

# **Role of Policy Coordination in Large-Scale Infrastructure Development:**

## **The Case of Eastern Seaboard Development in Thailand**



**Policy Formulation in Developing Countries**  
GRIPS Development Forum

# Highlights

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1. Basic features of large-scale infrastructure development
  - Main characteristics, issues, govt's role
2. Case Study: Eastern Seaboard Development in Thailand
  - What are the factors behind its "success"? --
3. Summary

# 1. Basic features of large-scale infrastructure development

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What are the main characteristics of large-scale infrastructure development?

- Capital intensive investment
- Extend over many years
- Economy of scale
- Network effects
- Linkage effects
- Various stakeholders with different interests
- Advanced technical expertise

# Basic features of large-scale infrastructure development

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What are the issues related with large-scale infrastructure development?

- Investment selection and resource allocation
- Implementation
- Operation and maintenance
- Recurrent financing
- Social and environmental considerations
- External finance and technical assistance

# Basic features of large-scale infrastructure development

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What is the government's role in large-scale infrastructure development?

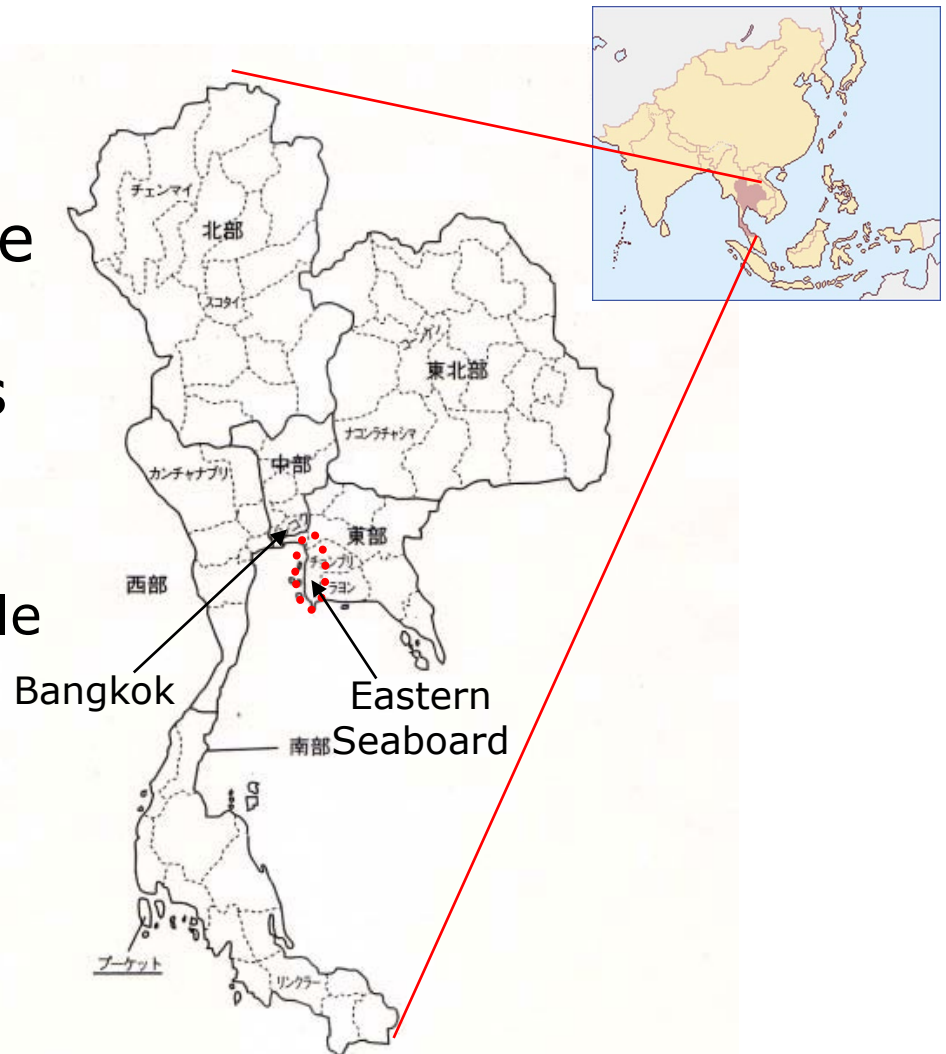
- Planning and budget allocation
- Coordination
- Resource mobilization
- Monitoring and evaluation
- Institution and capacity building
- Aid/donor management

