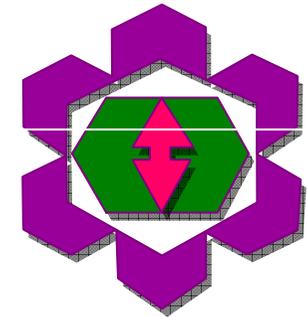




## **ECO INDUSTRIAL ESTATE and networks Development towards ECO TOWN and Eco-cities**



# INDUSTRIAL ESTATE AUTHORITY OF THAILAND



- **State Enterprise Founded in 1972**
- **Attached to the Ministry of Industry**

- **Develop and Manage Industrial Estates and I-EA-T Free Zone Throughout the Country**



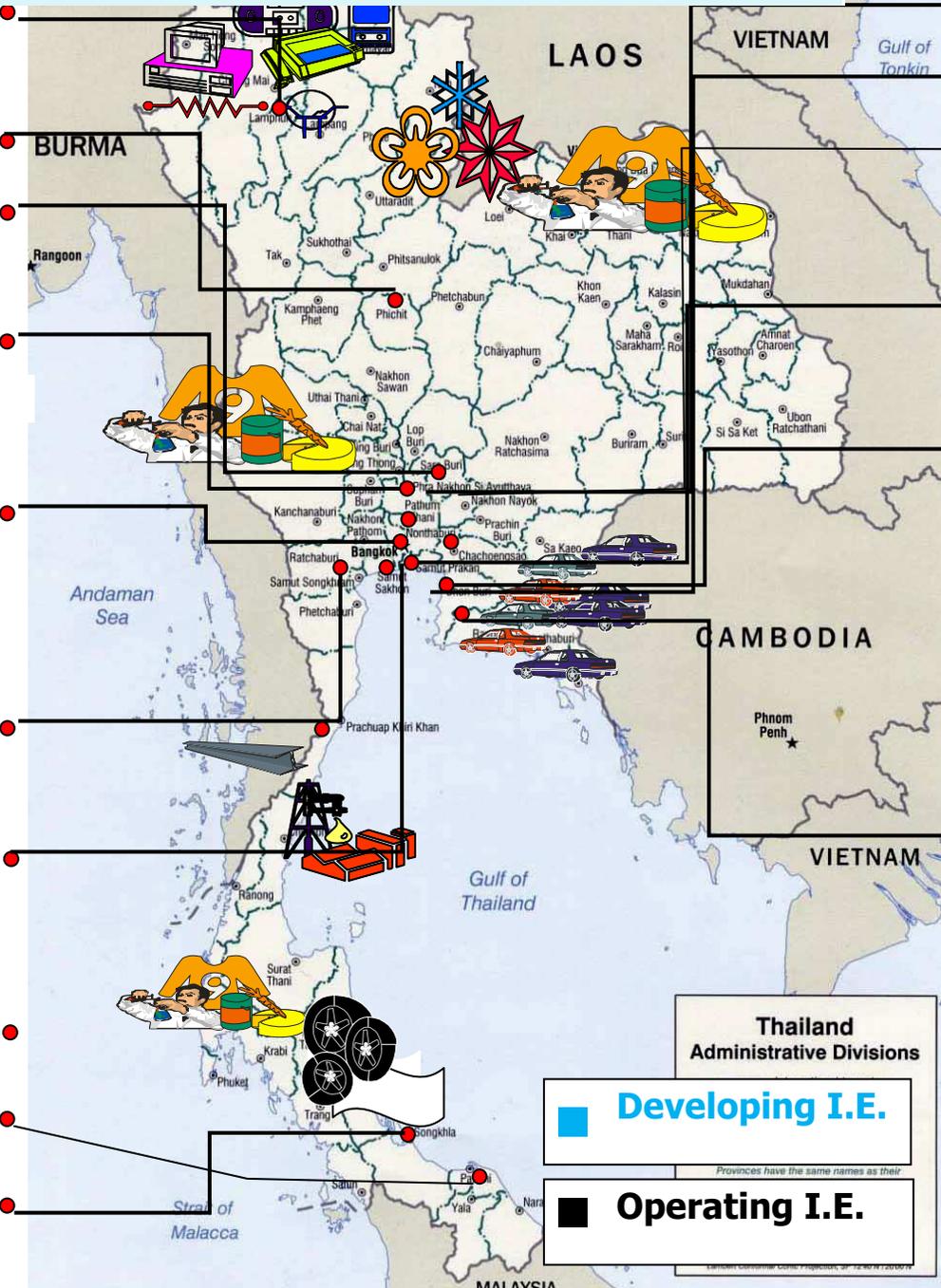
- **Develop Industrial Port**
- **Promote and Regulate all Industrial Estate in Thailand**

