

Preface

The Office of the National Economic and Social Development Board (NESDB) is officially responsible for Gross Regional and Provincial Product compilation (GRP & GPP) by using top down approach which disaggregates annual GDP at national level into GRP and GPP. The objective of GRP and GPP is to provide economic and social indicators at regional and provincial levels so as to use in policy and planning for regional and provincial development.

The compilation of Gross Regional and Provincial Product is a part of System of National Accounts of Thailand, particularly by the production approach, and compliance with the International System of National Accounts (SNA) by using the chained volume measures (CVMs) in measuring real terms. For Gross Regional and Provincial Product 2016 edition, data are revised back to 2012 in accordance with the annual GDP 2016 and the latest basic data provided by related agencies. In addition, the structure of economic activities is reclassified to be consistent with Thailand Standard Industrial Classification of All Economic Activities 2009 (TSIC 2009). Details of revisions are indicated in the revision note on the following pages. This document presents eight years of data series from 2009 to 2016.

NESDB would like to express our gratitude to agencies and individuals, all government agencies and private institutions providing needed data as well as useful comments on enhancing compilation of the Gross Regional and Provincial Product, and looks forward to continuing our cooperation in the future.



(Thosaporn Sirisumphand)

Secretary-General

National Economic and Social Development Board

July 2018

Revisions to the Gross Regional and Provincial Product 2016 Edition

The compilation of Gross Regional and Provincial Product (GRP and GPP) Chain Volume Measures 2016 Edition has been compiled and revised in various aspects as follows:

1. Revising GRP and GPP figures back to 2012 as to be consistent with Gross Domestic Products (GDP) in the National Income of Thailand, Chain Volume Measures 2016¹ Edition.
2. Reclassifying structure of economic activities as to be consistent with Thailand Standard Industrial Classification of All Economic Activities 2009 (TSIC 2009).
3. Compiling and improving indicators of provincial-level production according to the revision of data sources back from 2012 to 2015. This was used in distribution of values of all production activities in order to calculate provincial value added. Major data sources with revisions included:
 - Agricultural, forestry and fishing sector; revising crops and livestock production figures back from 2012 to 2015 according to the Agricultural Statistics of Thailand 2017 from the Office of Agricultural Economic, Ministry of Agriculture and Co-operatives.
 - Fishing sector: revising fishing production figures back from 2012 to 2015 according to the Fisheries Statistics of Thailand 2016 from the Department of Fisheries.
 - Construction sector: revising construction data of government back from 2014 to 2015.
 - The number of tourists and expenditure from the Department of Tourism.
 - The data of government operations and financial statements in compliance with the latest data from GFMS of Ministry of Finance.
4. The change in real value added is used in measuring the changes of production outputs at the kingdom, regional, and provincial levels. Meanwhile, the structure of nominal value added or value added at current prices is used in analyzing the production income distribution which was affected by the changes of production quantities and prices.
5. In this publication, r assigned as superscript of data period(s) in tables stands for “revised” representing revision figures based on most recent data, coverage, and compilation methodology. Likewise, “p” stands for “preliminary” annual figure, which is subject to revisions in the next series of publication.

Any reproduction of data and materials in this publication must make a proper reference to NESDB as the data source.

¹ See the detailed revisions in the National Income of Thailand 2016 Chain Volume Measures

Executive Summary

Overall economy: The Thai economy in 2016 increased by 3.3%, compared to a rise of 3.0% in 2015 as a result of a continuous expansion of private final consumption expenditure, exports, and tourist-related sector. Such a rise of private final consumption was partly from high farming income in line with rising price in main agricultural and fishery prices. In addition, low inflation level maintained as a consequence of low fuel price. Meanwhile, public investment and government consumption expenditure decelerated due partly to base-effect from disbursement expedition for government investment project, namely water resource development and management project and urgent phase highway project. Higher demand led to rising in production especially for non-agricultural sector which maintained high level of an expansion. Favorable expansion sectors covered manufacturing sectors such as motor vehicles, chemical products, computer and components whereas service sectors rose favorably in construction and tourist-related sectors such as accommodation and food service activities, transportation and storage. Meanwhile, contraction of agricultural sector improved relatively compared to a sharp decline in last year.

Overall production in 2016 at current market prices valued at Baht 14,533,465 million. After deducting Baht 682,354 million of net factor income from the rest of the world, Gross National Product (GNP) registered at Baht 13,851,111 million, with an expansion of 6.2%. Deduction further by net indirect taxes and consumption of fixed capital, National Income (NI) in 2016 valued at Baht 9,921,830 million. The per capita GNP was Baht 205,339 while per capita NI was Baht 147,088 higher than that of Baht 138,179 in 2015 or a 6.4% growth.