## 2. Case Study: Eastern Seaboard Development -- What are the factors behind its “success”? --

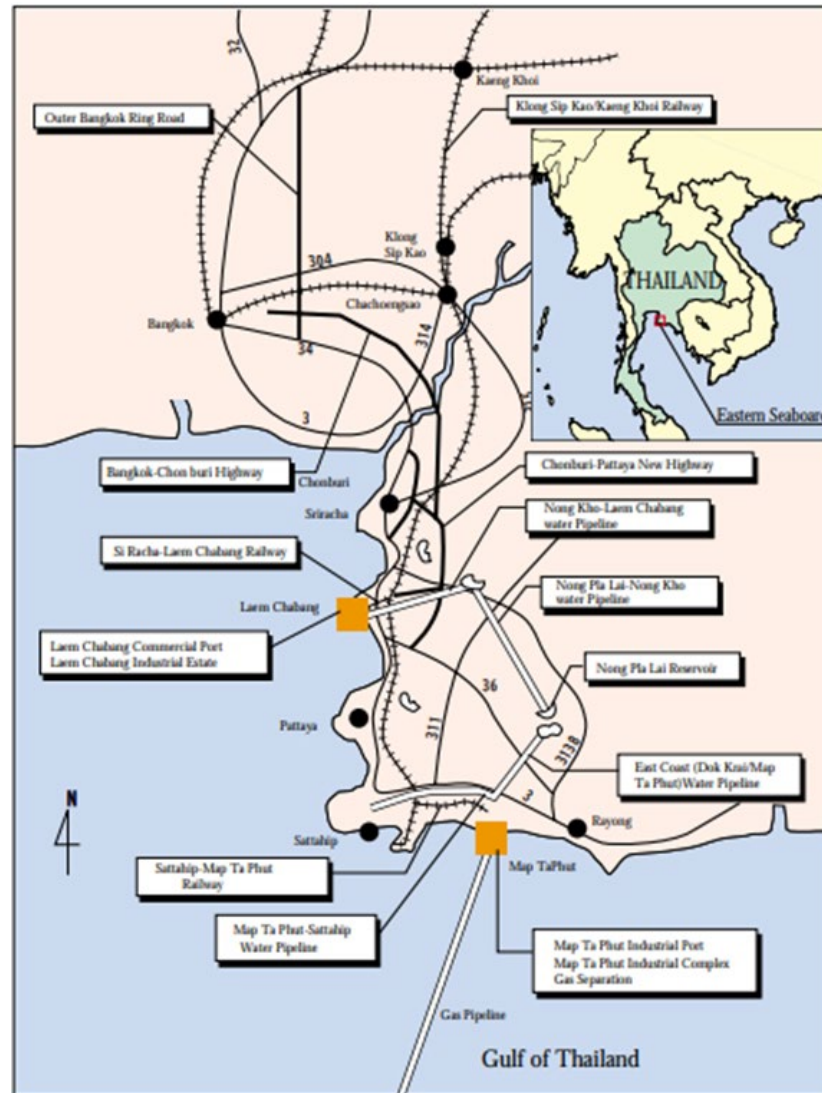
### <Project Scope>

Development of special integrated economic zone with diverse types of capital intensive projects

- Two industrial complexes (petrochemicals, automobile manufacturing, electronic consumer goods etc.)
- Two deep seaports
- Associated infrastructures (water resources, roads, railway system etc.)



# Case Study: Eastern Seaboard Development



Source: JBIC (1999) Eastern Seaboard Development Plan Impact Evaluation

# Case Study: Eastern Seaboard Development

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## < **Leam Chabang Industrial Complex** >

- Initially planned as an export location for light industry (apparel and shoes etc.) and for small and for SMEs
- In actuality, it became the base for machinery industry
- Concentration of wide spectrum of companies realized

## < **Map Ta Phut Industrial Complex** >

- Heavy chemical industry became the core sector, mainly in response to domestic demand (utilizing natural gas resources in the Gulf of Thailand )

**→ Today, both complexes have developed to become export base for machinery and supporting industries**



# Case Study: Eastern Seaboard Development

Current Leam Chabang Commercial Port (Photo credit: JICA)



Current Map Ta Phut Industrial Complex (Photo credit: JICA)



Leam Chabang Area in 1980 before the development  
(Photo credit: Professor Yasutami Shimomura, Hosei University)



Construction site of Map Ta Phut  
Industrial Complex in early 1990s (Photo credit: JICA)

# Case Study: Eastern Seaboard Development

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## < Thailand's industrial strategy >

- To transform from import substitution strategy to export oriented industries promotion
  - External factors
  - Domestic factors

## <Development Plans>

- Regarded as a high priority in the 5th (1982-1986) and the 6th (1987-1991) National Economic and Social Development Plans
- Late 1970s: basic idea of the plan formulated
- 1982: master plan completed

# Case Study: Eastern Seaboard Development

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## <External financing>

Key investor countries: Japan, the EU and the US

→ Japan provided yen loan assistance to 16 projects, amounting to 179 billion yen in total (loan commitment amount)

Japan also provided technical cooperation (assisted preparation of feasibility studies, master plans, detailed design, and dispatched experts) and grant aid

