Special Economic Zones and Economic Corridors in the Mekong Region: Focusing on Thailand

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Today’s Presentation

• Before “Zone System, 1987” in Thailand
• Zone System for Investment since 1987
  - Tax holiday Policies based on “Zone System” in Thailand
  - Provinces and Industrial sectors which succeeded in attracting FDI
    Map Tha Phut: Petrochemical (gas-chemical) industries
    Eastern Sea Board and Ayutthaya: Automotive and its supporting Industries
    Chiang Mai & Lam Phun: Precision, semiconductors and jewelry processing
    High value-added agricultural products
• Greater Mekong Subregion Economic Cooperation
• New Investment Policies (Post-Zone System)
• Industrial Cluster Policies (Post-Zone System)
• Comparing SEZ Policies and Evaluation of Industrial Clusters
Before Zone System, 1987 in Thailand
Regulation on Foreign Firm (1972) under Import Substitution Industrialization

- Industries A (Rice Crop, Accounting, etc.) to be imposed to localize until local majority
- Industries B (Rice Mill, Wood Curving, etc.) only existing foreign firms to keep majority
- Industries C (Others) to need permission for foreign firms majority

\[\downarrow\]

In 1983, 100 foreign capital with condition that 100% of products are exported (1983)

But, Foreign Direct Investment was still regulated
Deregulation of Foreign Capital in 1986

• 100% of Foreign Capital is permitted
  — if 80% of products are exported
  → 50% of products are exported in 1986 and in 1987
• Extension of Tax Exemption Period
• Import Duty Exemption of
  — production goods for export products
  — raw materials for export products
  + spare parts for machines
• Minimum capital — Bh. 5 million → 1 million

Rush of FDI in Bangkok and Surrounding Provinces
Zone System for Investment
In 1987

- **Zone 1**: Tax holiday: No
- **Zone 2**: Tax holiday: 3 – 5 years
- **Zone 3**: Tax holiday: 4 – 8 years

In 1988

- **Zone 1**: Tax holiday: No
- **Zone 2**: Tax holiday: 3 years
- **Zone 3**: Tax holiday: 5 – 8 years

In order to suppress the FDI rush into Bangkok and promote the investment in the under-developed area

*Source*: Created by the presenter based on JETRO (1988) and JETRO (1999).
between 2000 - 2014

Zone 1
- In industrial park: 3 years
- Out of industrial park: No

Zone 2
- In industrial park: 5 – 7 years

Zone 3 (General)
- Tax holiday: 8 years
- In industrial estate: 5 years’ reduction

Zone 3 (Special)
- Tax holiday: 8 years
- Tax reduction: 5 years

Source: Created by the presenter based on Website of ASEAN Center, Japan.
Provinces Which Attracted FDI

- **Bangkok**
- **Erawan Gas Field** was discovered in 1973
- **Map Tha Phut (1985)**
- **Laem Chabang Port** (1991)
- **Nakhon Ratchasima**
- **Chiang Mai**
- **Lamphun Province Northern Industrial Estate** (689km away from Bangkok)
- **Precision Industry**
- **Automotive Industry**
- **Petrochemical Industry**

20 march 2006
Petrochemical Industries

1973 Erawan gas field was discovered
1985 Ethylene Plant

Natural Gas → LPG
        → Ethane → Ethylene → Polyethylene
        → Propane → Propylene → Polypropylene

1990s National Petrochemical Complex 2
  (based on imported naphtha)
2000s National Petrochemical Complex 3
2007 Inhabitants around complex filed complaints on pollutions to Administrative Court
2009 Administrative court ordered to stop 76 investment projects
2010 Most of the Projects were restarted
Contrasting Choice of Da Nang City

Da Nang City: in 2008 Declaration of Environmental City

Nghi Son Refinery and petrochemical llc

Dung Quat Petroleum Refinery

Formosa Ha Tinh Steel

POSCO
# Supporting Industries for Automotive

Lift of Regulation on Establishment of Automobile Assembly (1993)  
8 years corporate income tax exemption even in Zone 1

