

M Measuring
and

M Monitoring

S Sustainable Development

THE 2013 BANGKOK CONFERENCE
GLOBAL DIALOGUE
ON SUSTAINABLE DEVELOPMENT

Group 5

Thanin Pa-em
Deputy Secretary-General, NESDB
October 10, 2013
Centara grand at Central World

Outline

- 1** Sustainable development in Thailand: Definition and Progress
- 2** The 11th National Development Plan and Strategy
- 3** Monitoring and Evaluation System
- 4** Constraints and Solutions
- 5** Eastern Seaboard Development Project: A case of Map Ta Phut

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Sustainable Development (SD): Definition

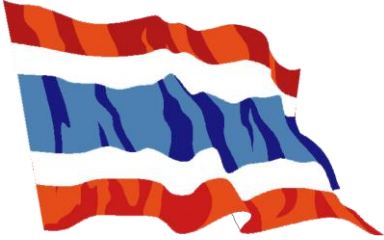
World Commission on Environment and
Development



is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

SD in Thai Context: Definition

Venerable Phra Dhammapitaka



Defines SD as “the development that has been integrated in one, applying a holistic concept which refers to the combination of every factor yet maintaining the balance, or in other words, making the human activities to conform to the law of nature.”

NESDB



The Philosophy of “Sufficiency Economy”

Ecological Dimension

The Value of natural resource: Increase efficiency of the usage, prolong the usage, and revive as well as replace appropriately

Economic Dimension

- Employ the cleanest technology
- Not release or empty the polluted substance into ecosystem in the amount that exceeds the nature tolerance level or treatment ability

Social Dimension

- People has safe consumption standard and the nature can bear with that standard
- Impartial distribution of production and consumption

Progress of Sustainable Development in Thailand

The National Economic and Social Development Plan (1st-11th)

1st-4th Plan

Mainly emphasize the economy development, investment in infrastructure, and usage of natural resource as a production factor; and urge the production that can increase income. As a result, natural resources were destroyed and environment was deteriorating.

5st-6th Plan

Realize the devastation and begin the policy that relates to environment and natural resources by engaging in the economic restructuring, and setting the policy of balanced development between economy and society.

7th Plan

Initiate the “Sustainable Development” concept, aiming at economic stability while maintaining economic growth rate, distributing the development to regional and rural areas, improving quality of living/natural resources/environment, and upgrading the economy to the regional forefront as well as the international level.

8th Plan

Start the “people-centered development” policy, changing the development paradigm to application of the holistic integration approach in order to balance among the economic, social and environmental development while using the economy as a tool to make people happy and has good quality of living.

Progress of Sustainable Development in Thailand

The National Economic and Social Development Plan (1st-11th)

9th Plan

... Respectfully embrace “the sufficiency economy philosophy” as a guiding light in developing and administering the country along with the integrated development with people being a center, including placing the importance in balancing the improvement among people, society, economy, and environment in order to gain sustainable development and wellbeing of Thai people...

10th Plan

...Adhere to the “the sufficiency economy philosophy” and “people-centered development”, in addition to building the “balanced development” in every dimension in order to achieve the wellbeing of Thai Society

Evolution of Development Plans

1st – 7th Development Plans

Utilizing cheap labor and natural resources



Focusing on stable economic growth and poverty alleviation



11th Development Plan

**Knowledge
+ Technology and Innovation
+ Creativity**



**Balance
and Sustainability**



8th – 10th Development Plans

**Human-Centered
Development**



**Towards
Sufficiency Economy**



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The 11th National Economic and Social Development Plan (2012-2016)

Vision

**“A happy society with
equality, fairness and resilience”**

Goals

- Thai society will become a better place, characterized by harmony and the well-being of its people
- All citizens will acquire lifelong learning opportunities and better health
- Thai economy is expected to provide inclusive growth at a moderate pace
- Science and technology, as well as research can increase their roles in creating economy, society and environment
- Environmental quality will be improved to meet international standards

Strategy

Creating quality citizen and society

1. Creating the just society
2. Developing a lifelong learning society

Natural Resource Management

6. Planning the change management to handle the climate and environmental uncertainties and gear toward the low carbon and environmental-friendly society

Economy Restructuring

3. Strengthening the agricultural sector and security of food and energy
4. Restructuring the economy toward quality growth and sustainability
5. Creating regional connectivity for social and economic stability

Goals of the 11th development Plan

National well-being
Happiness = f

Equity



Green



Creativity



Beyond Gross Domestic Product...

...Living peacefully among people, between people, nature and environment sustainably