# Case Study: Eastern Seaboard Development

## < Japan's yen loan assistance >

Map Ta Phut area Development	1. Map Ta Phut Industrial/Urban Complex Project 2. Map Ta Phut Port Project 3. Gas Separation Plant Project
Laem Chabang area Development	4. Laem Chabang Port Project 5. Laem Chabang Industrial Estate Project
Water Resource Development/ Water Pipeline Project	6. Nong Pla Lai Project 7. East Coast (Dok Krai - Map Ta Phut) Water Pipeline Project 8. Map Ta Phut - Sattahip Water Pipeline Project 9. Nong Kho-Laem Chabang Water Pipeline Project 10. Nong Pla Lai - Nong Kho Water Pipeline Project
Railway Project	11. Si Racha - Laem Chabang Railway Project 12. Sattahip - Map Ta Phut Railway Project 13. Klong Sip Kao - Kaeng Khoi Railway Project
Road Project	14. Chonburi - Pattaya New Highway Construction Project 15. Bangkok - Chonburi Highway Construction Project 16. Outer Bangkok Ring Road (East Portion) Construction Project

Source: JBIC evaluation report "Eastern Seaboard Development Plan Impact Evaluation"

# Case Study: Eastern Seaboard Development

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## < Japan's technical cooperation >

- Water Resource Development: 3 Feasibility Studies, 1 Detailed Design (1980-1983)
- Seaport Development: 2 Master Plans, 2 Feasibility Studies (1982-1989)
- Industrial Development: 1 Master Plan, 2 Feasibility Studies (1983-1988)
- Investment Promotion: 1 Investment Promotion Advisor (1986-1988)
- Environmental Protection: 1 Grant Assistance (1984)

# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

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### <Main features of the plan>

- First forward looking, strategic initiative aiming for robust economic takeoff
- One of the first regional development initiatives with “*intersectoral*” and “*programming*” approach to planning

### <Political and economic situation>

- Political situation: stable
- Economic condition: highly volatile  
-- from recession to economic boom

# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

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### <Major challenges of the plan>

Lots of controversies from the beginning  
(due to serious economic recession in the early 80s)

- Policy level: priority on longer-term economic development or macroeconomic stability?
- Project level: postpone, downsize or shelve projects based on thorough economic analysis?
- Donor assistance: difference of opinion among major donors (including WB and Japan) on project scope and implementation schedule

# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

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### <Leadership>

Political leader (Prime Minister) had sound vision, strong sense of commitment and dedication

- Created centralized administrative framework exclusively for the plan
- Placed confidence in technocrats and delegated authority to them
- Placed great importance to pursue pragmatic economic outcomes by forcing back political pressures
- Prime Minister himself functioned as a “balancer”



**Prime Minister Prem  
43<sup>rd</sup> – 45<sup>th</sup> Government**

12 March 1980 - 19 March 1983

30 April 1983 - 5 August 1986

5 August 1986 - 29 April 1988

<http://www.thaiembdc.org/bio/pms/pmlist.htm>



# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

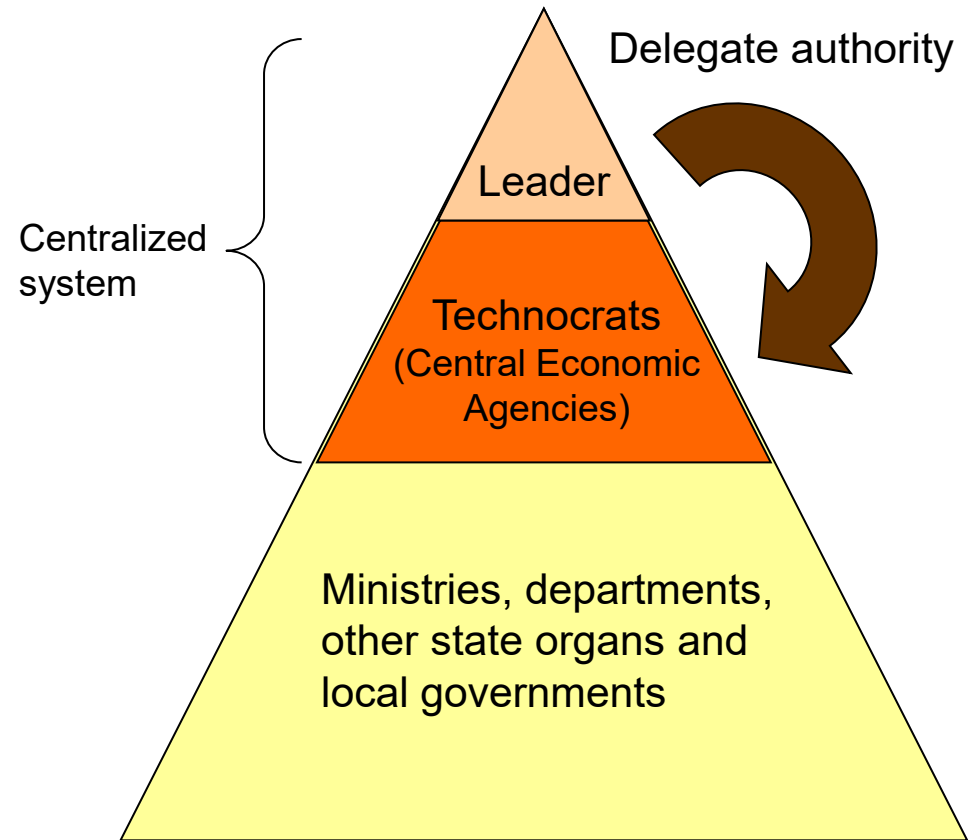
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### <Thailand>