<table>
<thead>
<tr>
<th>Supporting Industries</th>
<th>Period</th>
<th>Supporting Industries</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Jig</td>
<td>1993-1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Foundry</td>
<td>1993-1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Grinding tool</td>
<td>1994-1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Surface preparation</td>
<td>1994-1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Machining Center</td>
<td>1994-1999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current Automotive Industries in Thailand

- **Production of automobiles in 2016**

<table>
<thead>
<tr>
<th>Sales</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota</td>
<td>244,317</td>
</tr>
<tr>
<td>Isuzu</td>
<td>143,170</td>
</tr>
<tr>
<td>Honda</td>
<td>107,342</td>
</tr>
<tr>
<td>Mitsubishi</td>
<td>55,409</td>
</tr>
<tr>
<td>Nissan</td>
<td>42,677</td>
</tr>
<tr>
<td>Others</td>
<td>175,873</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>768,788</strong></td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td><strong>1,944,417</strong></td>
</tr>
</tbody>
</table>

- Production in 2012 was 2,453,717
  (The exports were 1,026,671, because of “First Car Policy”)

- **Number of Suppliers**

  - Tier 1 + Tier 2: Foreign 299
    Joint Venture 190
    Local 146
    Total 635
  - Tier 3 More than 1,700

Source: Produced by Presenter based on Kasuga (2014).
# Automotive Production in the World

<table>
<thead>
<tr>
<th></th>
<th>2015 Production</th>
<th>2015 Sales</th>
<th>2016 Production</th>
<th>2016 Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. China</strong></td>
<td>24,567,250</td>
<td>24,661,602</td>
<td>28,118,794</td>
<td>28,028,175</td>
</tr>
<tr>
<td><strong>2. U.S.</strong></td>
<td>12,105,988</td>
<td>17,845,624</td>
<td>12,198,137</td>
<td>17,865,773</td>
</tr>
<tr>
<td><strong>3. Japan</strong></td>
<td>9,278,238</td>
<td>5,046,510</td>
<td>9,204,590</td>
<td>4,970,260</td>
</tr>
<tr>
<td><strong>4. Germany</strong></td>
<td>6,033,364</td>
<td>3,539,825</td>
<td>6,062,562</td>
<td>3,708,867</td>
</tr>
<tr>
<td><strong>5. India</strong></td>
<td>4,160,585</td>
<td>3,424,836</td>
<td>4,488,965</td>
<td>3,669,227</td>
</tr>
<tr>
<td><strong>6. South Korea</strong></td>
<td>4,555,957</td>
<td>1,833,786</td>
<td>4,228,509</td>
<td>1,823,041</td>
</tr>
<tr>
<td><strong>7. Mexico</strong></td>
<td>3,565,218</td>
<td>1,389,474</td>
<td>3,597,462</td>
<td>1,647,723</td>
</tr>
<tr>
<td><strong>8. Spain</strong></td>
<td>2,733,201</td>
<td>1,277,059</td>
<td>2,885,922</td>
<td>1,347,344</td>
</tr>
<tr>
<td><strong>9. Canada</strong></td>
<td>2,283,307</td>
<td>1,939,517</td>
<td>2,370,271</td>
<td>1,983,745</td>
</tr>
<tr>
<td><strong>10. Brazil</strong></td>
<td>2,429,421</td>
<td>2,568,976</td>
<td>2,156,356</td>
<td>2,050,321</td>
</tr>
<tr>
<td><strong>11. France</strong></td>
<td>1,972,000</td>
<td>2,345,092</td>
<td>2,082,000</td>
<td>2,478,472</td>
</tr>
<tr>
<td><strong>12. Thailand</strong></td>
<td>1,909,398</td>
<td>799,632</td>
<td>1,944,417</td>
<td>768,788</td>
</tr>
<tr>
<td><strong>13. U.K.</strong></td>
<td>1,682,156</td>
<td>3,061,406</td>
<td>1,816,622</td>
<td>3,123,755</td>
</tr>
<tr>
<td><strong>14. Turkey</strong></td>
<td>1,358,796</td>
<td>1,011,194</td>
<td>1,485,927</td>
<td>1,007,857</td>
</tr>
<tr>
<td><strong>15. Czech Republic</strong></td>
<td>1,246,533</td>
<td>260,070</td>
<td>1,349,896</td>
<td>291,008</td>
</tr>
</tbody>
</table>

