction

Transition to a green economy

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Toward a green economy
Transition to a green economy

• **Green Economy:**
  - *Grow sustainably and for long term*
  - *Use natural resource efficiently*
  - *Be more resilient*
  - *Exploit the competitiveness*

• **How to measure the transition progress to a green economy:** traditional GDP, impacts on employment, resource intensity, emission and ecological impact.
Transition to a green economy (cont.)

- **Benefit of green economy**
  - Recognizing the value and invest in natural capital
  - Contributing to poverty reduction
  - Creating jobs and enhancing social equity
  - Substituting renewable energy & promoting low carbon technologies, energy efficiency
  - Grow faster & more sustainably than traditional economy growth
Enabling conditions of green economy

- Sound policy framework
- Prioritize Government investments
- Tax policy & market-based instruments
- Enhance capacity building, training & education
- Strengthen international government
Introduction

Transition to a green economy

Over view of Environmental Protection Tax Law in Vietnam

Studies review: Practical implication of Environmental Protection Tax law in Vietnam

Toward a green economy
Vietnam’s greening policies

- Newly issued policies reduce resource intensity and environmental effect
  - Legal framework on environmental protection
  - Sustainable development – Agenda 21 Vietnam
  - Climate Change policy: NTPRCC, NCCS, Resolution 24, SPRCC
  - Vietnam Green Growth Strategy
Vietnam’s greening policies (cont.)

• **Vietnam National Green Growth Strategy** (VGGS) issued in 2012

**Objectives:**

+ Restructure the economy and increase competitiveness through efficient use of resources and address environmental degradation
+ Assess and promote the use of high technology development to increase efficiency in natural resource use, reduce GHG intensity of the economy and respond to climate change
+ Improve the quality through green employment, sustainable lifestyles, green infrastructure/building and restored natural capital

**Implementation:** Inter-ministerial Coordinating Board with Deputy Prime Mister as the Chairman and a supporting office at MPI
Vietnam Green Growth Strategy road-map

Phases: Learning → main-streaming → Green Growth → towards a GE → “green Viet Nam”
2012--------2015--------2020--------2025--------2030--→ 2050

- Learning On GG, identify win-wins
- Establish national REDD Program
- Develop MRV
- CDM
  - Climate finance master plan
- Public awareness campaigns
- Mainstream GG in (SEDP 2015-2020)
- Initiate innovation in Green Supply Chains
- Green public Procurement
- Develop Human resources and technology for GG

GGS tasks:
1. Low carbon growth
2. Greening of production
3. Green lifestyles
4. Development and reservation of natural capital

Viet Nam high Green GDP and low GHG/unit GDP
Vietnam’s Environment Protection Tax (EPT) development timeframe

1980 - Environmental protection is considered as a constitutional objective

12/1993 – the first general Law on Environmental Protection

2006 – 2009: designing & developing environmental tax reforms

2007: Environmental Protection Tax Law included in the official 7th Legislative program in National Assembly (2007 – 2011)

2010: the Law on Environmental Protection Tax adopted by the National Assembly (came into effect in 2012)
Design of Vietnam’s EPT in Vietnam

- **Main objective:** establish disincentives for the creation of polluting materials by imposing a tax on “coal and oil-based fuels but also on plastic bags, HCFC, pesticides and other chemical products”
- **Tax objects:**
  - Refined fuel (gasoline, diesel, mazut, paraffin, kerosene) except ethanol
  - Coal
  - Hydrochlorofluorocarbon (HCFC) substances
  - Soft plastic bags
  - Subset of harmful chemical substances used in agriculture & forestry
### EPT rate in Vietnam from 2012