Agricultural production dropped by 2.5% improved from a decline of 6.3% in the previous year as a result of a slowdown of major crops such as paddy, sugarcane, and oil palm. Livestock declined by 0.9% attributed to cattle and buffalo. Moreover, swine and poultry such as chicken and hen's egg decreased. Meanwhile, fishing production accelerated, particularly on marine fishing.

Non-agricultural production grew by 3.8% from a growth of 4.1% in the previous year. Manufacturing sector rose by 2.2% continually rising from last year. Expansion was sourced by a high production of main manufacturing sector such as motor vehicles, chemical and chemical product, and computer and computer's part. In addition, services and tourist-related sector such as construction, accommodation and food services grew by 5.4% and 9.9%, respectively, partly as a consequence of a robust growth of tourism; particularly on tourism receipts from Thais and international tourist arrivals. Real estate activities sector grew by 7.0% as a result of a transfer fees reduction measure. Moreover, construction increased by 8.6%, mainly contributed to residential building construction growing in response to higher demand for living, particularly in areas along the sky train route.

Regional production showed favorable growth in almost all regions. The East showed the highest growth rate at 6.2%, followed by the South (3.7%), Bangkok and its vicinities (3.2%), the Northeast (2.3%), the North (1.8%) and the West (0.7%). Nonetheless, the Central decreased by 0.3%.

Growth Rate and Production Income Structure by Region

Region	(%)			
	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
Northeast	3.0	2.3	9.9	9.8
North	-0.9	1.8	7.9	7.8
South	4.0	3.7	8.8	9.1
East	1.6	6.2	17.4	17.8
West	1.9	0.7	3.6	3.6
Central	5.0	-0.3	5.9	5.6
Bangkok and vicinities	4.0	3.2	46.5	46.3
Whole Kingdom	3.0	3.3	100.0	100.0

The production income distribution, measuring from proportion of gross regional product (GRP) to GDP, changed slightly in 2016. The East showed a higher share which increased from 17.4% in 2015 to 17.8% in 2016, and the South increased from 8.8% in 2015 to 9.1% in 2016. Meanwhile, the production share of Bangkok and its vicinities, the Northeast, the North, and the Central decreased from 46.5%, 9.9%, 7.9% and 5.9% in 2015 to 46.3%, 9.8%, 7.8%, and 5.6% in 2016, respectively. The West kept the same proportion as the previous year at 3.6%.

The main sectors of each region can be described as follows: *Bangkok and vicinities* was considered to be the highest share of GRP, posted at 46.3%, contributed mainly to manufacturing, wholesale and retail trade, and financial and insurance activities. *The East* recorded a share of 17.8% of GRP, led by manufacturing, mining and quarrying, and wholesale and retail trade. *The Northeast* posted a 9.8% share of GRP, originated by the agriculture, forestry and fishing; manufacturing; and education. *The South* covered 9.1% of GRP, contributed to the agriculture, forestry and fishing; accommodation and food service activities; and manufacturing. *The North* accounted for 7.8% of GRP, led by the agriculture, forestry and fishing; manufacturing; and wholesale and retail trade. *The Central* accounted for 5.6% of GRP, led by manufacturing; wholesale and retail trade; and agriculture, forestry and fishing. Lastly, *the West* recorded as a share of 3.6% of GRP, attributed to manufacturing; agriculture, forestry and fishing; and wholesale and retail trade.

GRP per capita still showed high disparity between the East, the highest level at Baht 460,377 per annum, and the Northeast, the lowest level at Baht 76,207 per annum. The highest GRP per capita was ranked from the East, Bangkok and vicinities, the Central, the West, the South, the North, and the Northeast, respectively.

GPP per capita revealed that the high GPP per capita belonged to the East, Bangkok and vicinities, the Central, and the South, while the lowest GPP per capita was the Northeast. The largest gap

in GPP per capita emerged between Rayong, the highest, and Nong Bua Lam Phu, the lowest, with GPP per capita of Baht 1,009,496 per annum and Baht 49,443 per annum, respectively. It was 20.4 times difference. In 2016, the five provinces with the highest GPP per capita were Rayong, Chon Buri, Bangkok metropolis, Phra Nakhon Sri Ayuthaya, and Chachoengsao, respectively. On the contrary, Nong Bua Lam Phu, Yasothon, Kalasin, Am Nat Charoen, and Narathiwat, were ranked in the five lowest GPP per capita, respectively.