**Existing Industrial Estate (48 I.E. in 15 provinces)**

**I-EA-T Owned  
Joint Ventures**

**11 I.E.  
37 I.E.**

- LAMPHUN**
- Northern Region I.E.
- Lamphun I.E.
- Lamphun 2 I.E.
- PICHIT**
- Pichit I.E.
- SARABURI**
- Saraburi I.E.(Kaengkhoi)
- Nong Khae I.E.
- AYUTTHAYA**
- Hi-Tech I.E.
- Bang Pa-in I.E.
- Saharattanakorn I.E.
- BANGKOK**
- Bangchan I.E.
- Lat Krabang I.E.
- Gemopolis I.E.
- Gemopolis I.E.(Project 2)
- RATCHABURI**
- Ratchaburi I.E.
- V.R.M Ratchaburi I.E.
- SAMUT SAKHON**
- Samut Sakhon I.E.
- Sinsakhon I.E.
- Maharajnakorn I.E.
- PATTANI**
- Halal Food I.E. (Pattani)
- SONG KHLA**
- Southern I.E. (Songkhla)



- PETCHABURI**
- Service I.E. (Thai Diamond City)
- SAMUT PRAKARN**
- Asia I.E. (suvarnabhumi)
- CHACHOENGSAO**
- Well Grow I.E.
- Gateway City I.E.
- TFD I.E.
- SAMUTPRAKARN**
- Bangpoo I.E.
- Bangplee I.E.
- CHONBURI**
- Hemaraj Chonburi I.E.
- Amata Nakorn I.E.
- Amata Nakorn I.E.(Project2)
- Pin Thong I.E.
- Pin Thong I.E. (Laem Chabang)
- Laem Chabang I.E.
- Pinthong I.E. (Project 3)
- RAYONG**
- Map Ta Phut I.E.
- Hemaraj Eastern I.E.
- Padaeng I.E.
- Eastern Seaboard I.E. (Rayong)
- Amata City I.E.
- Hemaraj Eastern Seaboard I.E.
- Asia I.E.
- Asia Terminal I.E.
- RIL I.E.
- Rayong (Ban Kai) I.E.
- Lakchai I.E.

# Vision of I-EA-T (Year 2013-2015)

“A leading organization to create **Eco Industrial Settlement** with balance and sustainability”



# Scope of Eco-Industrial Estate & Networks



# Target of Eco-Industrial Estate & Network Development

## Phase 1: Development of a pilot Eco-Industrial Estate (Year 2010 - 2014)

1. Develop a standard for Eco-Industrial Estate & Network
2. Prepare a master plan for the development of Eco-Industrial Estate & Network in 15 pilot industrial estates, 3 estates each year
3. 15 pilot industrial estates join the Eco-Industrial Estate & Network development system in conjunction with the master plan implementation
4. Completion of the master plan implementation by 3 pilot industrial estates