<table>
<thead>
<tr>
<th>Taxable object</th>
<th>Unit</th>
<th>Tax rate range (VND/unit)</th>
<th>Tax rate 2012/13 (VND/unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gasoline, oil, grease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1. Gasoline (except ethanol)</td>
<td>litre</td>
<td>1,000-4,000</td>
<td>1,000</td>
</tr>
<tr>
<td>1.2. Jet fuel</td>
<td>litre</td>
<td>1,000-3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>1.3. Diesel</td>
<td>litre</td>
<td>500-2,000</td>
<td>500</td>
</tr>
<tr>
<td>1.4. Paraffin</td>
<td>litre</td>
<td>300-2,000</td>
<td>300</td>
</tr>
<tr>
<td>1.5. Mazut</td>
<td>litre</td>
<td>300-2,000</td>
<td>300</td>
</tr>
<tr>
<td>1.6. Lubricating oil</td>
<td>litre</td>
<td>300-2,000</td>
<td>300</td>
</tr>
<tr>
<td>1.7. Grease</td>
<td>kg</td>
<td>300-2,000</td>
<td>300</td>
</tr>
<tr>
<td>2. Coal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1. Lignite</td>
<td>ton</td>
<td>10,000-30,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2.2. Anthracite coal</td>
<td>ton</td>
<td>20,000-50,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2.3. Fat coal</td>
<td>ton</td>
<td>10,000-30,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2.4. Other types of coal</td>
<td>ton</td>
<td>10,000-30,000</td>
<td>10,000</td>
</tr>
<tr>
<td>3. Hydrochlorofluorocarbons (HCFC)</td>
<td>kg</td>
<td>1,000-5,000</td>
<td>4,000</td>
</tr>
<tr>
<td>4. Taxable soft plastic bags</td>
<td>kg</td>
<td>30,000-50,000</td>
<td>40,000</td>
</tr>
<tr>
<td>5. Herbicides restricted in use</td>
<td>kg</td>
<td>500-2,000</td>
<td>500</td>
</tr>
<tr>
<td>6. Pesticides restricted in use</td>
<td>kg</td>
<td>1,000-3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>7. Forest product preservatives restricted in use</td>
<td>kg</td>
<td>1,000-3,000</td>
<td>1,000</td>
</tr>
<tr>
<td>8. Warehouse disinfectants restricted in use</td>
<td>kg</td>
<td>1,000-3,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

Source: National Assembly of Vietnam
Benefit of Vietnam’s EPT

• Enhance the responsibility and awareness of organizations, individuals in environmental protection
• Encourage environment friendly production and consumption
• Encourage technology improvement
• Increase state budget in environmental protection
Literature review for impact assessment of Vietnam’s EPT law

- Two ex-ant studies on impact assessment using General Equilibrium Model are in place in 2010 - 2011 (Dirk Willenbockel commissioned by GIZ, and Ian Coxhead & Nguyen Van Chan from University of Agriculture I)
- There is no ex-post impact assessment on the effect of EPT
Literature review for impact assessment of Vietnam’s EPT law

- GIZ study simulated the impacts of EPT on:
  - Producer and user prices,
  - Sectoral output & employment,
  - Commodity structure of demand,
  - Government tax revenue,
  - CO2 emission,
  - Household welfare.
- Scenario: low and high tax scenario
- Based on the data in 2007 of Social Accounting Matrix
Literature review for impact assessment of Vietnam’s EPT law

- Ian Coxhead & Nguyen Van Chan’s study simulated experiments on 3 key commodities: coal, gasoline and other fuel, and pesticides
- Scenario:
  - Case A: elastic labor supply and there are no transfer from GoV to household increase (base case)
  - Case B: elastic labor supply and GoV uses revenue to increase transfer payment to poor households
  - Case C: supply of all labor types is fixed and there is no Gov transfer to household increase
- Based on the data in 2003 of Social Accounting Matrix
## Findings

<table>
<thead>
<tr>
<th>Impact-</th>
<th>GIZ’s study</th>
<th>University of Agriculture’s study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macro economic</td>
<td>- Refined liquid fuel taxes will be the dominant source of tax revenue</td>
<td>- Shows the modest but distinct decline in GDP growth (tax on energy ➔ pervasive effects, particularly transportation, fishery, etc)</td>
</tr>
<tr>
<td></td>
<td>- Environmental tax on fuel will have noticeable economy-wide repercussions in high scenario</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The rise in transportation service cost will affect transport margin for all non-service commodities</td>
<td>- Wage and other prices are reduced by taxes due to pervasive effects of energy cost</td>
</tr>
</tbody>
</table>
## Findings (cont.)