Thailand's Strategy

11th NESD Plan

+ Government Policies



Country Strategy

Regional Strategy

Provincial Strategy

Ministry
Action Plan

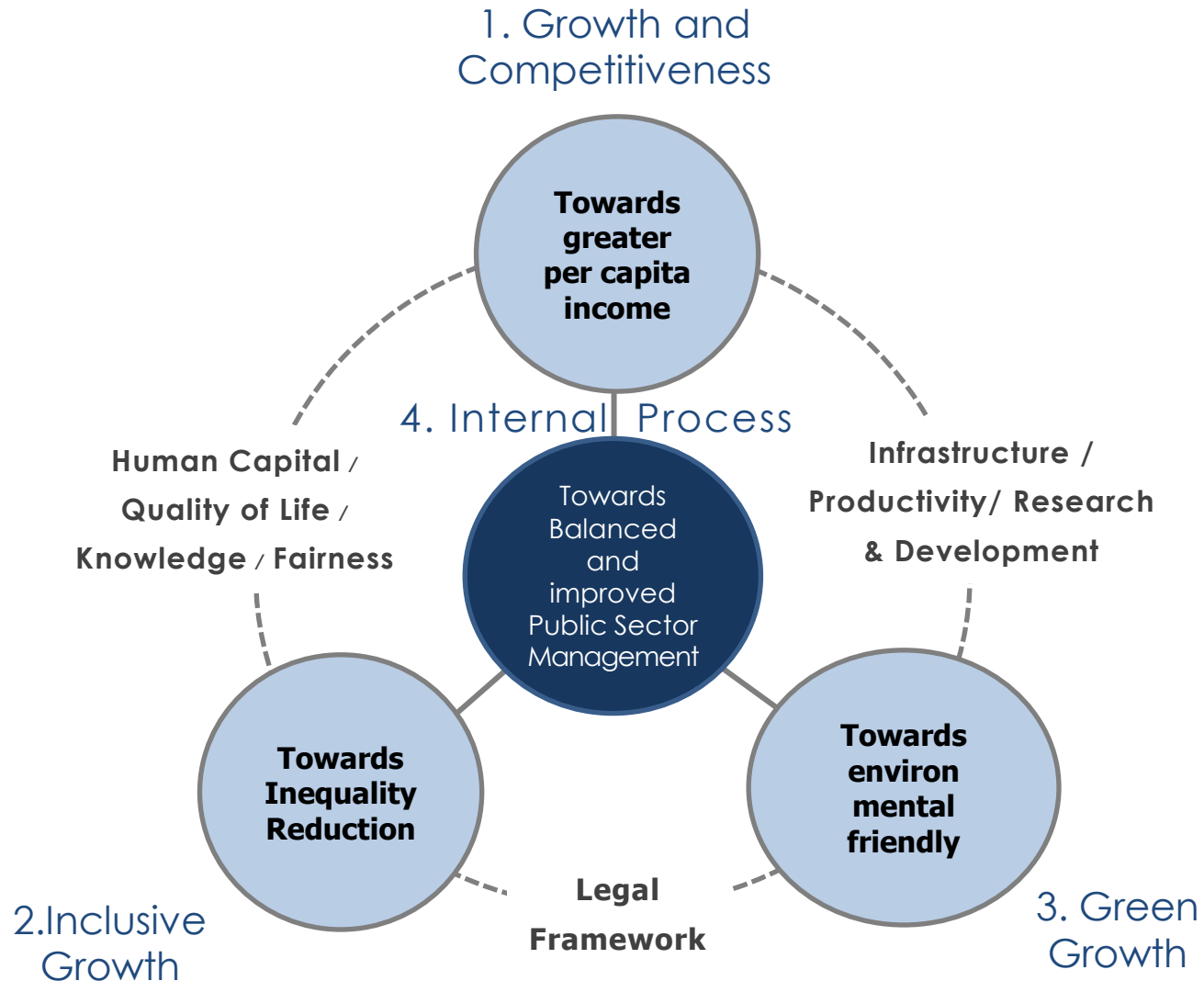
Regional Action Plan

Provincial Action Plan

Regional = Province-Clustered

Thailand's Strategy

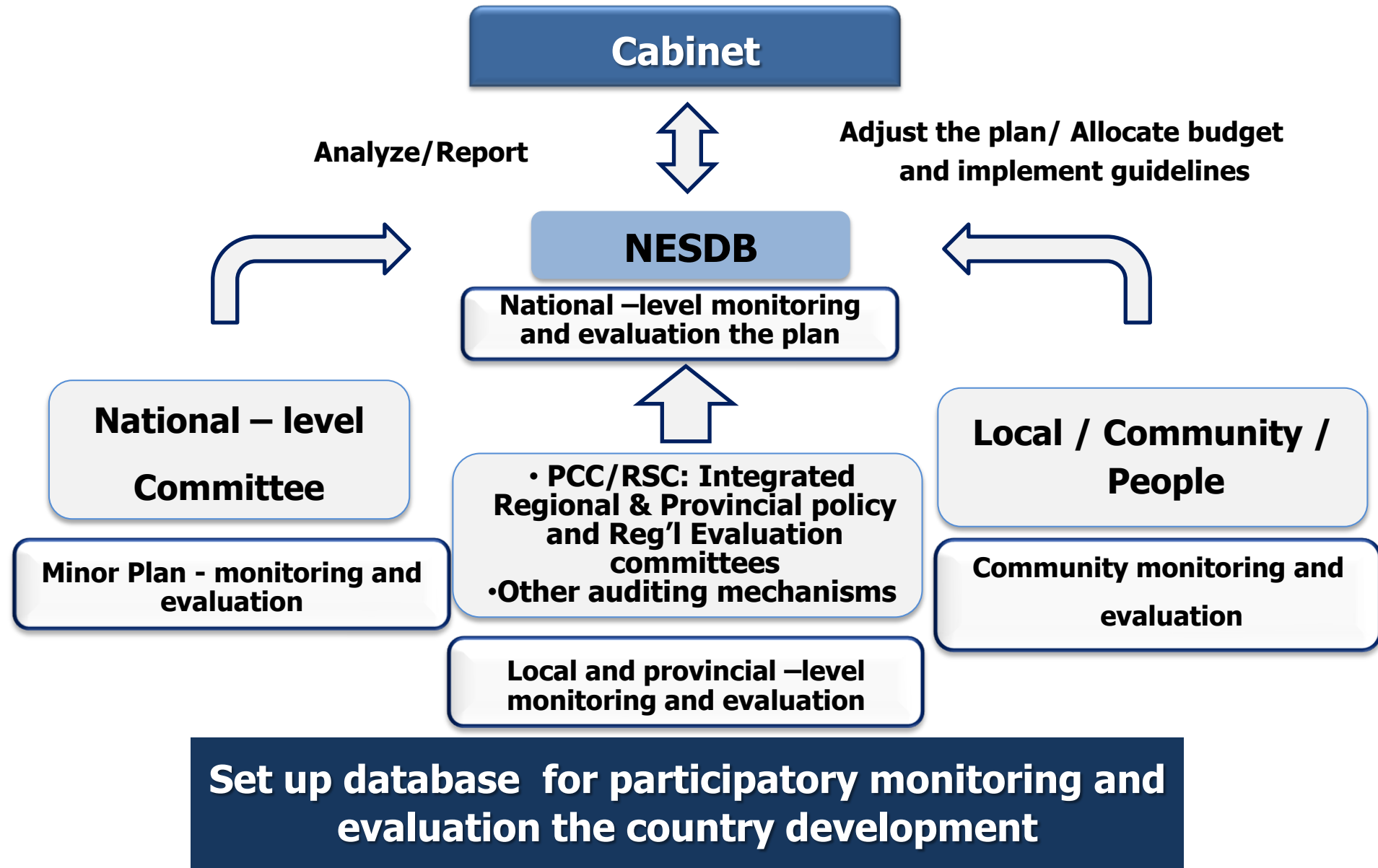
The Country's New Growth Model



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Country Development: Monitoring and Evaluating Mechanism



Monitoring and Evaluation Tools

4 decades of
Thailand's
development

new paradigm shift during
8th-9th plan

Philosophy of Sufficiency
Economy

- Economic-led development
- fragmented

- Human-centered development
- Holistic approach
- Social-led development
- People participation



"Green and
Happy Society"



Measurement

GDP

Index for impact evaluation, such as
well-being, economic strength, and
sustainable development

Green &
Happiness Index
(GHI)



Sustainable Development Indicators

Economic Dimension

SD prioritizes the value of natural resources by increasing the efficiency in natural resource & environment usage, prolong the usage, and revive as well as replace appropriately.

