

Enhancing Infrastructure Development for Thailand's Future Growth

Thai - Chinese Business Forum 2015 17 December 2015

By Dr. Porametee Vimolsiri Secretary-General National Economic and Social Development Board of Thailand (NESDB)

Macro Economic View

Infrastructure Investment Plan

Transport Infrastructure Development Directions

Energy Infrastructure Development Directions

Overall: During the 1st Plan-2013, Thai economy grew by 6.1 percent annually on average. Subprime crisis But the growth rate slows down and becomes more volatile over time. Flood Political protests %YOY GDP growth (CVM %) Pro-cyclical interventions 7.5 7.3 8.7 8.0 8.1 8.4 12 6.3 4.2 5.0 5.4 5.7 4.6 4.5 3.4 6.1 9 9.2 2.8 6 1.7 0.8 0.9 7.2 -0.7 3 -2.8 0 -3 Financial Crisis -7.6 Flood -6 MEL DIT CRUNCH -9 Financial crisis 1997 Crisis -12 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 Plan 11 Plan 7 Plan 8 Plan 9 Plan 10 (1992 - 1996)(1997-2001)(2002-2006)(2007 - 2011)(2012 - 2014)GDP (CVM %) 7.9 0.4 5.8 3.0 3.7 Total investment 9.6 -13.1 10.3 1.9 2.3 (CVM %) Private (CVM %) -13.9 2.8 7.4 13.3 3.1 Public (CVM %) 18.5 -7.8 3.6 -0.8 0.4 Private consumption (CVM %) 1.9 7.8 1.1 5.6 2.6 Government expenditure 3.3 8.7 7.3 4.5 4.6 (CVM %) 0.2 9.2 8.7 8.6 5.3 Export value (%) Source: NESDB

The Thai economy in 2014 grew only by 0.9 percent.

• Global economic slowdown

• Export price decline (Rice -25.8% Rubber -26.3%)

(NICE -25.070 NUDDEI -20.570)

• Relative cost between regions and exchange rate change

• Export value declined by 0.3 percent



Impact from political situations on

• Tourism sector

(From 26.5 to 24.8 mil)

- Household & business
 confidences
- Investment promotion
- Budget disbursement

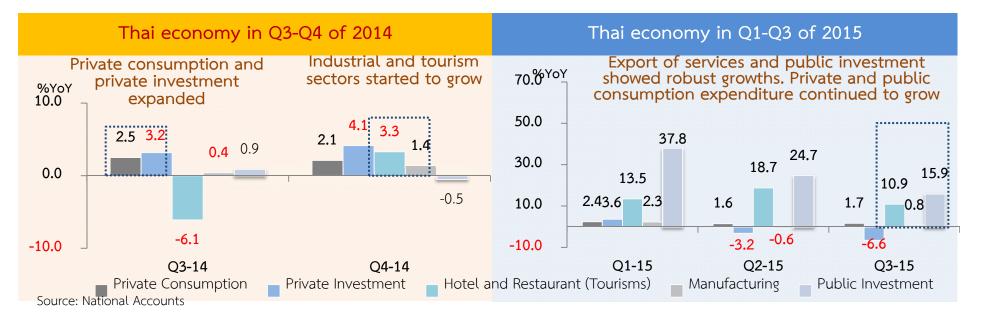
- Decline in Agricultural prices
- Low income from export



Readjustment of domestic car market as the impulses from FTCBS faded out (From 1.29 Mil to 0.78 Mil units)



Nevertheless the economy started to recover in Q2 of 2014



				GDP Grow	th (%)					
	2014			2014				20	15	
	2014	Q1	Q2	Q3	9M	Q4	Q1	Q2	Q3	9M
GDP (%YoY)	0.9	-0.4	0.9	1.0	0.4	2.1	3.0	2.8	2.9	2.9
GDP (%QoQ sa)	-	-0.7	0.7	0.9	-	1.2	0.3	0.3	1.0	ز

Global economy in Q3 of 2015 faced more constrains that led economy and export in many countries slowed down. However, Thai economy expanded well, following higher public disbursement and strong tourist growth.

-			compare with previous rate in several quarters.	,	ntries has declined further ailand and Vietnam)
		GDP growt	h (%YoY)	Export gro	wth (%YoY)
Country		201	15	20)15
	Q2		Q3	Q2	Q3
USA	2.7	2.0	6 Quarters, since Q1/14	-5.7	-7.8
China	7.0	6.9	26 Quarters, since Q1/09	-2.8	-6.1
Hong Kong	\$ 2.8	2.3	5 Quarters, since Q2/14	-1.9	-4.1
India	.0	n.a.	n.a.	-17.0	-18.7
Indonesia	4.7	4.7	n.a.	-11.7	-16.3
South Korea	* • * 2.2	2.6	n.a.	-7.2	-9.5
Malaysia	4.9	4.7	9 Quarters, since Q2/13	-14.8	-17.0
Philippines	5.6	n.a.	n.a.	-8.3	-11.2
Singapore	<u>©</u> 2.0	1.4	25 Quarters, since Q2/09	-14.8	-17.2
Taiwan	* 0.5	-1.0	24 Quarters, since Q3/09	-9.8	-13.9
Thailand	2.8	2.9	n.a.	-5.5	-4.7
Vietnam	★ 6.4	6.8	n.a.	9.3	9.4

Source: CEIC, Collected by NESDB

Thai economic outlook for 2015 – 2016

 Thai economy in 2015 is expected to expand by 2.9 percent, improving from 0.9 percent in 2014.