<table>
<thead>
<tr>
<th>Impact</th>
<th>GIZ’s study</th>
<th>University of Agriculture’s study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>Exchange rates appreciates &amp; real exports decline slightly</td>
<td>Affect the economy’s competitiveness in global market for a wide range of products</td>
</tr>
<tr>
<td>Specific industries/sectors</td>
<td>The tax-induced fuel price increase will raise the production costs &amp; output prices of fuel-intensive sector (fishing &amp; transportation)</td>
<td>Energy generation &amp; energy-intensive industries are most heavily affected (transportation, fishery)</td>
</tr>
<tr>
<td>CO2 emission</td>
<td>CO2 emission drop by ~ 2.3% under low and by 7.5% under high tax rate scenario (9.3 million tons in 2012 – high tax scenario)</td>
<td>No assess</td>
</tr>
</tbody>
</table>
## Findings (cont.)

<table>
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| Household welfare & employment | Household welfare declines significantly across all household groups (not take into account the welfare gains due to environmental impacts) | - Real incomes for almost household types are reduced (biggest loss from urban households)  
- Without transfer, the tax sharply raise the poverty (90% poor rural households and 50% poor urban households experience income decline)  
- impede job growth as increasing the rate of lump-sum transfer to households will not contribute significantly to employment growth |
<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weakness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- A good start for the first environmental taxation in Vietnam</td>
<td>- Revenue of environmental tax used as usual tax revenue, only environmental fees &amp; charges are for environmental purposes</td>
</tr>
<tr>
<td>- Taxes are levied on the consumed physical units rather than on percentages of prices. This corresponds to international best practices as the actual amounts of used unit harm the environment, independent of its price</td>
<td>- Missing a number of products that could be harmful to environment like: industrial detergents, cigarettes, etc</td>
</tr>
<tr>
<td></td>
<td>- Lack of comprehensive supporting policies/ standards/ regulations to implement the law properly (plastic bag, gasoline, etc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Receiving financial &amp; technical support from international donors for green growth and climate change mitigation</td>
<td>- Top-down approach of the Government of Vietnam led obstacles in implementation</td>
</tr>
<tr>
<td>- Lower emission could help to approach the compensation from international community</td>
<td>- Horizontal harmonization was not in place (lack of coordination mechanism particularly among ministries)</td>
</tr>
<tr>
<td></td>
<td>- Social welfare could be affected creating social instability</td>
</tr>
<tr>
<td></td>
<td>- Tax-induced increase of price could reduce the competitiveness of Vietnam in global economy (especially in trade)</td>
</tr>
</tbody>
</table>
The role of environmental tax law in a green economy transition process - Vietnam case

- **Effective tool for environmental policy:** increase the tax revenue for state budget
- **Increase the green investment:** energy consumption and energy intensive will be affected most by the tax that encourage the increase of green technology or energy efficiency use technology
- **One of most effective tools in addressing environmental externalities:** increase in gasoline price positively influences investment for renewable energy, etc

⇒ Starting point of one enabling condition for the green economy transition process
Toward a green economy transition

- Environment Protection Tax provided a framework condition and economic incentives for sustainable production and consumption patterns. It could contribute simultaneously to resource efficiency, environmental protection and poverty reduction in Vietnam. However, a lot of obstacle in its implementation and the taxation itself
  - An ex post study to assess the EPT comprehensively should be in place
  - There is a need of developing a comprehensive and proper environmental tax policy and supporting regulation/standards
  - A mid and long term roadmap for environmental tax should be developed.
Recommendations for green economy transition (cont.)

- Take advantage of the EPT:
  - Environmental tax revenues could also be used to offset cost increase in energy-intensive and employment-intensive industry ➔ the additional revenue should be used for environmental purpose mainly
  - Lower emission could help to approach the compensation from international community (CDM, NAMA, Joint Crediting Mechanism, Green Climate Fund)

- Other enabling conditions for a green economy should be considered: establishing regulatory framework, government investment prioritization, capacity development and enhancing
Thank you for your kind attention!