esp. in 1980s

#### ◆ “Bureaucratic polity”

Centralized system  
managed by elite  
technocrats who were  
delegated authority  
from political leaders



# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

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### <Technocrats>

Highly motivated, competent technocrats functioned as strong support arms

- Central economic agencies attracted many elites as place for employment
- Competent technocrats were selectively picked out to pursue the plan
- Technocrats took pride in undertaking the top priority national plan
- Strong ownership existed

# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

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### <Central economic agencies (esp. NESDB)>

The National Economic and Social Development Board was referred to as the “technocrat center” for its strong power

- Obtained high credibility from the Prime Minister
- Consisted of competent technocrats
- Assigned as the Secretariat for a number of major national committees
  - ➔ Acted as *influential liaison* to get the plans and policies into action

# Case Study: Eastern Seaboard Development

## Major characteristics to be noted

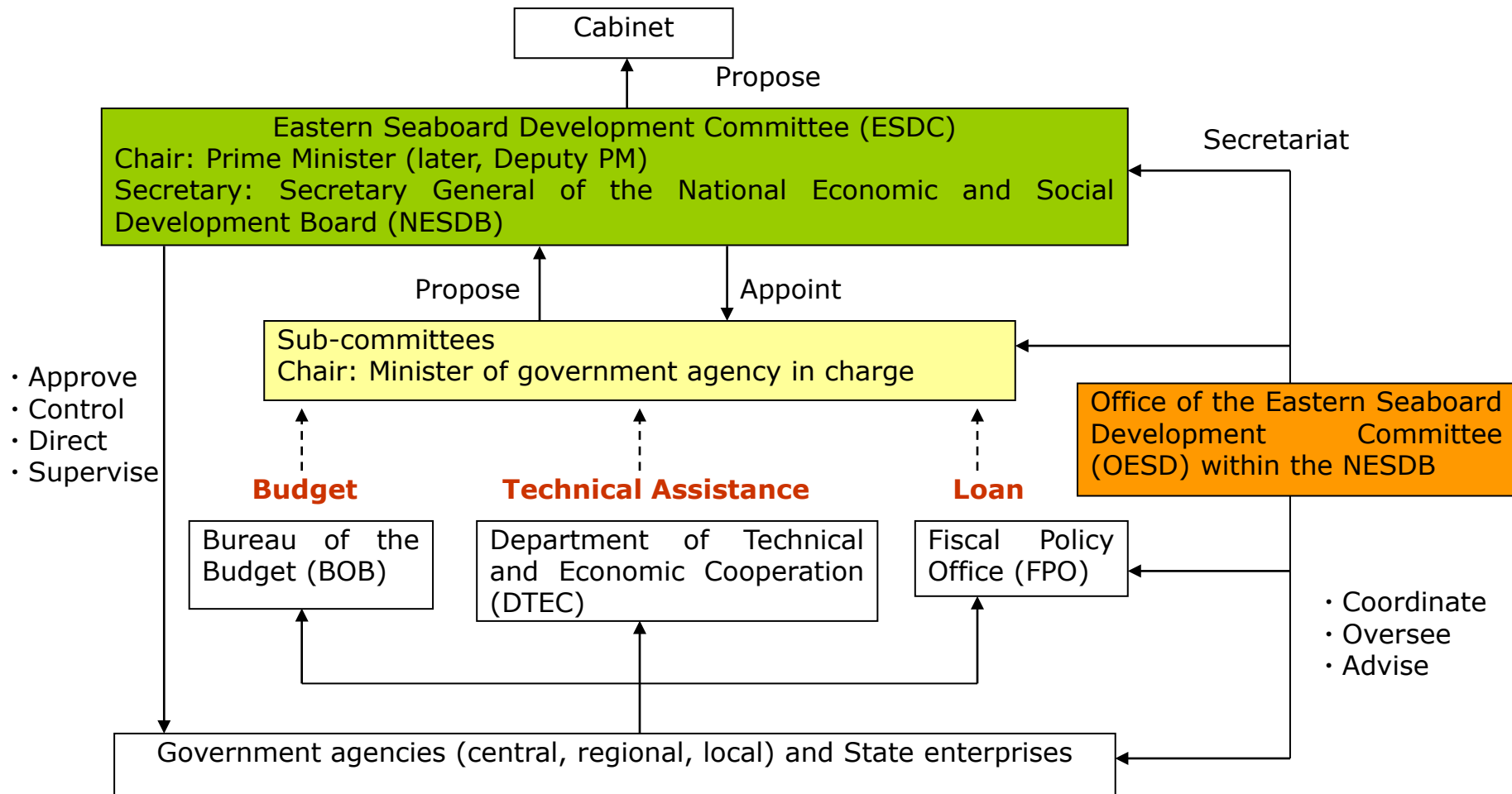
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### <Overall institutional settings>