Thai economy in 2016 is forecasted to grow by 3.0 − 4.0 percent, driven mainly by private consumption and public investment as well as a pick up in exports following a global recovery. Headline inflation is expected to lie between 1.0 − 2.0 percent. Current account balance will be in a surplus of 5.7 percent of GDP.

Economic Projection for 2015 (Nov 17, 2015)

Key Indicators	2013	2014	Projection		
	2013	2014	2015	2016	
GDP (CVM %)	2.8	0.9	2.9	3.0 - 4.0	
Investment (CVM %)	-0.8	-2.6	4.6	9.5	
- Private (CVM %)	-0.8	-2.0	-1.3	4.7	
- Public (CVM %)	-1.0	-4.9	22.6	11.2	
Private consumption CVM %)	0.8	0.6	2.0	2.6	
Public consumption (CVM %)	4.7	1.7	2.7	3.2	
Exports of goods (%)	-0.1	-0.3	-5.0	3.0	
Imports of goods (%)	-0.2	-8.5	-9.8	5.4	
Inflation (%)	2.2	1.9	-0.8	1.0-2.0	
Current account to GDP (%)	-0.8	3.3	6.3	5.7	

Supporting factors

- Acceleration of government expenditure and investment
- Positive contribution from economic stimulus packages
- Gradual recovery of the global economy and the export prices
- Depreciation of Thai baht
- Gradual recovery of agricultural prices
- Low oil price
- Continual expansion of the tourism sector

Risks

Risks and Limitation

- Slowdown of Chinese Economy
- Depreciation of RMB and currencies
- of Thailand's trading partners
- Impact from drought



Source: NESDB, released on 17th November 2015





Macro Economic View

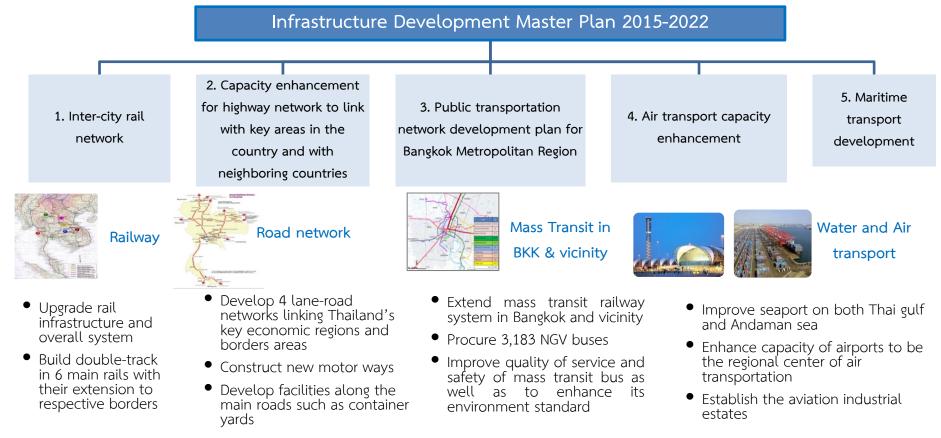
Infrastructure Investment Plan

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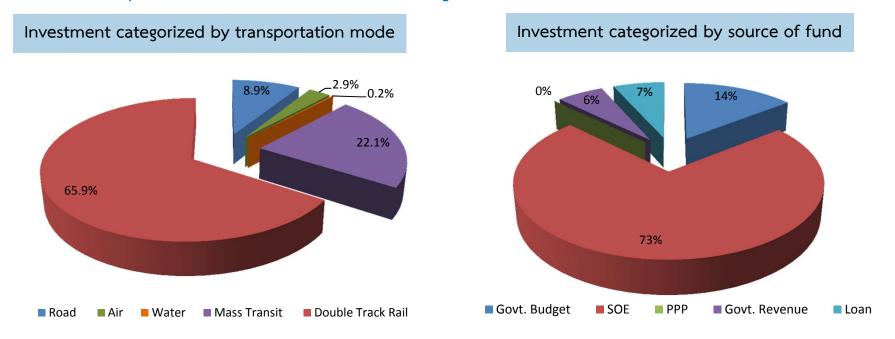
Thailand's Transport Infrastructure Development Master Plan (2015 – 2022)

The new transportation development strategies (2015-2022) consists of 5 key programs, aiming to reduce cost of logistics and transportation, which in turn improve the competitiveness of the economy.