## Phase 2: Expansion and extension of development areas (Year 2015-2019)

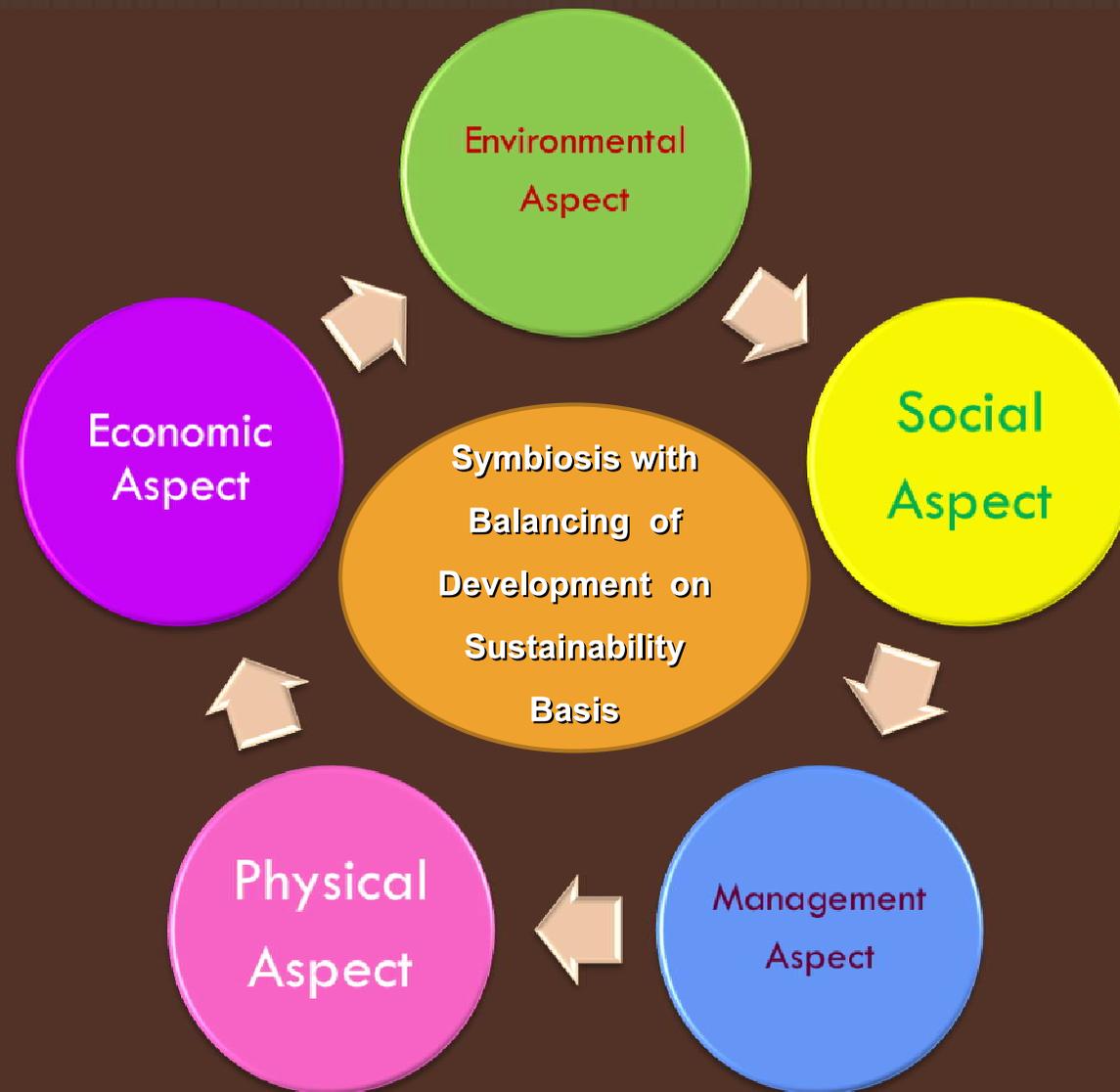
All operating Industrial Estates join the Eco-Industrial Estate & Network development system in conjunction with the master plan implementation





## Criteria and Development Concept of Eco Industrial Estate and Networks

# Eco Industrial Estate and Network



## Specification of Standards and Criteria

### 5 Dimensions 22 Aspects

An industrial estate to be developed and upgraded into Eco-Industrial Estate & Network must have the following characteristics;

- Published Industrial Estate development policy is in accordance with Eco concept with a strong interest in moving toward the goal.
- An industrial estate pursues in the implementation of Eco concept with the establishment of Eco Team and Eco Networks for the estate. At the same time, Eco Forum must be held periodically for Industrial Estates to exchange ideas with the core team from stakeholders. Then, all parties will be responsible for the collaborative development and management of an industrial estate together.
- Being equipped with an environment management systems as defined in ISO 14001



## The Goal of Eco-Industrial Estate & Networks

**The Ultimate Goal : Pleasant and sustainable co-existence of industry and community**

**Physical  
Aspect**

**Developing areas and infrastructures including a system for public utilities and facilities to be environmentally sound, sufficient, efficient and safe.**

**Economy  
Aspect**

**Creating factors promoting local and provincial economy**

**Environmental  
Aspect**

**Efficient utilization of resource and energy in the production process, waste reduction, and environmentally friendly products**

**Social Aspect**

**Happiness of people in the organization and community focusing on the good quality of life and society**

**Management  
Aspect**

**Effective Estate Management which focuses on the collaboration and good governance for the benefits of all parties involved**