The sub-components include

1. Development with quality
2. Development with stability
3. Disperse the security

Society Dimension

- **People has safe consumption standard and the nature can bear with that standard**
- **Impartial distribution of production and consumption**

The sub-components include

1. Improve of capability and adjust oneself to the knowledge –based society.
2. Improve quality of life and living stability
3. Create impartiality and participation

Environ. Dimension

Manage natural resources and environment efficiently while balancing between the economic usage and natural abundance in order to respond to the demand of the current generation and preserve it for next generation and allocate the opportunity and participation in management with equality and fairness

The sub-components include

1. Preservation
2. Good quality environment

Thailand's GHI



Definition of Elements “Happy Society”

The state in which people has good quality of life, continues their living with a mental, physical and intellectual balance, relating to the economy, society and environment holistically and connecting well among each of those. As a result, they can live together peacefully either people with people or people with nature and environment.

6 basic elements in creating Happiness

- Good physical and mental health
- A sense of virtue, knowledge-seeking intelligence

Good Health

- Family role
- Relationship within family
- Self Reliance

Warm Family

- Self-sufficient Community
- Cooperative community

Strong Community

Democratic Society with good governance

- Democratic Consciousness
- Good governance Society
- Societal unity

Balanced environment and ecosystem

- Safety of life and property
- Good quality environment
- Balanced ecosystem

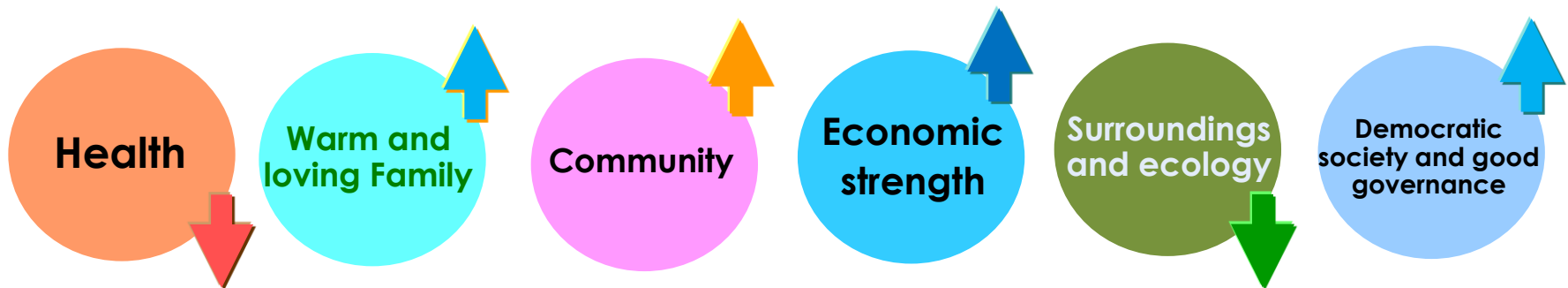
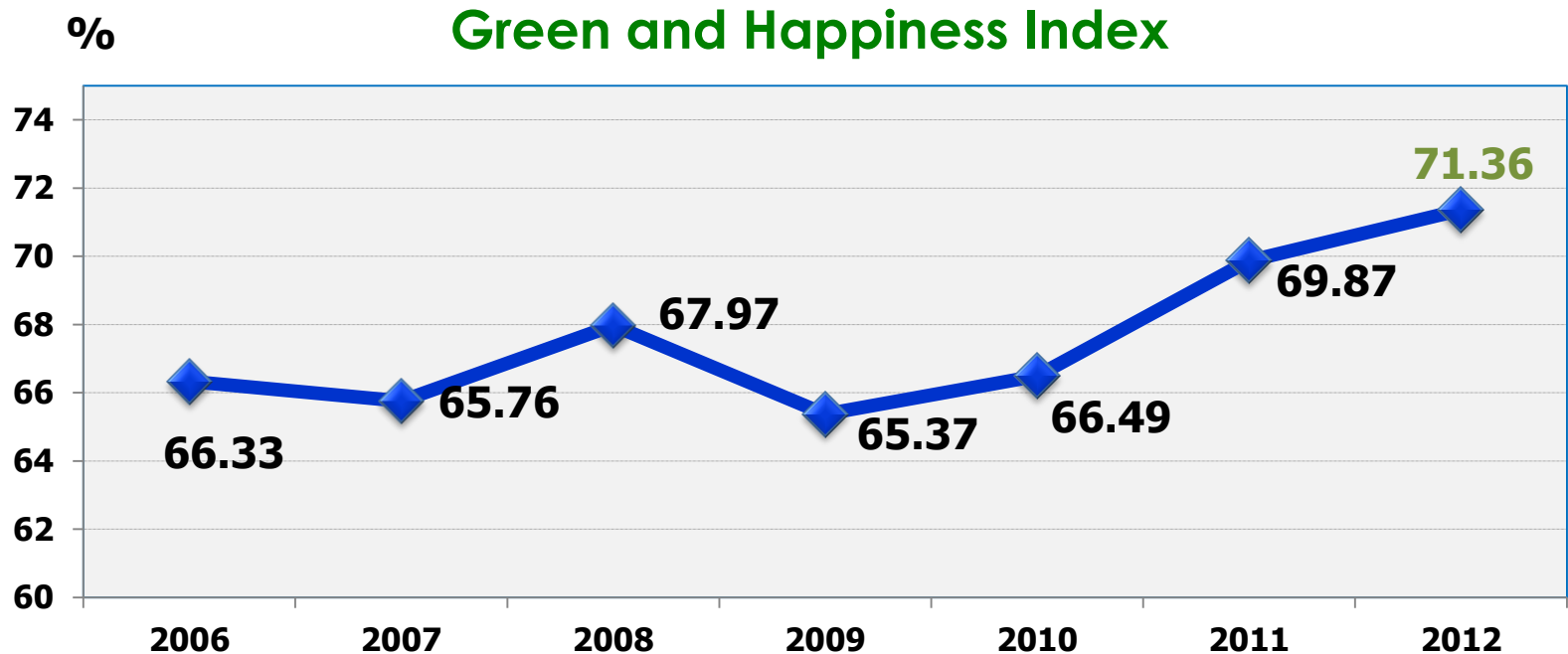
Strong and impartial Economy