Thailand's Infrastructure Development Master Plan (2015 – 2022): Investment Budget

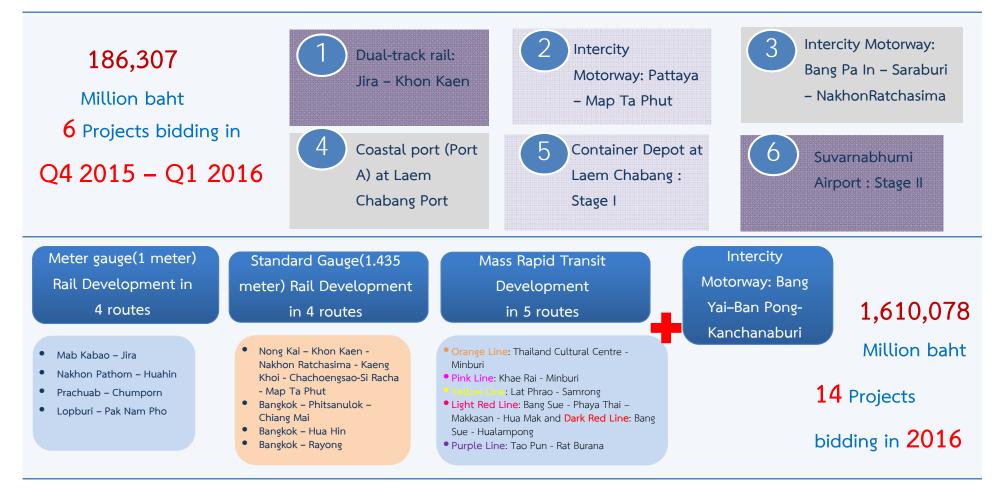
The Master Plan has the total investment budget of 3.38 TB, with 1.796 TB allocation towards the Action Plan for 2016 (53 percent of the total investment budget)



Note : * Investment budget for double track rail projects excludes the investment budget of the standard gauge rail projects.

** Investment budget for air transpiration excludes the development of Suvarnabhumi Airport, but includes that of U Tapao Airport.

Key Transportation Projects Ready for Bidding in 2015-2016



Thailand's Key Activities to Support Regional Integration



Corridor Network

- Thailand acts as active development partner (470 million USD assistance)
- Fulfill missing links along corridors, especially in Myanmar
- Upgrade road standard to ASEAN class
- Promote road safety
- Cooperate with Mekong countries, aiming to achieve the first GMS railway link within 2020
- Establish Greater Mekong Railway Association in Thailand



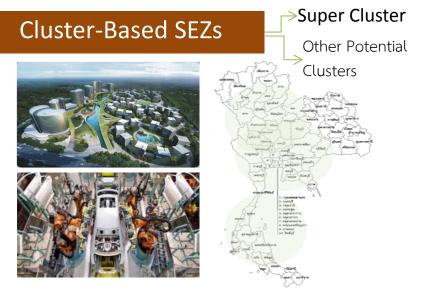
Regional Supply Chain and Production Base

- Jointly develop Dawei SEZ with Myanmar
- Conduct border development plan with Cambodia
- Review a Master Plan Study for establishment of Special Economic zones in Key border towns in Thailand

Special Economic Zone Development in Thailand

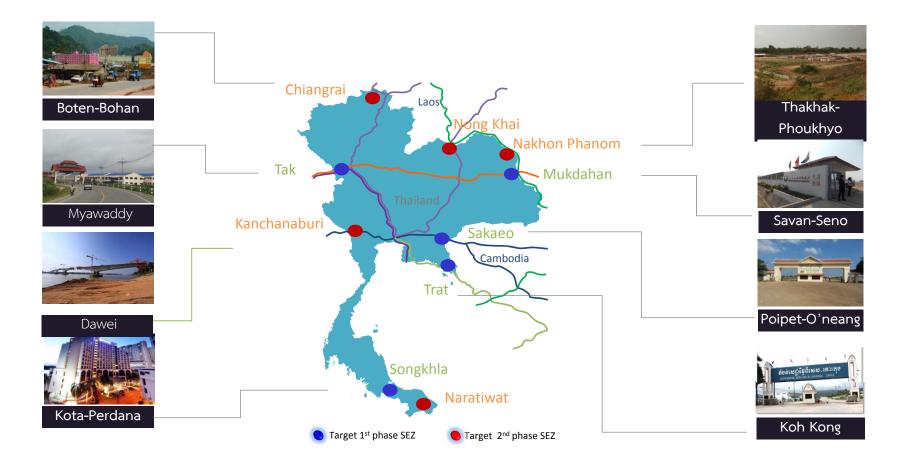


- Have potential for trade investment, produce connecting with neighboring countries-utilize AEC
- SEZ development improves the livelihood of people
- Focus on potential local economic activities + labor intensive industries and logistics