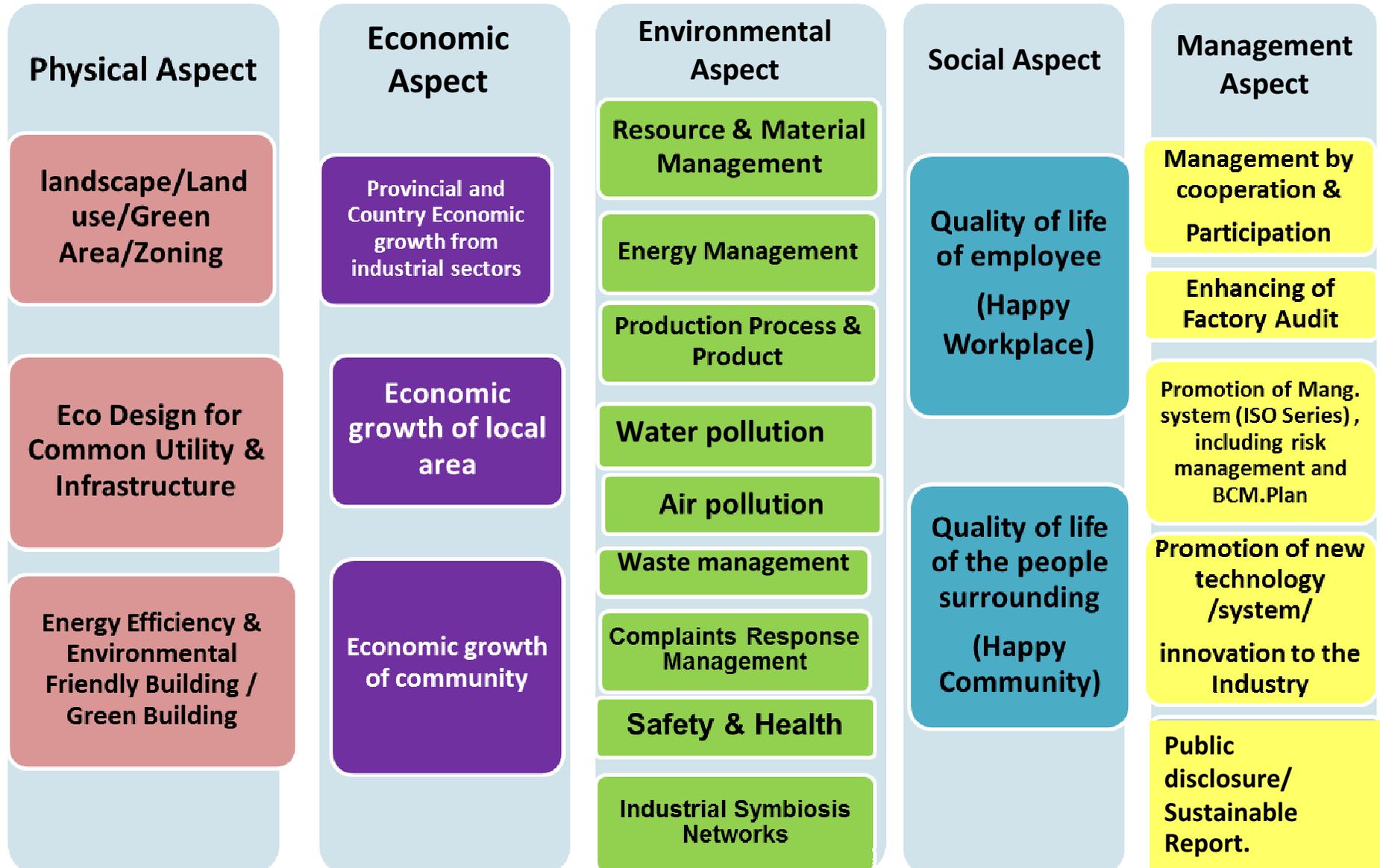




# The specification of standards and criteria for Eco Industrial Estate & Networks

The Ultimate Goal : Pleasant and sustainable co-existence of industry and community

## 5 Aspects 22 Areas



# Eastern Seaboard Development

- ❑ Map Ta Phut is Located in Rayong Province, 200 km. from Bangkok , eastern part of Thailand
- ❑ Being developed as a major heavy industries with natural gas related industries