- Honest livelihood
- Strong economy
- Economic impartiality

The Outcome of Development

Green and Happiness index has positive sign,

increased to moderate level , 2011 = 69.87 → 2012 = 71.36



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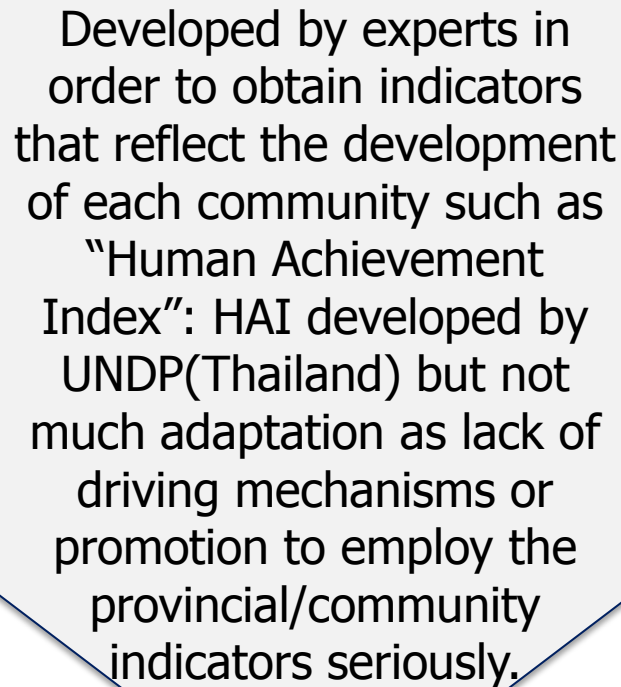
Problems and Obstacles in Collecting Data, Measuring and Recording

1. Unable to identify/locate data sources
2. Data sources scatter
3. Intermittent/ Discontinuous Data
4. Differences in annual reporting templates
5. Unreliable data
6. Lack of data usage throughout all levels of development
7. No units responsible for collecting the necessary data




Solutions

Provincial/Community Indicator Development



Developed by experts in order to obtain indicators that reflect the development of each community such as “Human Achievement Index”: HAI developed by UNDP(Thailand) but not much adaptation as lack of driving mechanisms or promotion to employ the provincial/community indicators seriously.