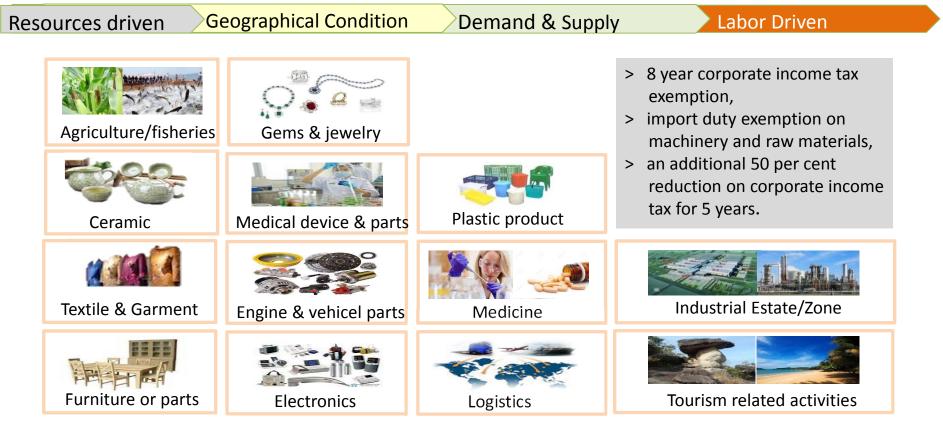


- Focus on future industry such as research and development, high technology industry, and industry with low laborintensive activities.
- Link with key players from down stream to upstream producers, supporting industries, academic institutions, government agencies, private sector organizations, and local economies.

10 targeted areas for SEZs are located along the Economic Corridors and will be complementary with SEZs in neighboring countries



13 Targeted Activities will be offered maximum incentives through BOI

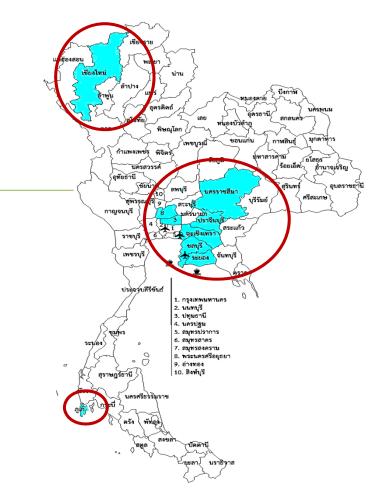


Cluster-Based SEZ Development : Super Cluster

For High Technology and Future Industry

First S-curve

- •Next-Generation Automotive
- •Smart Electronics
- •Affluent, Medical and Wellness Tourism
- •Agriculture and Biotechnology
- Food for the Future
- New-S-curve
- Robotics
- Aviation and Logistics
- •Biofuels and Biochemicals
- Digital
- Medical Hub



9 Provinces Ayutthaya Pathumthani Chonburi Rayong Chachoengsao Prachinburi Nakhonratchasima Chiangmai Phuket

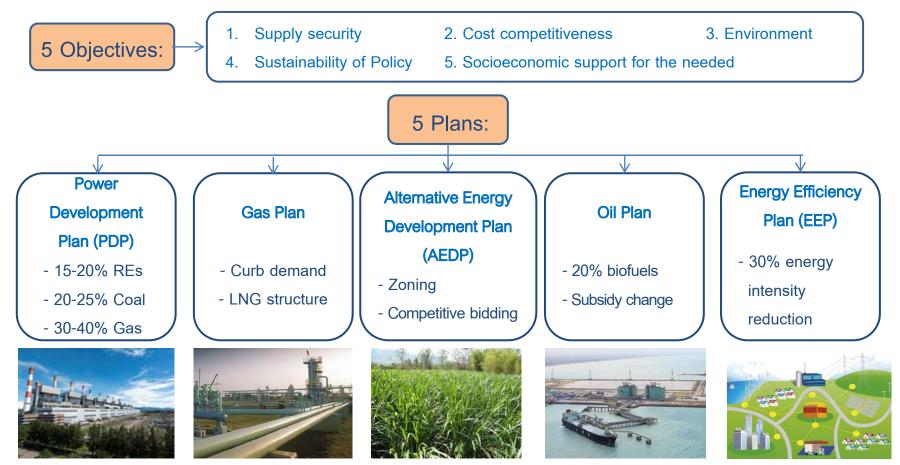
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Energy: Thailand Integrated Energy Blueprint (2015 - 2036)



Source: MOE

Energy: PDP & AEDP 2015 - 2036

Power Development Plan (PDP)

Fuel Proportion Target for Electricity Generation in PDP (%)

Fuel Type	2014	PDP Target				
i dei Type	2014	In 2026	In 2036			
Imported Hydro	7	10-15	15-20			
Coal and its products	20	20-25	20-25			
Renewable	8	10-20	15-20			
Natural Gas	64	45-50	30-40			
Nuclear	-	-	0-5			
Diesel/ Fuel Oil	1	-	-			