Created special coordination and decision making mechanisms exclusively for the plan

- Cabinet level national committee: Eastern Seaboard Development Committee (ESDC)
- Sub-committees
- Secretariat: Office of the Eastern Seaboard Development Committee (OESD) within the National Economic and Social Development Board (NESDB)

# Overview of the coordination and decision making mechanisms



Source: Author -- drawn upon provisions from the Regulations of the Office of the Prime Minister Governing the Eastern Seaboard Development (1985) and information provided by NESDB, TICA, BOB, FPO, PDMO and MOI to the GRIPS team

# Case Study: Eastern Seaboard Development

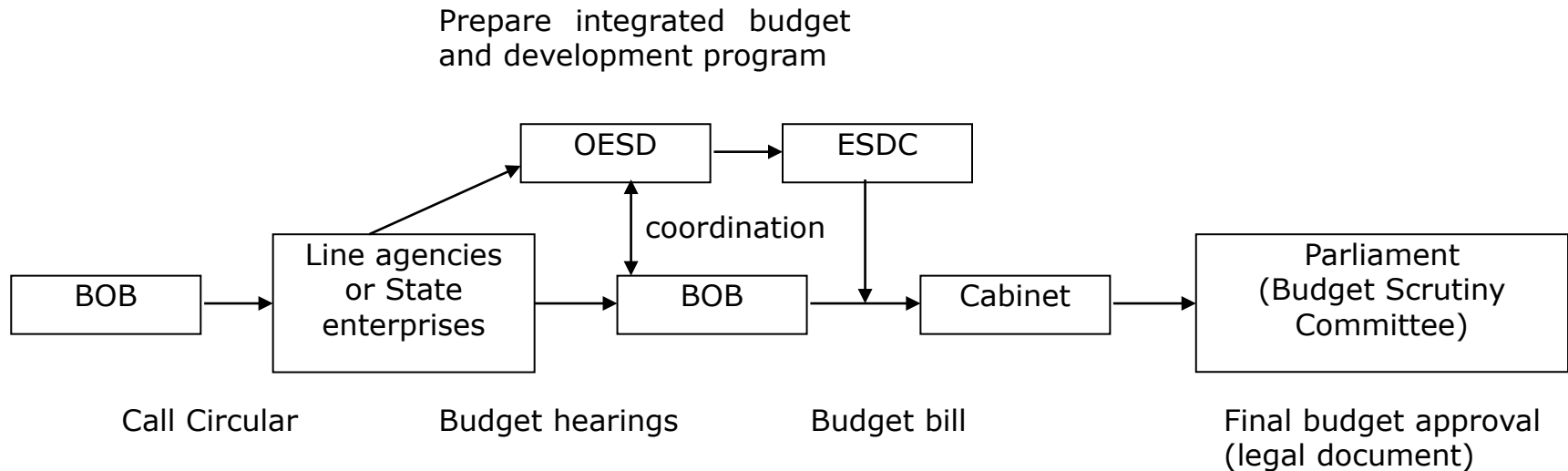
## Major characteristics to be noted

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### <Coordination features>

- Highly centralized mechanism
  - policy issues: top-down approach,  
technical issues: bottom-up approach
- De facto “fast track” process
- Multilayered, check and balance function incorporated
- Mechanism to pursue “strategic use of donor assistance” incorporated
  - pragmatic, independent judgment possible