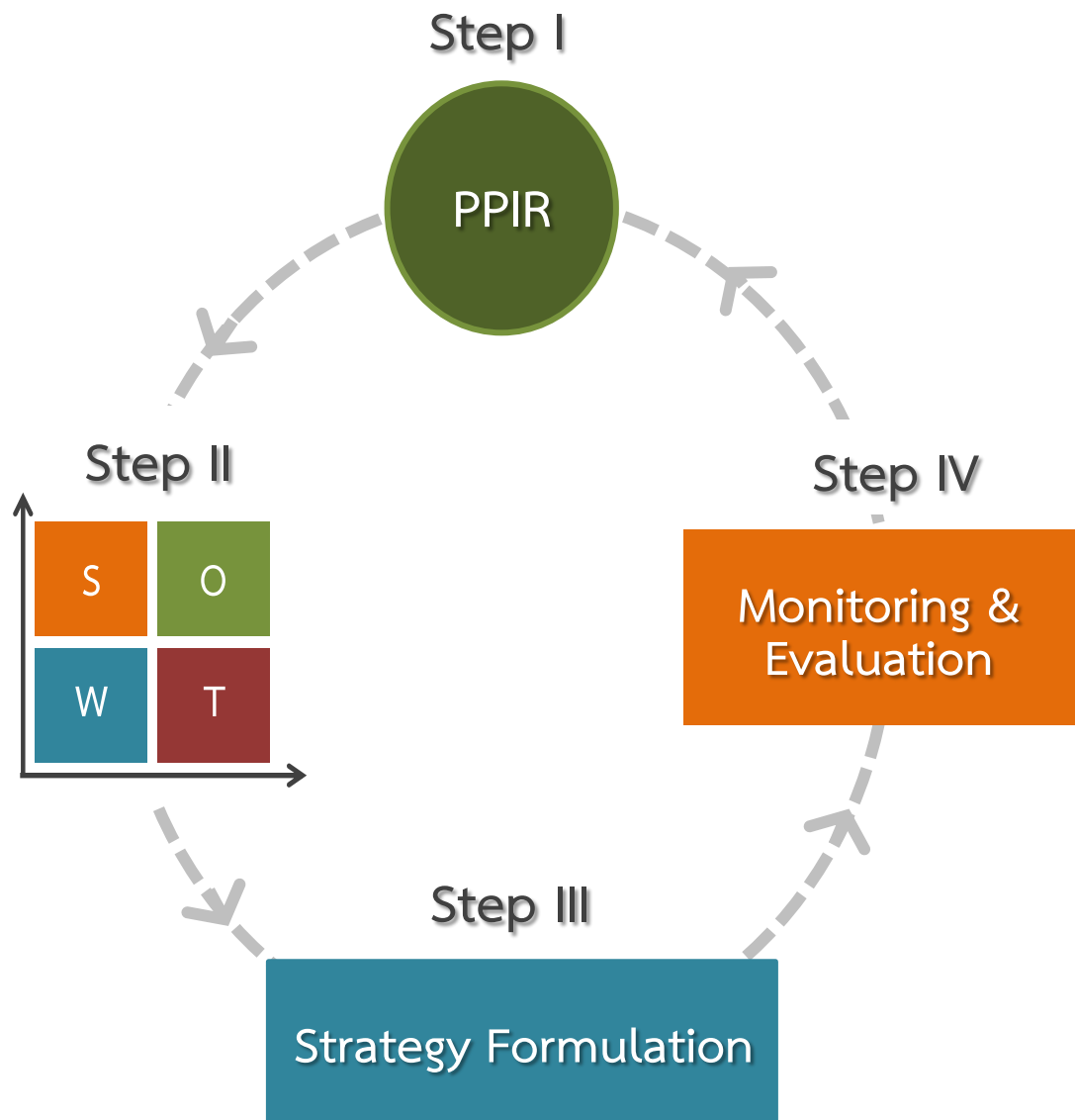


Give opportunity to local people in identifying the elements of development indicators of their own community. From that thought leading to attempts to develop ***District Happiness Index***

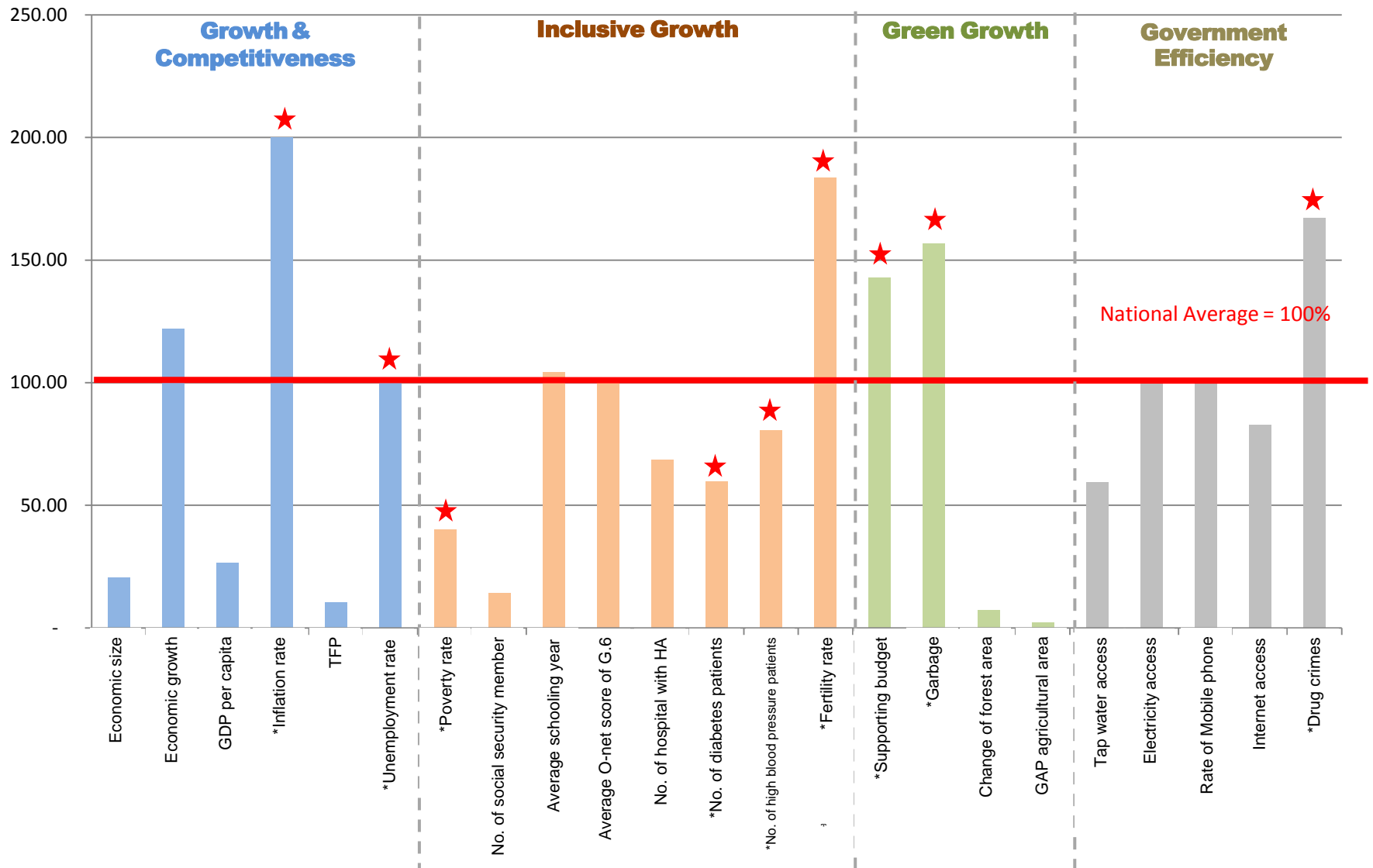
**Bottom-up Index
Development**

Provincial Performance Index/Ranking Development and Provincial Development Plan Review