Alternative Energy Development Plan (AEDP)

Target Electricity Generated by Renewable (MW)

Fuel Type	2014	AEDP Target (In 2036)
Waste	66	550
Biomass	2,452	5,570
Biogas	312	600
Energy Crop	-	680
Small Hydro	110	376
Wind	220	3,002
Solar	1,570	6,000

NESDB's Vision :

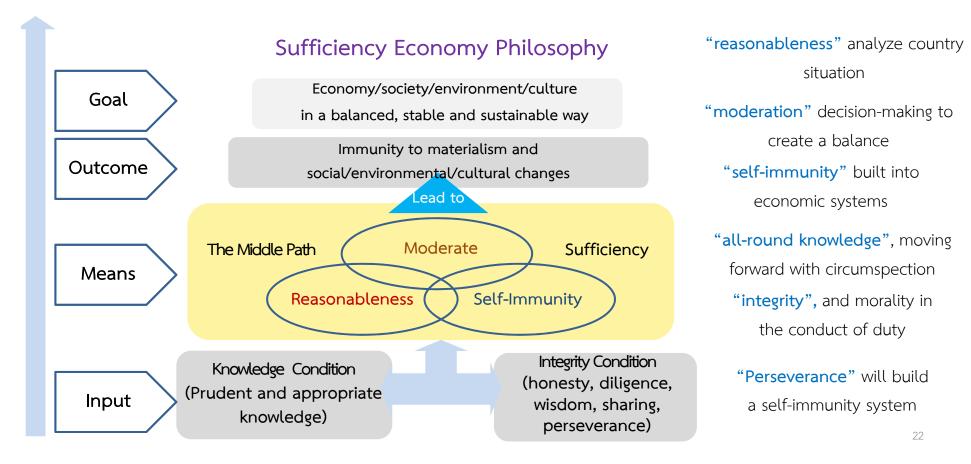
"Being the core planning agency responsible for strategy formulation towards balanced and sustainable development, upholding national interests, up-to-date with the latest changes and working with the highest efficiency"



www.nesdb.go.th

BACK-UP

The direction of national development towards the middle path on foundations of the dynamic equilibrium of development and readiness to cope with potential changes.



Various Application of Sufficiency Economy

- utilize resources efficiently with the concern on risk management , human resource development, innovation, and create organizational culture (honesty, integrity, and knowledge sharing. **Business Sector** disseminating "Best Practices" of Utilized the "New Theory" the philosophy's application to Press and Media Agriculture Sector inspire Thai people to apply it. Law and regulation lead to the Guide students to a better Political principle for government to Education understanding of Sufficiency formulate policy and budget with Institution Institution Economy Philosophy through the concern on effectiveness, **Public Sector** classroom curriculum and reasonable cost, and response to people's needs. activities
 - Implements mega project with reasonableness and concern on risk management. Budget allocation is designed with the focus on balanced investment

Key components of GDP growth in the third quarter of 2015

investment showed robust growths. Private and public consumption expenditure continued to grow, while export of goods still declined due to the global economic slowdown.

On the expenditure side: export of services and public On the production side: hotel and restaurants and construction sectors expanded well. Other service sectors also grew at favorable rates. Moreover, the manufacturing sector started to grow after experiencing contraction in previous quarters. On the other hand, the agricultural sector was impacted by the drought and imposed constraint on growth.

Expenditure									Production								
Unit: %		201	14	-		2015			Unit: %		201	4			20	15	
(CVM)	Year	H1	Q3	H2	Q1	Q2	H1	Q3	(CVM)	Year	H1	Q3	H2	Q1	Q2		Q3
Private consumption	0.6	-1.0	2.5	2.3	2.4	1.6	2.0	1.7	Agriculture	0.3	3.0	-0.4				-5.4	-5.7
Public consumption	1.7	2.5	-1.3	0.9	3.3	3.8	3.5	1.0	Non-agriculture	0.9	-0.2	1.1	2.1	4.1	3.5	3.8	3.4
Investment	-2.6	-7.9	2.6	2.9	10.7	2.7		-1.2	Manufacturing	-0.4	-1.7	0.4	0.9	2.3	-0.6	0.9	0.8
- Private	-2.0	-7.2	3.2	3.7	3.6	-3.2		-6.6	Electricity, Gas & Water	2.9	0.0	4.3	6.3	3.8	2.9	3.3	4.8
- public	-4.9	-10.1	0.9	0.3	37.8	24.7	30.9	15.9	Supply					02.4	170	00.4	
Exports	0.0	-0.3	-3.7	0.4	1.0	1.0	1.0	1.8	Construction	-4.4	-7.6	-2.5				20.4	
- Goods	0.7	1.0	-1.6	0.4	-2.5	-4.0	-3.2	-1.9	Wholesale & Retail Trade	0.7	-0.7	1.7	2.3	4.1	3.7	3.9	3.9
- Services	-2.5	-5.4	-11.7	0.2	14.6	24.9	19.1	17.5	11	-2.9	-4.6	-6.1	-1.3	13.5	18.7	16.0	10.9
Imports	-5.4	-9.9	-0.4	-0.6	2.3	-0.4	1.0	-2.4	Transportation, Storage	3.4	2.1	3.5	4.6	7.4	9.4	8.4	
- Goods	-6.8	-12.6	-0.4	-0.5	4.0	-0.3	1.8	-3.3				010				0	
- Services	0.4	1.6	-0.5	-0.8	-3.6	-0.7	-2.2	0.8	Financial Intermediation	6.6	6.4	6.9	6.9	8.5	8.2	8.3	6.5
GDP	0.9	0.2	1.0	1.6	3.0	2.8	2.9	2.9									
Source: NESDB พถศจิกายน 2558									GDBrce: NESDB	0.9	0.2	1.0	1.6	3.0	2.8	2.9	2.9