Source: International Organization of Motor Vehicle Manufacturing (OICA).
**Lamphun in Thailand**

- **Chiang Mai**
  1) Population: 1,728,242
  2) Former capital of *Lanna* Kingdom from the 13th-18th C
  3) Regarded as the second city in Thailand (the 5th largest)

- **Northern Region Industrial Estate (Lamphun)**

- **Choices for companies**
  a) air transport: good airport
  b) Well-paved road to Bangkok

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**Highly Value Added Components**

1) Crystal Device
2) Optical Parts
3) Semiconductors
4) Precision Components
5) etc.

**Fresh fruits**
## Northern Industrial Estate in Lamphun

<table>
<thead>
<tr>
<th>Industry</th>
<th>Thai</th>
<th>Japan</th>
<th>Swiss</th>
<th>France</th>
<th>USA</th>
<th>Taiwan</th>
<th>Others</th>
<th>J. V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>14</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>6</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Agro</td>
<td>6</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Jewelry</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td>3</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Ornament</td>
<td>1</td>
<td>3</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Machinery</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Motorcycle part</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Other Manufac.</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Services</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
<td>23</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td></td>
<td>65</td>
</tr>
</tbody>
</table>

Source: Classified by the presenter with the material supplied by Northern Industrial Estate.
**Simple Formula**

<table>
<thead>
<tr>
<th>Unit Price per weight</th>
<th>Transportation Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>If it is higher, disadvantages can be reduced</td>
<td>OR</td>
</tr>
<tr>
<td>Ex) Swiss Watch</td>
<td>If it is Lower, disadvantages can be reduced</td>
</tr>
<tr>
<td></td>
<td>Ex) Swiss Watch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transportation Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>If it is Lower, disadvantages can be reduced</td>
<td>Ex) Swiss Watch</td>
</tr>
</tbody>
</table>
Truck or Air Cargo?

15%

Chiang Mai - Suvarnabhumi

More Competition

Narita

Less Competition

85%

Chiang Mai - Suvarnabhumi - Narita

12 hours
Climate Similar to Sub-tropical Area

- **Height above sea level**

  **Chiang Mai:**
  - City: 300m
  - Highest: 2,565m

  **Chiang Rai**
  - Average: 580m
  - Highest: 1,389m

Source: Thai Meteorological Department and other materials.
High-Value-added Agricultural Products

<Examples>

• Doi Tung Coffee in Chiang Rai
• High land vegetables such as lettuce and carrot (Royal Project in Chiang Rai)
• Tea leave plantation as well as barley and nutmeg in Chiang Rai (see photos on the left)
• Frozen vegetables in Chiang Mai and Chiang Rai
• Fruit and vegetable juice in Chiang Mai and Chiang Rai
• Cut flowers in Chiang Mai
Larger Aircrafts Give More Opportunities

- **Space at Lower Deck**
  - Boeing 777: 264.9 m³
  - A320: 37.5 m³
    \[ \left\{ \begin{array}{c}
      \text{Boeing 777: } 264.9 \text{ m}^3 \\
      \text{A320: } 37.5 \text{ m}^3
    \end{array} \right\} \text{ 7 times} \]

- **Thai Air (Bangkok --> Chiang)**
  - Boeing 777-300: 5 round trips
  - A300: 3 round trips
    (but not enough be utilized)

- **For larger air crafts**
  - Co-development of tourism

*Source: Ishida (2015).*
## Availability of Industries with Conditions

<table>
<thead>
<tr>
<th>Inland area</th>
<th>Population</th>
<th>Access to port</th>
</tr>
</thead>
</table>
| • Heavy industries like petrochemical and/or steel industries  
  • Or development of coastal resorts and supporting fisheries are another choices | • Precision industries and semi-conductors  
  • Semi-tropical agricultural products in Thailand | • All industries are available  
  • In Thailand, automotive electric, electronics industries are agglomerated  
  • Wages and land prices are likely to be higher |
| • Cement, rubber factories sugarcane factories  
  • Rice, maize, cassava, fruits, tea, coffee, beans, pepper, etc. |
Greater Mekong Subregion Economic Cooperation
Three Economic Corridors

Main components Economic corridors are cross-border transport Infrastructures!