1. Provincial Performance Index/Ranking – PPIR
2. SWOT Analysis
3. Strategy Formulation
4. Monitoring & Evaluation



Yasothorn Province : Overview ... Indicator Development



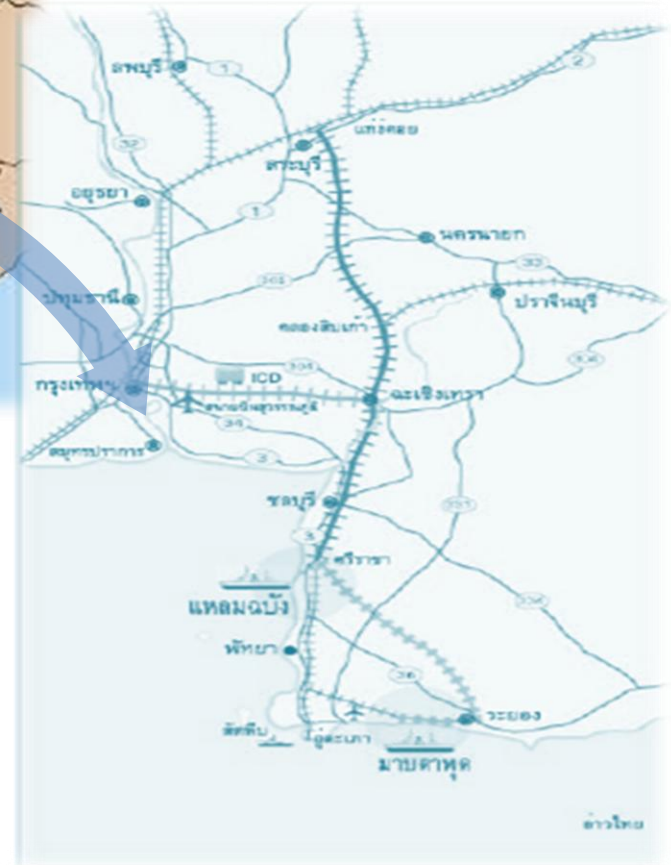
★ means the indicator is calculated in reverse. If the value is above the average line, the situation is good.

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Eastern Seaboard Development Project:
A case of Map Ta Phut



Background

Initiated in 2524 to create economic opportunity and systematically spread prosperity outside Bangkok by developing new manufacturing base and connecting to the global shipping route

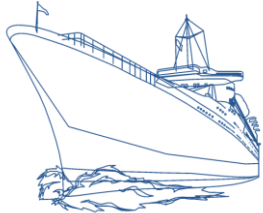
Targeted areas

The project covers 3 provinces including Chonburi, Rayong and Chacherngsao with mainly developed areas in Map-Ta-Phut and Lam Chabang, and later expanded the 2nd development phrase to 8 eastern provinces.



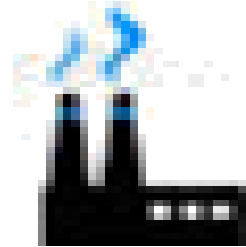
Development plan

Infrastructure



Deep sea port, industrial estates, roads, rails, reservoir, hose, electricity, ICT and community Housing etc.

Industrial development



Gas separation plant, petrochemical, automotive and electronics etc.

Social services



habitat, education and healthcare services etc.

Supportive measures



Investment promotion measures and environmental impact prevention etc.

Implementation

5th NESDP (1982-1986)

Eastern Seaboard Development Plan (1985) including EIA with Mitigation plan

At the same time introducing Environment development plan

10th NESDP (2008-2012)

Master plan of eco industrial town for long term solving system (2010)

**During the 2nd phrase,
there was no supervisory board
resulting in lacking of
overall evaluation process & tools**

**No further improvement
on plan and process**



Ambient Pollution control

Ministry of Natural resources and Environment

City planning

Ministry of Interior

Emission Pollution Control

Ministry of Industry

11th NESDP (2013-2017)

Eco industrial town development

Ministry of Industry

**Having monitoring system but lacking assessment system
on social and environment development plan**

**Lacking of participation
from all stakeholder in the community
Inefficient law enforcement
causing distortion during implementation**

Impacts

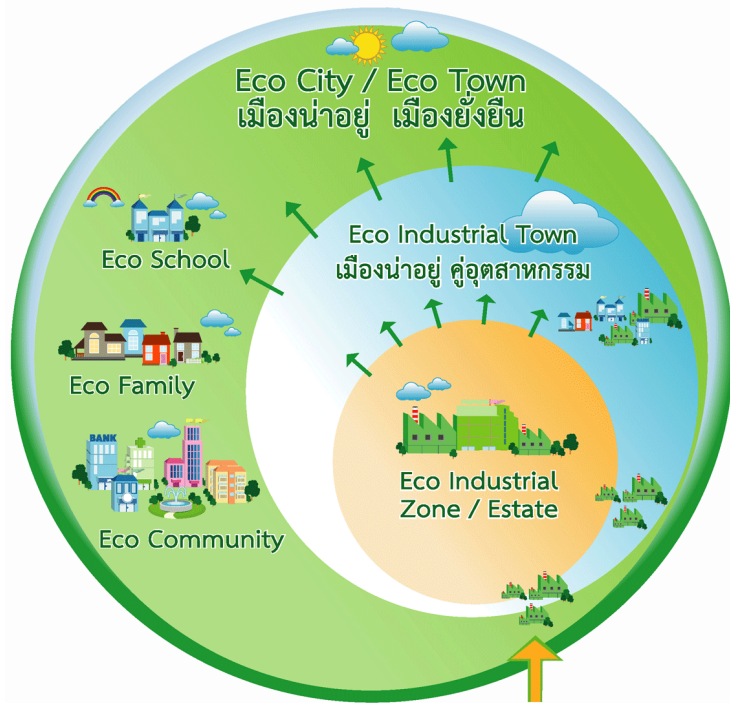
Pros

- Leap in industry and economic growth
- High employment and per capita income

Cons

- Environmental degradation particularly air pollution caused from some VOCs that is higher than the standard ie. benzene 1,2-Dichloride ethane and water pollution that is contaminated by heavy metals and volatile organic compounds
- Non-registered population leading to inadequate infrastructure social and health problems such as allergy and cancer, and poor quality of life
- Increasing government expense to address environmental and social impacts
- Limited industrial expansion in the areas
- Increasing conflict between community and industrial sector in the areas and other development districts
- Destroying public confidence leading to appeals to the Administrative Court

Ecological industrial City Development Guideline



1. City planning
2. Pollution control system (water, air, garbage, waste and effluent)
3. Pollution monitoring, checking and auditing system
4. Infrastructure system
5. Health, safety, and occupational health system
6. Education and R&D system
7. Information system

ที่มา: สอท. กรอ. กนอ และ สศช.

Green Factory

Factories adapting the concept of Industrial Ecology will exist both in the Eco Industrial Zone/Area, Estate, Eco City or Eco Town

Eco Industrial Zone / Estate

A form of industrial area development that unites all factories in the same area to one by depending on each other, on the environment, and on the local ecosystem.