Key macroeconomic development issues

1. Implementing monetary and fiscal policies to stabilize the economy and to support the economic growth and inclusive development





2. Accelerating the investment in both private and public sectors.

3. Developing in science, technology and innovation.





4. Restructuring the production sector including agricultural, manufacturing, and service sectors to strengthen the economic growth.

5. Developing the new manufacturing and service sectors to serve as new growth engines





6. Strengthening the SMEs.





8. improving the rules and regulation in order to facilitate on trade and to enhance economic, efficiency

Supporting factors for 2016



Acceleration in the disbursement of public expenditure budget

- Wider budget deficit under the FY2016 of 390 billion baht, from the FY2015 of 250 billion baht.
- ▶ 6 infrastructure projects in 2015 (about 250 billion baht) and also 12 projects in 2016 (1.5 trillion baht).
- Water resource management and road transport system project (about 77 billion baht).



Economic stimulus package A gradual recovery of global phase III

- 6 key economic stimulus measures during Oct-Nov 2015 (Total value of 359 billion baht, loans of 270 billion baht, budget disbursement of 89 billion baht).
- Loan program and budget were mostly apparent in 2015, the positive impacts will continue to foster the economic growth in 2016.



economy and export prices

- In 2015, world economic growth is expected to expand by 3.0 percent, crude oil price : 52.5 USD/BBL, export price declined by 2.0 percent and export value contracted by 5.0 percent.
- 2016. World economic ln growth is expected to expand by 3.4 percent, crude oil price :50-60 USD:BBL export price will start to expand and will improve export value.



The depreciation of Thai Baht

- In H1/15, export value in Thai baht declined by 3.7 percent, slower than in US dollars which declined by 4.9 percent
- ▶ In Q3/15, export value in Thai baht increased by 4.6 percent due to baht depreciation, although export value in USD declined by 4.7 percent.
- 2016, Thai baht will ln continue to depreciate.

Supporting factors for 2016 (continued)



A gradual increase in the agricultural prices

- Agricultural price index was stabilized as growth rate in third quarter started o expand for the first time in 7 quarters.
- In 2016, agricultural prices tends to gradual expand following a moderate recovery in global economy and a gradual increase in crude oil price.



A gradual recovery of crude oil price but still remaining at the low level

- In 2015, crude oil prices stayed around 52.5 USD:BBL. In 2016, crude oil prices tend to stay 50-60 USD:BBL.
- Low oil price helps real purchasing power of household and business.
- It help facilitate the implementation of accommodative monetary policy to support the economic recovery.



The expansion of the tourism sector

- Travel cost remains low as well as political situation will improve.
- Depreciation of Thai Baht reduces traveling cost in Thailand.
- Increase of long-haul tourists following the economic recovery of advanced economies.
- In 2016, Inbound tourists are expected to be 32.5 million people and generate income of 1.65 trillion baht, expanding 7.5 and 9.3 percent respectively.

Risk factors and limitations



The slowdown of the Chinese economy and countries with weak economic fundamental

- Chinese economy is expected to expand by 6.7 percent, lower than 6.9 percent in 2015, although Chinese economy might slow down a faster pace than expected.
- Countries with weak fundamental, high external debts, sharp depreciation and highly dependence on primary commodity export.
- Risk of higher dispute in Middle East.



Depreciation of trade partners' and competitors' currencies

- ECB tends to expand monetary base to reduce deflation risk.
- BOJ tends to expand monetary base further for supporting economic growth.
- Chinese RMB will be depreciated following the economic and financial liberalization policy, a decline in foreign reserves as well as the necessity of domestic liquidity management.