Source: Created by the presenter in accordance with website of ADB in the past.
GMS new corridors connect big cities

Source: Created by the presenter in accordance with website of ADB in the past.

Big cities are connected by economic corridors!

Border areas are also developed!
GDP per Capita in Mekong Region

For Thai firms, there are incentives to move labor-intensive industries to CLMV countries.
Manufacturing Industries at Border Areas

• Advantages of Lower Income Countries
  - Lower wage of labor
  - Generalize system of preferential tax

• Advantages of Higher Income Countries
  - Better Electricity Infrastructure
  - Better Transport Infrastructure

• Supporting Soft Policies
  - One Stop Service
  - Bonded cross-border customs clearance
  - Working visas of both countries for foreign managers

These policies are effective for remote areas along corridors
Examples of “Thailand Plus One”

1. Vertical fragmentation between pre-and final-assembles

![Diagram showing vertical fragmentation between Thailand and Laos.](source: Suzuki (2009))

2. Boomerang-type vertical fragmentation

![Diagram showing boomerang-type vertical fragmentation between Thailand and Cambodia.](source: Suzuki (2014))
Connecting mother plant & subsidiaries

Source: Created by the presenter in accordance with website of ADB in the past.
New Investment Policies
New Investment Policies

Investment Incentive Policies after Zone System

1 Jan. 2015 New Investment Policies

A1: Promote national competitiveness through R&D, innovation, value creation in the agricultural, industrial, and services sectors, SMEs, fair competition, and inclusive growth → 8 years exemption + 5 years reduction

A2: Infrastructure necessary for economic development in Thailand and activities creating scarce value-added with advanced technologies → 8 years exemption

A3: Hi-tech activities necessary for economic development in Thailand which are scarce while they are existing → 5 years

A4: Activities which add values to domestic resources and enhance supply-chain while the technological levels are lower than A1 – A3 → 3 years exemption
Income Gap in Thailand

20 Provinces with lower Income → 3 years tax exemption

Income index of provinces

Low income provinces are:
1) In Northeastern Thailand
2) Border Provinces

Income Index

- 0.6477 - 0.7745 (14)
- 0.5955 - 0.6477 (13)
- 0.5589 - 0.5955 (15)
- 0.4999 - 0.5589 (16)
- 0.3472 - 0.4999 (16)
Border SEZs

- **Tax Incentives**
  8 years exemption + 5 years reduction
  (if invest in the sectors designated by border)

- **Employing workers of neighboring countries**

- **Tax deduction for expenditure for transportation, electricity and constructing infrastructure**
Industrial Cluster Policies
Industrial Cluster Policies

Industrial Cluster Policies announced on 16 Sep., 2015

Super Clusters: 8 years exemption + 5 years reduction if invest in eligible economic activities

(1) Automotive and parts cluster
(2) Electrical appliance, electronic & telecommunication cluster
(3) Digital economic cluster
(4) Eco-friendly petrochemicals & chemical products cluster

Other Clusters: 5 years exemption if invest in eligible economic activities

(5) Textile & garment cluster
(6) Agro-processing industrial cluster
Automotive & Electric Clusters

Automotive and Parts Cluster

Important Parts and Components
1) Parts using advanced technologies
2) Safety and energy efficient system
3) Equipment for Hybrid, EV, PHEV cars
4) Fuel injection parts/transmission/engine system
5) Manufacture of automobile tires