# Coordination related with annual budget approval process



BOB: Bureau of the Budget

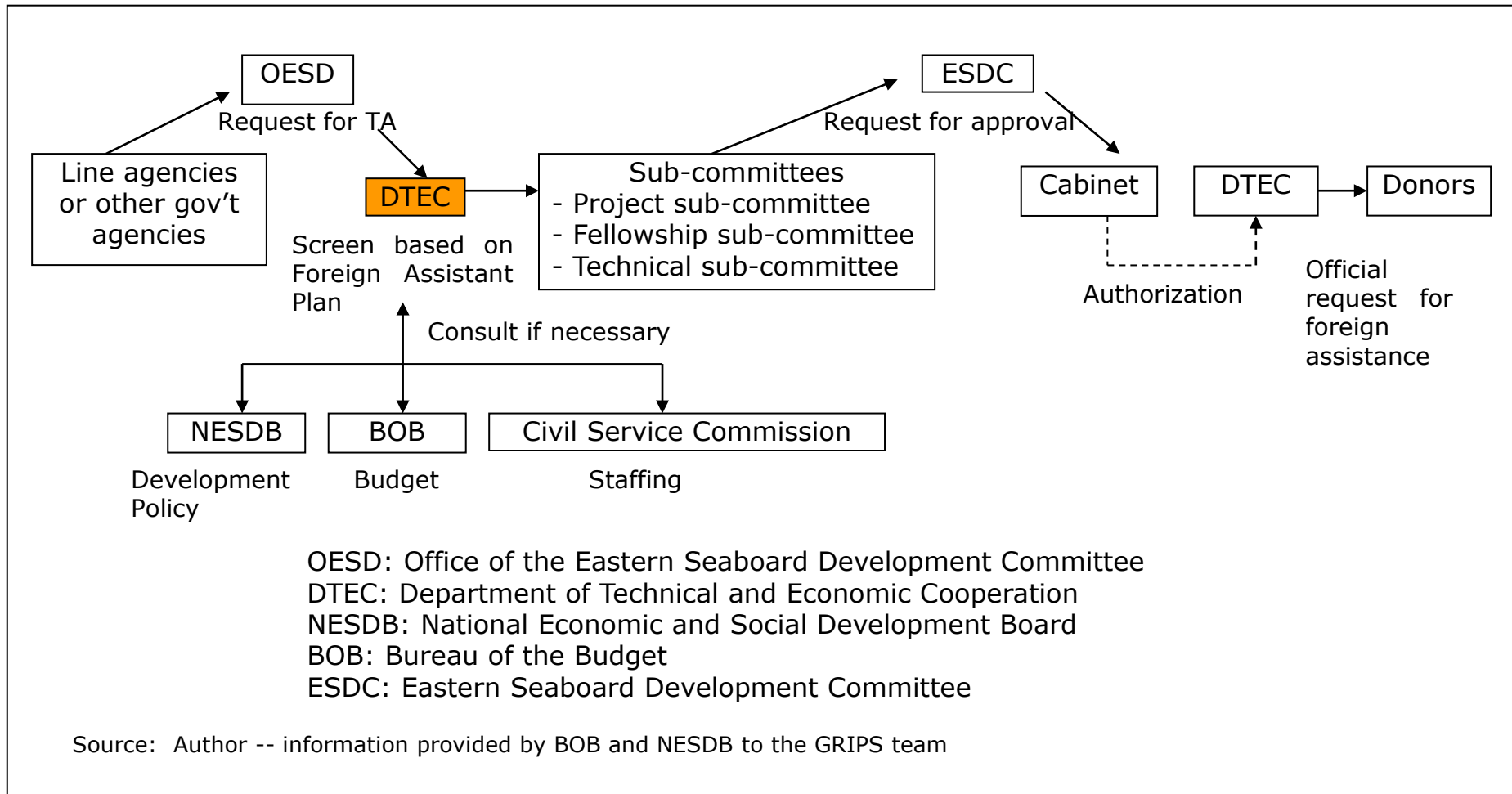
OESD: Office of the Eastern Seaboard Development Committee

ESDC: Eastern Seaboard Development Committee

Source: Author -- information provided by BOB and NESDB to the GRIPS team

- “Intersectoral” and “programming” approach also reflected in the budget process
- “Check and balance” function incorporated in the system