# Map Ta Phut Petrochemical Complex



**Hemaraj**  
50 factories  
3,312 Rai (5.30 km<sup>2</sup>)

**RIL**  
6 factories  
1,660 Rai (2.66 km<sup>2</sup>)

**Asia**  
12 factories  
3,220 Rai (5.15 km<sup>2</sup>)

**Map Ta Phut**  
67 factories  
10,215 Rai (16.34 km<sup>2</sup>)

- 5 Industrial Estates & Map Ta Phut Port
- 21,862 Rai (34.97 km<sup>2</sup>)
- 151 Factories
- 900 Billion Baht of Investment

**Padaeng**  
4 factories  
540 Rai (0.86 km<sup>2</sup>)

**Map Ta Phut Port**  
12 factories  
2,915 Rai (4.66 km<sup>2</sup>)

km<sup>2</sup>)

■ HEMARAJ INDUSTRIAL ESTATE  
■ ASIA INDUSTRIAL ESTATE (MAP TA PHUT)  
■ MAP TA PHUT INDUSTRIAL ESTATE  
■ PADANG INDUSTRIAL ESTATE  
■ RIL INDUSTRIAL ESTATE



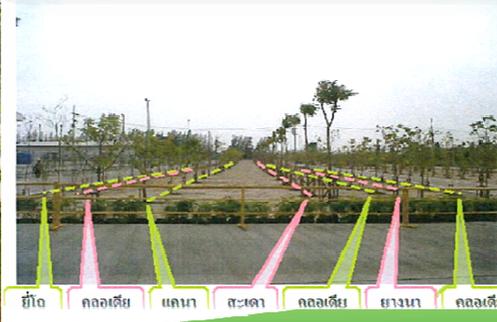
# Physical Dimension

Developing areas and infrastructures including a system for public utilities and facilities to be environmentally sound, sufficient, efficient and safe.

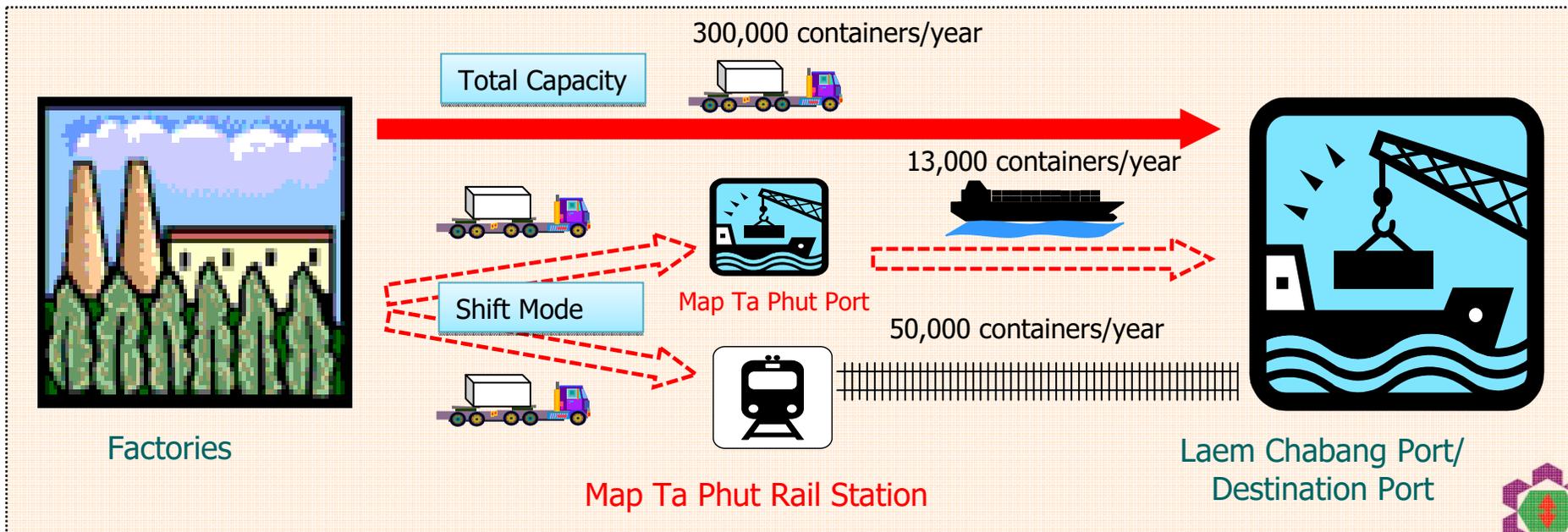
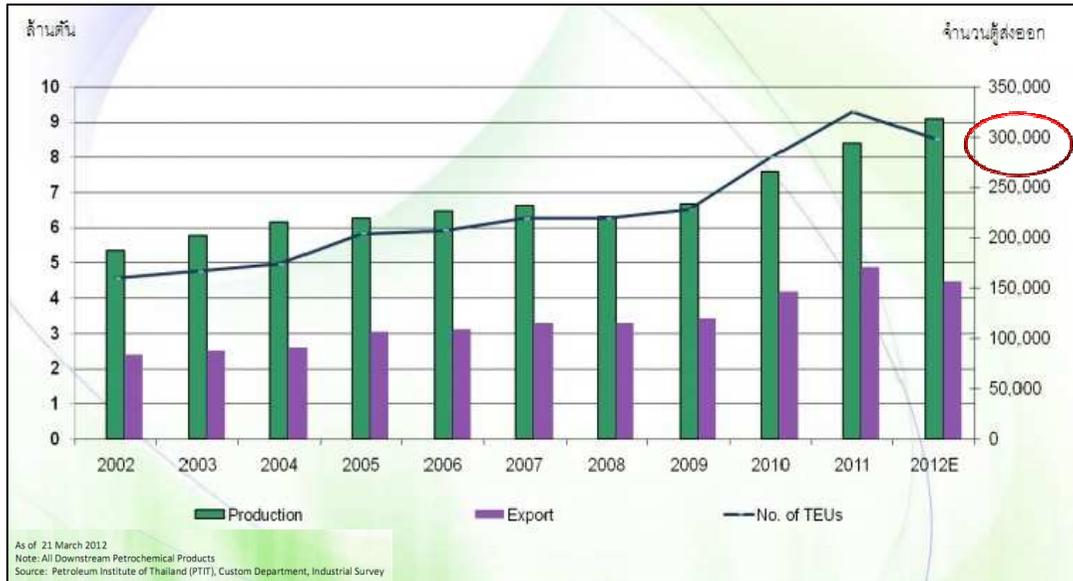
landscape/Land use/Green Area/Zoning