The drought situation continues to be severe

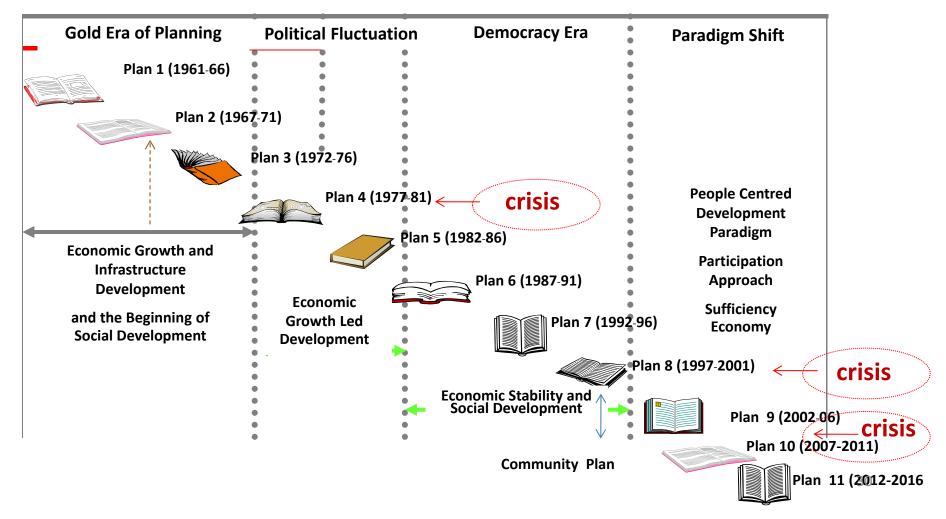
- The available water level was recorded at 4,247 million cubic, lower than 4,745 million cubic in previous year.
- Risk of delay rain.
- Agricultural base income tends to affect following the draught although agricultural prices tend to gradual expand.

Economic Projection for 2015 - 2016 (As of 16th November 2015)

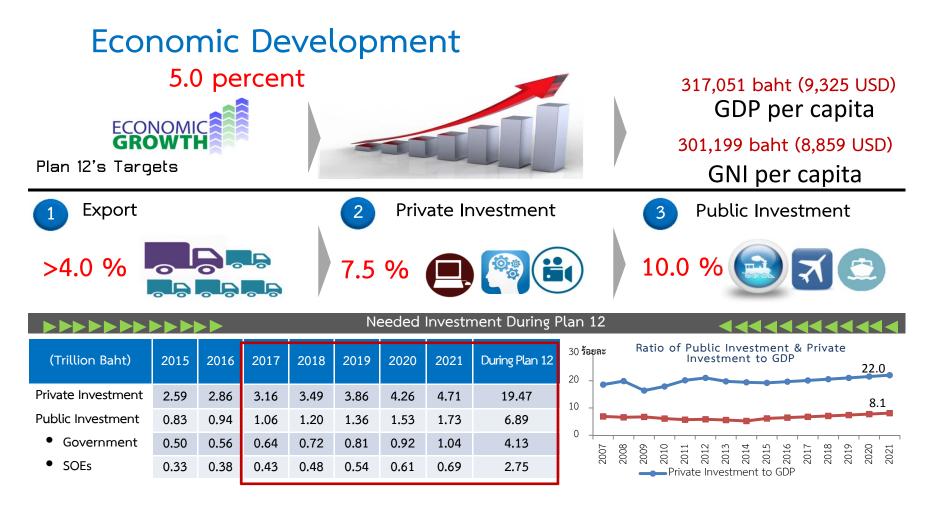
	Actus	l Data		Projection				
	Actua		20	2016				
	2013	2014	17 th August 2015	16 th Nove	mber 2015			
GDP (at current prices: Bil. Bht)	12,910.0	13,148.6	13,407.7	13,451.0	14,123.6			
GDP Growth (CVM, %)	2.8	0.9	2.7 – 3.2	2.9	3.0 - 4.0			
GDP (at current prices: Bil. USD)	420.1	404.8	396.2	392.2	386.9			
GDP per capita (USD per year)	6,293.0	6,041.1	5,892.6	5,832.6	5,736.4			
Investment (CVM, %)	-0.8	-2.6	7.0	4.6	9.5			
- Private (CVM, %)	-0.8	-2.0	1.8	-1.3	4.7			
- Public (CVM, %)	-1.0	-4.9	21.8	22.6	11.2			
Private Consumption (CVM, %)	0.8	0.6	1.8	2.0	2.6			
Public Consumption (CVM, %)	4.7	1.7	3.8	2.7	3.2			
Export value of goods (%)	-0.1	-0.3	-3.5	-5.0	3.0			
Import value of goods (%)	-0.1	-8.5	-5.5	-9.8	5.4			
Trade balance (Bill. USD)	6.7	24.6	27.7	33.0	29.6			
Current Account balance (Bill. USD)	-5.2	15.4	18.8	24.9	22.2			
Current Account to GDP (%)	-1.1	3.8	4.8	6.3	5.7			
Inflation (%)	2.2	1.9	(-0.7) – (-0.2)	(=0.8)	1.02.0			