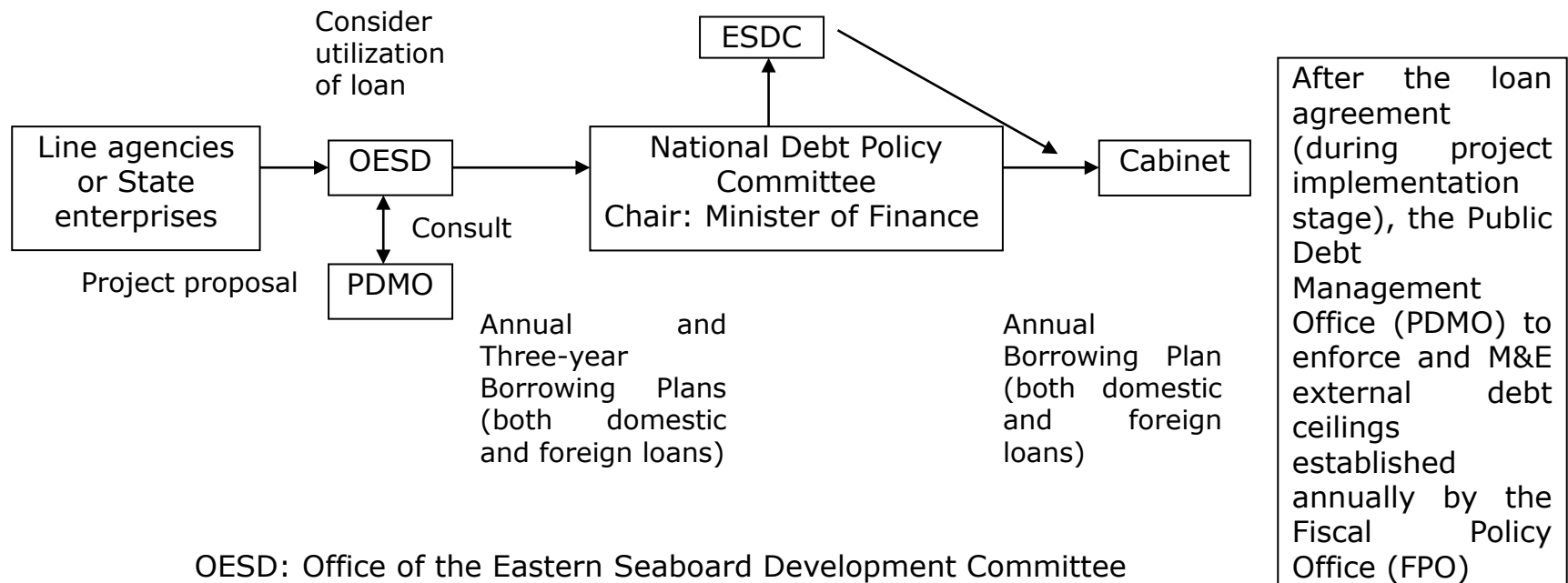
# Coordination related with technical assistance approval process



- “Check and balance” function incorporated in the system
- Mechanism to pursue “strategic use of donor assistance” incorporated → role of DTEC as a focal point



# Coordination related with loan approval process



OESD: Office of the Eastern Seaboard Development Committee  
 PDMO: Public Debt Management Office  
 ESDC: Eastern Seaboard Development Committee  
 FPO: Fiscal Policy Office

\* PDMO was formed after 1999 through transfer of divisions and units from the FPO and the Comptroller General's Department to ensure coherent public debt management under one agency.

Source: Author -- drawn upon provisions from the Regulations of National Borrowing (1985) and information provided by NESDB, FPO and PDMO to the GRIPS team

■ "Mechanism to pursue "strategic use of donor assistance" incorporated

# Case Study: Eastern Seaboard Development

## External factors and other considerations

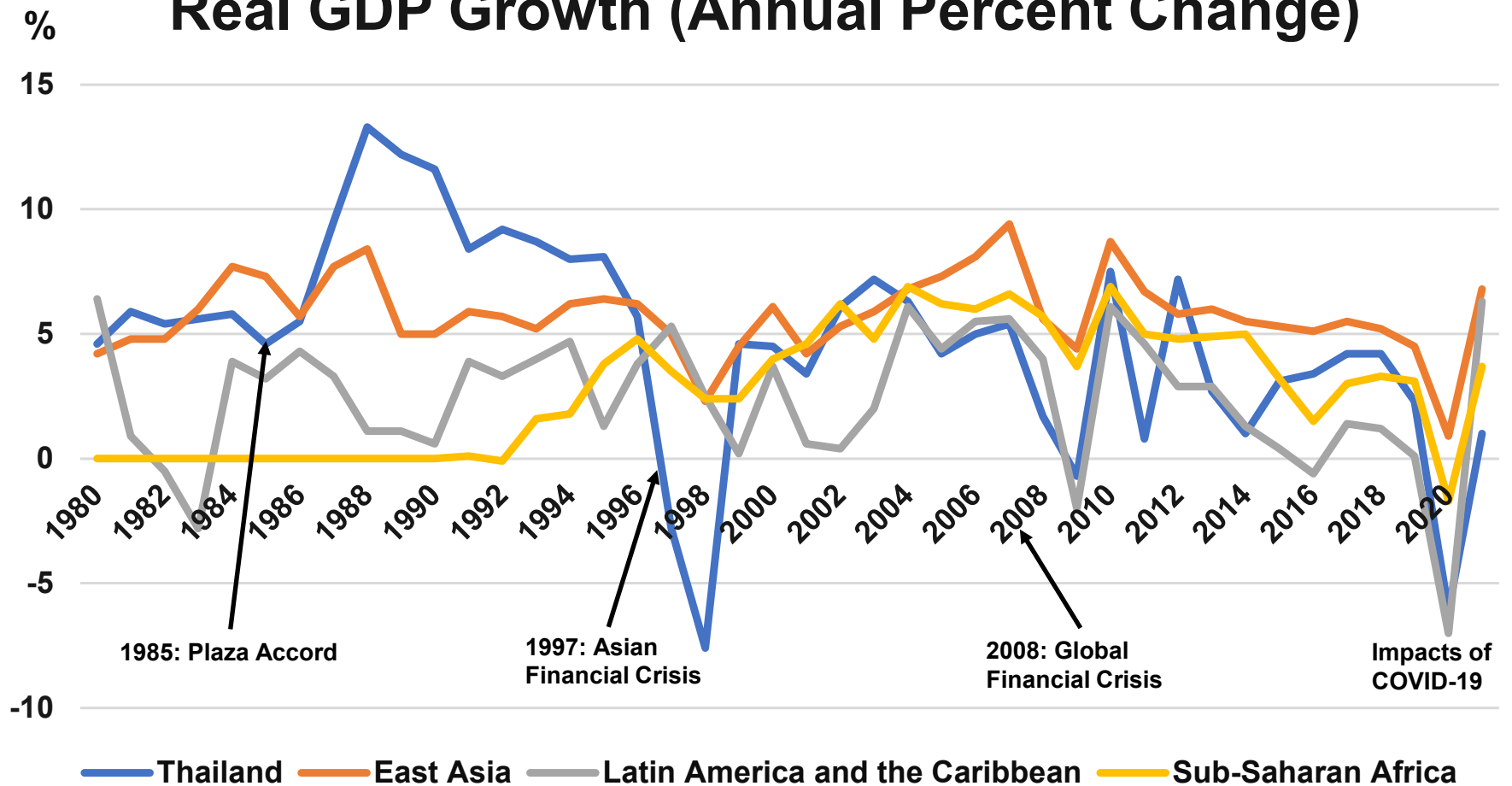
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### <External factors>