Eco Design for Common Utility & Infrastructure

Energy Efficiency & Environmental Friendly Building / Green Building



# Green Logistics



## Economic Dimension

## Creating factors promoting local and provincial economy

Provincial and Country Economic growth from industrial sectors

Economic growth of community

Economic growth of community



## Environmental Dimension

Efficient utilization of resource and energy in the production process, waste reduction, and environmentally friendly products

Resource & Material Management

Energy Management

Production Process & Product

Water pollution

Air pollution

Waste management

Complaints Response Management

Safety & Health

Industrial Symbiosis Networks

## Environmental and Safety Management



## Social Dimension

Happiness of people in the organization and community focusing on the good quality of life and society

Quality of life of employee  
(Happy Workplace)



Quality of life of the people surrounding  
(Happy Community)



เมืองอุตสาหกรรมเชิงนิเวศ  
พัฒนาทั่วโลก ก้าวไปเมืองสีเขียว

**Management Dimension**

**Effective Estate Management which focuses on the collaboration and good governance for the benefits of all parties involved**

**Mechanism of Environmental Good Governance**

**Management by cooperation & Participation**

**Enhancing of Factory Audit**

**Promotion of Mang. system (ISO Series) , including risk management and BCM.Plan**

**Promotion of new technology /system/ innovation to the Industry**

**Public disclosure/ Sustainable Report.**



**Display Mobile Unit**



**Display Station**



**Display Board : Factory Level**



**Display Board : Community Level**

10/12/56



# EIA Monitoring



Set up EIA Monitoring Committee with local communities, Pollution and Control Department, etc. in Year 2009.



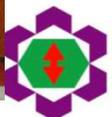
Impact  
ports





# Green Star Awards / Gold

Walk through and Evaluate Factories with Local Communities



Year 2007: 32 factories  
 Year 2008: 49 factories  
 Year 2009: 47 factories  
 Year 2010: 56 factories  
 Year 2011: 86 factories  
 Year 2012: 96 factories  
 (Green Star)

: 18 factories  
 Communities and IEAT visit  
 (Gold Star) factories twice a year.



*Thank you*



[www.ieat.go.th](http://www.ieat.go.th)