Electrical Appliance, Electronic & Telecommunication Cluster

Important Parts and Components
1) Electronic design e.g. microelectronics design
2) Electronic products & parts using advanced technologies such as telecom equipment, electronics parts for medical devices, automotive, HDD, etc.
3) Materials for microelectronics such as wafers & thin film
4) Advanced technology electrical appliances like IoT
Digital Economy Cluster

1) Software
2) Cloud service
3) Data center
4) Software park
5) Movie town
6) Motion picture

Phuket

Chiang Mai

Eligible Activities

1) Eco-friendly chemicals or polymers
2) Bio-plastic-coated paper packaging

1) Software
2) Cloud service
3) Data center
4) Software park
5) Movie town
6) Motion picture

Chonburi
Rayon

Eco-friendly Petrochemicals & Chemical Products Cluster
Textile & Garment Cluster
1) Functional fiber / recycled fiber
2) Functional yarn or fabric
3) Bleaching, Dyeing and finishing
4) Garments, clothing accessories & household textiles
5) Creative products design & development center

Agro-processing Industrial Cluster
1) Plant & Animal Breed
2) Natural extracts
3) Medical food or food supplement
4) Trading centers for agricultural products

Different climate conditions

to/from Myanmar  ←  to/from Cambodia

1) Products manufactured from natural rubber
2) Robber processing industrial estates
Comparing SEZ Policies and Evaluation of Industrial cluster
## SEZ Rules in Five Mekong Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Rule on Area</th>
<th>Incentives</th>
<th>Related Law and Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>Area $\geq$ 50 ha Has to be fenced</td>
<td>One Stop Service, Bonded Customs Clearance</td>
<td>Sub-Decree No. 148 on the Establishment and Management of the Special Economic Zone, Dec. 29, 2005</td>
</tr>
<tr>
<td>Laos</td>
<td>Area $\geq$ 1,000 ha</td>
<td>Own Incentive Policy</td>
<td>Law on Investment Promotion, No.2 2009, Jul. 8, 2009</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Sufficient Land Area (400-25,000 ha), have Inter-</td>
<td>Tax holidays</td>
<td>Special Economic Zone Law, No. 1, 2014, Jan. 23, 2014</td>
</tr>
<tr>
<td></td>
<td>national Gates</td>
<td>$\bullet$ 5 years (FDI Law) $\Rightarrow$ $\bullet$ 5-7 years exemption + 5 years reduction</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td>Tax holidays (8 years exemption + 5 year</td>
<td>National Committee on Special Economic Zone Development (NC-SEZ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reduction), One Stop Service, Employment of</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Migrant Workers</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Area $\geq$ 10,000ha</td>
<td>Financial Support for Provinces, Bonded Customs</td>
<td>Decree No. 29 on Industrial Parks, Export Processing Zones and Economic Zones, Mar. 14, 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clearance</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Created by the author in accordance with SEZ-related laws and Shiraishi (2010).*
Differences by Country

• Locations of SEZ
  1) CLM Countries: metropolitans, ports or borderlands
     → Higher motivation to stimulate industrialization by connecting to the production networks and global value chain (GVC)
  2) Vietnam: coastal areas except metropolitans and borderlands
  3) Thailand: Only borderlands, but clusters are another type of SEZ
     → Higher motivation to reduce domestic development gaps and stimulate under-developed areas (Bangkok, Hanoi and HCMC have already received a lot of investment)

• Major Players
  1) Cambodia: all the developers are private and they apply to the government
  2) Laos: government, JV with government & private and pure private
  3) Myanmar: designated by the government and government & private operate
  4) Thailand: designated by the government and provinces call for investors
  5) Vietnam: each province applies for her own SEZ, the Central government designates and the SEZ calls for investors
     → In case of rural areas, private sectors do not have incentives to develop
Evaluation of Industrial Cluster Policy

• Industrial Cluster Policy
  SEZ in broader meanings as well as High Tec Parks in Vietnam

• Existing Tax Incentive Systems
  Tax incentives in accordance with specific industries
  Tax incentives in accordance with distances with capital

• Industrial Cluster Policy
  Tax incentives in accordance with good combination of specific industries based on provincial geographical characteristics and population.
Thank you !