- Favorable international economic conditions
  - ➔ The significant impact of the Plaza Accord in 1985

Thai gov't was capable of taking full advantage of these positive external factors by utilizing the existing coordination mechanisms guided by the strong and effective leadership with the support of competent technocrats

# Real GDP Growth (Annual Percent Change)



Note: No data between 1980 and 1990 for Sub-Saharan Africa

(Source) Elaborated by the author, based on the IMF World Economic Outlook

# 3. Summary

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## <What are the factors behind the "success"?>

- Strong and effective leadership to ensure the public's interest -- leadership mattered especially at the time of structural transformation
  - Competency of technocrats
  - Powerful central economic agencies (esp. NESDB)
  - Special institutional settings
  - Functioning coordination mechanisms
  - External factors
- ➔ Synergetic effects of each "factor" contributed to push forward the development

# Important Issues to be Considered

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- Researchers and journalists addressed two major concerns about the Eastern Seaboard Development
  - Drastic changes that local people had to face in their traditional life patterns
  - Impacts on the natural environment (such as air pollution in Map Ta Phut Industrial Complex)
- ➔ Thai gov't at the time were aware of these issues but shared a recognition that the situation was not serious.

# Impacts on Local Communities

- Employment generation and increase of per capita income in three Eastern Seaboard Provinces

	Average per capita income of 3 provinces on the Eastern Seaboard	Average of per capita income of the Entire Country	Eastern Seaboard / Entire Country
1990	70,000 baht	35,000 baht	x 2.0
1996	138,000 baht	50,000 baht	x 2.76

Source: JICA/OECF Joint Evaluation on Eastern Seaboard Development Program

- Influx of population into the Eastern Seaboard

Population Growth Rate (annual average)

	Nationwide	Bangkok	Eastern	Central	Western	Northeastern	Northern	Southern
1981-86	1.9%	2.9%	2.2%	1.1%	1.6%	1.7%	1.4%	2.5%
1986-91	1.5%	2.6%	2.1%	1.3%	0.8%	1.3%	1.1%	3.6%
1991-96	1.4%	0.6%	2.3%	0.7%	1.9%	1.4%	2.0%	1.0%

Source: JBIC Eastern Seaboard Development Plan Impact Evaluation

- Increasing demand for public services

- Local government endeavored to ameliorate social services, such as primary school and primary health care, responding to rapid increase in the population.
- However, due to some difficulties, such as budget constraints, local government could not afford to respond all the increased demands for public services.

Source: JBIC Eastern Seaboard Development Plan Impact Evaluation

**THE END**

# Topics for Discussions

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- Please share experiences of (large-scale) infrastructure development in your country.
  - What would be important factors to facilitate infrastructure development which involves many stakeholders?
  - What are possible obstacles to plan, prepare, implement and operate and maintain infrastructure development projects?
- Do you think foreign development partners can play important role to facilitate infrastructure development?
  - What would be key factors for development partners to provide effective assistance in infrastructure development?