Source : NESDB, As of 16" November 2015

A Road to Thailand's development : Sustainable Development

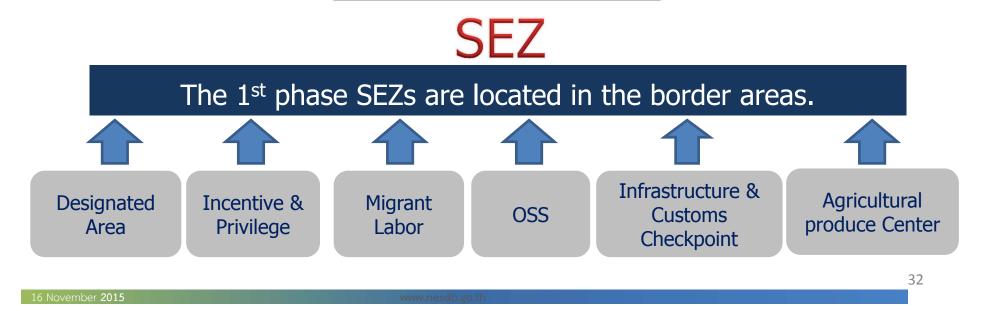


Development Target during Plan 12



Thailand's Border SEZ Development Framework

Enhance regional cooperation + Lower disparities + Strengthen National Security



Incentives & Privileges

BOI	Offer up to 8 year-tax holiday* with other privileges including permission to employ foreign unskilled workers
	* 13 target activities will get 8 year tax holiday, others will get +3
Ministry of Finance	Reduce taxes from 20% to 10% for 10 accounting periods*
	* for projects that are not include in BOI's investment promotion list
Customs	Revise condition for establishment of bonded warehouse and duty free zone in the SEZs by Customs Department
BOI-SMEs	Revise condition for SME's investment in SEZs by BOI
IEAT	Provide tax and non-tax incentives for companies located in industrial estates and IEAT free zones

1

Infrastructure (example in Tak SEZ)

Infrastructure & customs checkpoint are upgrading to better serve economic activities.



Key highlights



Current Status

- Tak-Mae Sot Highway no. 12 section 3 is under construction section 4 receives 2016-budget allocation
- The 2nd bridge crossing Mei River Ground breaking ceremony was held in August 2015
- Development of Border Checkpoint The development includes new customs checkpoint & immigration office, purchase of equipment for animal& phytosanitary
- inspection Improvement of Mae Sot airport Purchasing land for taxi-way expansion is underway.
- Mae Sot industrial estate F/S was completed. The construction will be finished before 2018.

- Truck terminal F/S is in process.

6 November **201**5

Cluster-Based SEZ Development : Other Potential Clusters



Ago-Processing Cluster

- Northern region (vegetable-processing, herbal product)
- Northeastern region (livestocks, casava, sugar cane, corn)
- Lower central region (sugar cane, pineapple, rubber)
- Eastern region (fruit processing, rubber)
- Southern region (palm, seafood processing, rubber)

Garment and Textile Cluster

- Western side : Linking with production bases in myanmar
- Eastern side : Linking with production bases in Cambodia
- Bangkok : Center for Design, Sourcing, Trading

Measures (according to Cabinet's Resolution)	Key characteristic of measures	Amount (million baht)
Assistance measures for low-income earners	- To Grant loan to village fund, not exceed 1 million baht each	60,000 (loan)
and stimulus measures of small-scale public	- To Allocate budget to Tambon (Sub district), 5 million baht each	36,275 (budget)
investment (1 st Sep 15)	- The procurement of government units. Each item must not more than 1 million baht.	40,000 (budget)
	- To grant low-interest loan to SMEs to secure working capital	100,000 (loan)
Financial and fiscal urgent measures to	- Streamlining rule and condition of Portfolio Guarantee Scheme, stage 5	100,000 (guaranteed loan)
encourage SMEs (8 th Sep 15)	- Reduce corporate income tax rate for SMEs to 10 percent of net profit for two years.	-
	- Corporate income tax exemption for SMEs who apply for commercial registration between 1 st Oct 2015 and 31 st Dec 2016 (New Start-up) for years	-
	- To ease loan approval for low and medium income earners	-
Financial and fiscal measures to stimulate property sector (13 th Oct 15)	- Cut in housing and condominium transfer and mortgage fees to 0.01% of the value	-
	- Personal income tax exemption for expenses incurred for five years for real estate with building and land or condominium priced no more than three million baht	-
Tax measures to promote domestic investment (3 rd Nov 15)	- A double corporate income tax deduction for expenses incurred on new investment (Enterprises can choose either this measure or speeding up investment measure)	-
Investment promotion stimulation measures by BOI (3 rd Nov 15)	- Exemption of corporate income tax, from one to five years and 50% tax reduction for five years, depending on actual investment (excluding land and working capital) but not more than eight years for those approved for investment promotion.	-
Supporting measures for rubber farmers (3 rd Nov 15)	- To provide rubber farmers 1,500 baht for up to 15 rai per household	13,132.5 (budget) 12,750 from BAAC 382.5 budget for FY2016