Eco Family, Eco Community, Eco School

Surrounding community can include schools, houses, etc. that adopts the energy saving concept, worthwhile resource usage and the environmental – friendly consumption

Eco Industrial Town

Livable city that stands side by side with the industrial area, connecting the industrial area to the factories, agencies, local units, and surrounding communities, while maintain the balance among economy, society, and environment

Eco City / Eco Town

Livable and sustainable city where economy, society, and environment were built from the development of the industrial sector, tourism, service usage and other relating works that support each other.

แผนปฏิบัติการ (Action plan) เมืองอุตสาหกรรมเชิงนิเวศ ปี พ.ศ. 2556-2561

ปี 2556

- แต่งตั้งคณะกรรมการทั้งส่วนกลางและระดับพื้นที่ เพื่อดูแลและสนับสนุนการพัฒนา และประสานการสนับสนุนการพัฒนาสู่เมืองอุตสาหกรรมเชิงนิเวศ
- **จัดทำ Eco Industrial Town สำหรับพื้นที่มาบตาพุด จังหวัดระยอง**
- บูรณาการแผนงานและงบประมาณ ของหน่วยงานที่เกี่ยวข้องในการพัฒนาฯ ในเชิงพื้นที่ (5 มิติ)
- พัฒนานองค์ความรู้ และสร้างจิตสำนึกร่วมของผู้มีส่วนได้เสียถึงความจำเป็นในการพัฒนาในการพัฒนาอุตสาหกรรมเชิงนิเวศในระดับประเทศและระดับพื้นที่
- ประเมิน GAP ในการดำเนินงานตามคุณลักษณะอุตสาหกรรมเชิงนิเวศ 5 มิติ 22 ด้าน
- สนับสนุนและผลักดันให้โรงงานมีการปฏิบัติสู่อุตสาหกรรมสีเขียวอย่างต่อเนื่องและเข้มงวดกับโรงงานที่ปฏิบัติไม่ถูกต้องตามกฎหมาย อย่างน้อย 25%

ปี 2557

- บรรลุให้เป็นแผนพัฒนาของจังหวัด/พื้นที่ เพื่อให้เกิดความต่อเนื่องและเห็นผลในระยะยาว
- จัดสรรงบประมาณให้ท้องถิ่นที่แสดงเจตจำนงหรือมีแผนและโครงการการพัฒนาอุตสาหกรรมเชิงนิเวศ
- **จัดทำแผนการยกระดับโรงงานสู่ Eco Factory (5 มิติ 22 ด้าน)**
- สนับสนุนและผลักดันให้โรงงานมีการปฏิบัติสู่อุตสาหกรรมสีเขียวอย่างต่อเนื่องและเข้มงวดกับโรงงานที่ปฏิบัติไม่ถูกต้องตามกฎหมาย อย่างน้อย 50%

ปี 2558

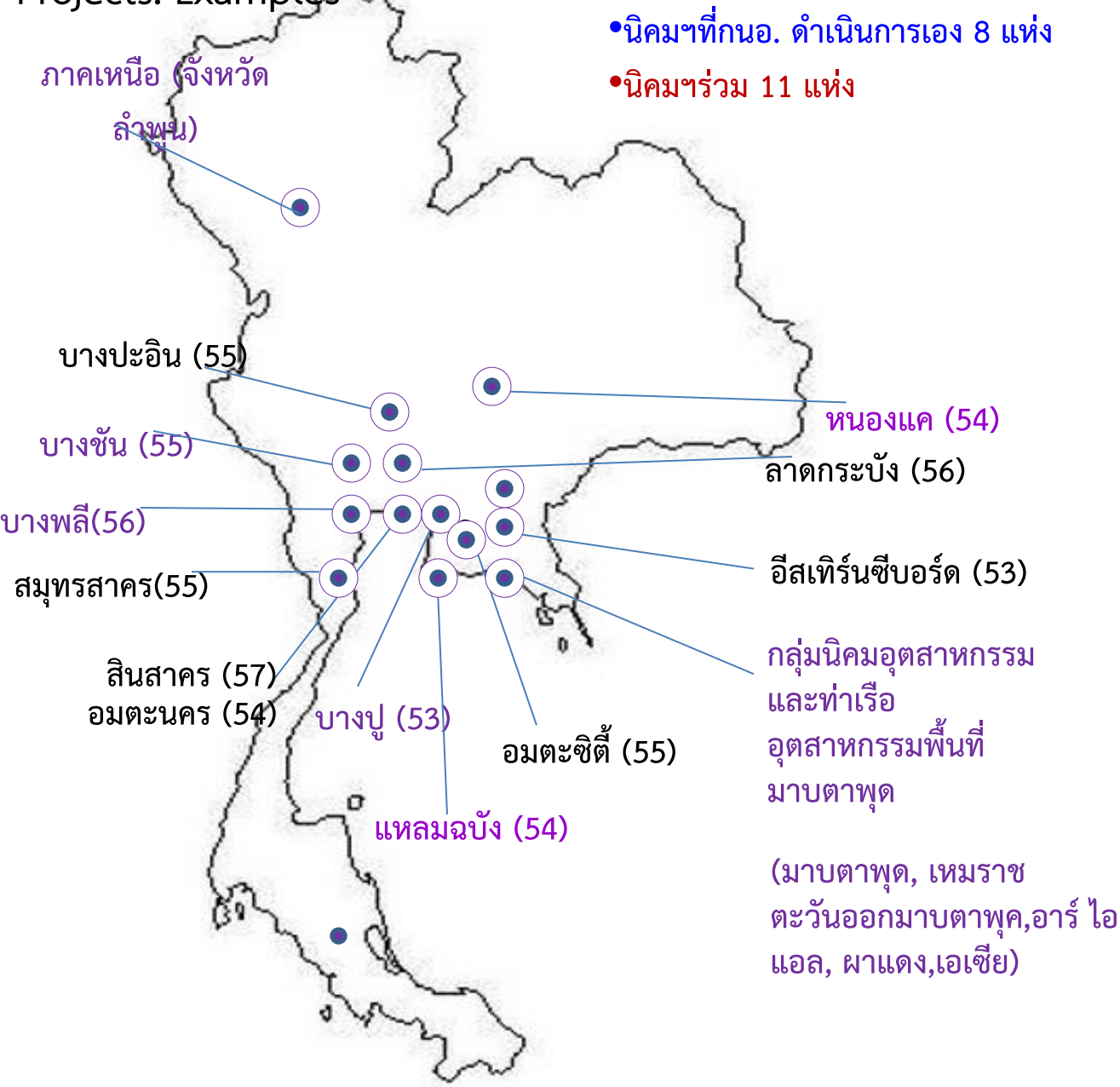
- สนับสนุนและผลักดันให้โรงงานมีการปฏิบัติสู่อุตสาหกรรมสีเขียวอย่างต่อเนื่องและเข้มงวดกับโรงงานที่ปฏิบัติไม่ถูกต้องตามกฎหมาย อย่างน้อย 50%
- ปรับปรุงกฎหมาย กฎระเบียบ ให้เอื้ออำนวยต่อการพัฒนา
- **ดำเนินการพัฒนาโรงงานสู่ Eco Factory และประเมินความก้าวหน้าของการดำเนินกิจกรรม**

ปี 2558-2561

- **นำเสนอและรายงานความก้าวหน้าต่อสาธารณะ**
- **ขยายผลการพัฒนา Eco Industrial Town ให้ครอบคลุมพื้นที่จังหวัดระยอง**
- พัฒนาระบบโครงสร้างพื้นฐานของเมือง และเพิ่มทางเลือกการคมนาคมเพื่อรองรับการพัฒนาเมืองอุตสาหกรรมเชิงนิเวศ / Logistics, การใช้พลังงานในพื้นที่, การจัดสรรน้ำ, การบำบัดและกำจัดมลพิษ

อก
ทส.
พณ.
รง.
มท.
ศธ.
สศช.
สภาอุตสาหกรรม

Projects: Examples



สถานภาพ
นิคมอุตสาหกรรม
ที่เข้าสู่การเป็นเมือง
อุตสาหกรรมเชิงนิเวศ
ปี 2553-2556 จำนวน
12 แห่ง และแผนปี 2557
จำนวน 3 แห่ง และกลุ่มนิคม



Eco Industrial Estate & Networks
Industrial Progress With Ecological Awareness



THANKS

www.nesdb.go.th

Back up

แนวคิดการติดตามและประเมินผล



Yasothon Province : Data Indicator review

Development Dimension	Indicator – Data and Supporting Reasons
Growth & Competitiveness	<ul style="list-style-type: none"> • Average income per head is 4 times lower than per capita income because most of the economic structure is in agricultural sector (25%) and they are old-fashion agriculture with high cost. • Income from the government's investment is 7,679.21 million baht (ranked 54th of the world) because there are a lot of provincial development budgets in various official sectors. Therefore, the economy is boosted. • Total Labor Productivity is 4 times lower than that of the country because labor force in agricultural sector lacks of knowledge and production technology. • Irrigation area is small, around 17% of the total agricultural area.
Inclusive Growth	<ul style="list-style-type: none"> • Doctors per population – Average ratio of doctors per population in the province is 1:6,419, lower than national's average ratio (1:2,893). • Poverty – Poverty ratio is 11%, higher than that of the country (7.9%).
Green Growth	<ul style="list-style-type: none"> • Forest area is only 10% of the total provincial area, lower than that of the national average, because forest encroachment for agriculture. • Alternative energy production is only 2%, lower than that of the national average. • GAP Agricultural area is lower than 1% of the country (GAP area is 8.2% of the total province's area), but organic rice is produced in 38,000 rai.
Government Efficiency	<ul style="list-style-type: none"> • Ratio of tap water access is lower than that of national average (not include tap water of Local Administrative Organizations). • Road networks are not in good condition and do not cover all the areas, which is the obstacle of goods transportation and people's travelling.

Yasothon Province : SWOT

S

- Geography, climate and local wisdom are appropriate for high-quality jasmine rice production.
- Famous community production is located. (traditional triangle pillow- “Morn Kwan Pa Kid”)
- Famous religious and cultural tourist attractions are located, especially “Boon Bang Fai” and “Boon Hae Ma Lai”)
- Labor are plenty which could serve the province’s jobs and be trained to be skilled labor.
- Yasothon people’s way of life is strong.

W

- Average income per head is low.
- Central agricultural market is not available.
- Irrigation area does not cover all the agricultural area.
- Natural soil fertility of agricultural area is low.
- Tourism facilities are not adequately provided at the tourist attractions.
- Roads in rural area are not in good conditions.
- Location of the province does not support industrial expansion.

O

- The 11th Plan encourages;
 - Transportation networks - Agricultural zoning
 - Water management - Connection of function and area
- AEC expands many industrial markets.
- There is a chance of being food production base for regional food security.

T

- Influence of foreign culture change people and community’s peaceful way of life .
- Strong trend of capitalism encourages local people to sell their land.
- People tend to change their land use by growing inappropriate crops.
- Climate change increases risks of natural disasters, such as, flood, epidemics and other serious disasters.

Yasothorn Province :

Vision : Yasothorn, land of I-San way of life and international organic agriculture

Strategy	Activity	Project/Program
Strategy 1 : Encourage full cycle of safe and organic agriculture	<ol style="list-style-type: none"> 1. Improve efficiency of agricultural and agro industrial production. 2. Promote international marketing of agricultural product. 	1. Promoting and developing capacity of full-cycle of safe and organic agriculture program
Strategy 2 : Encourage local wisdom, culture, tradition, trade and tourism	<ol style="list-style-type: none"> 1. Promote and develop I-San cultural and traditional tourist attractions. 2. Promote and develop local wisdom to creative economy. 3. Improve capacity of tourism and service infrastructure. 	1. Tourism and service infrastructure development program
Strategy 3 : Improve quality of life and encourage family and community strength	<ol style="list-style-type: none"> 1. Improve quality of life and strengthen community. 2. Increase capacity of internal security and safety of life and property. 3. Develop and improve quality of good governance. 	<ol style="list-style-type: none"> 1. Internal security and safety of life and property program 2. Integrated social and poverty problem-solving program
Strategy 4 : Conserve, rehabilitate and develop natural resource and environment	<ol style="list-style-type: none"> 1. Increase efficiency of integrated water management. 2. Increase efficiency of natural resource and environmental management. 	1. Natural resource and environmental management program