GRP per capita and Growth rate in 2015-2016

Region	GRP per capita (Baht/year)		Growth rate (%)	
	2015	2016	2015	2016
Northeast	72,831	76,207	3.7	4.6
North	94,999	98,999	-1.7	4.2
South	132,627	143,544	4.6	8.2
East	428,842	460,377	-0.8	7.4
West	136,745	143,878	3.2	5.2
Central	257,521	258,839	6.1	0.5
BKK & vicinities	410,467	427,199	4.7	4.1
GDP	204,459	215,455	3.5	5.4

GPP per capita in 2016 (Baht per annum)

The highest 10's		The lowest 10's	
1. Rayong	1,009,496	1. Nong Bua Lam Phu	49,443
2. Chonburi	548,877	2. Yasothon	54,047
3. Bangkok Metropolis	543,708	3. Kalasin	57,798
4. Phra Nakhon Sri Ayuthaya	460,223	4. Am Nat Charoen	59,319
5. Chachoengsao	433,400	5. Narathiwat	61,115
6. Samut Sakhon	382,679	6. Mae Hong Son	61,255
7. Prachinburi	378,669	7. Chaiyaphum	61,826
8. Phuket	357,498	8. Surin	63,462
9. Samut Prakan	337,026	9. Roi Et	64,052
10. Saraburi	330,837	10. Si Sa Ket	64,298

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Gross Regional and Provincial Product in 2016

1. Regional economy

Overall regional economy

The regional economy in 2016 showed favorable growth in almost all regions. A region with the highest expansion among all regions was the East with an increase of 6.2%, followed by the South (3.7%), Bangkok and vicinities (3.2%), the Northeast (2.3%), the North (1.8%), and the West (0.7%). However, the Central decreased by 0.3%.

Production income structure

Production income structure in 2016, considered from the proportion of gross regional product to GDP in nominal terms, showed slight changes. That of the East and the South increased from 17.4% and 8.8% in 2015 to 17.8% and 9.1% in 2016. Meanwhile, Bangkok and vicinities, the Northeast, the North, and the Central slightly decreased from 46.5%, 9.9%, 7.9%, and 5.9% in 2015 to 46.3%, 9.8%, 7.8%, and 5.6% in 2016, respectively. Meanwhile, the share of GRP to GDP of the West remained at the same portion as the previous year at 3.6%.

Regional Growth Rate and Production Income Structure

(%)

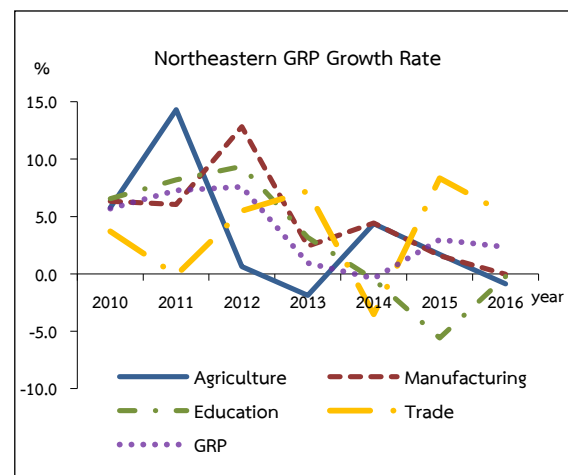
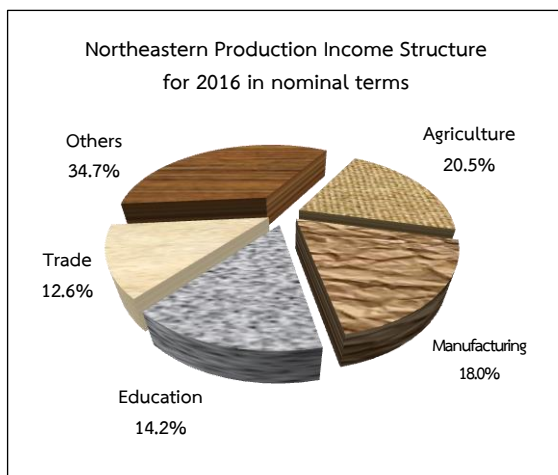
Region	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
Northeast	3.0	2.3	9.9	9.8
North	-0.9	1.8	7.9	7.8
South	4.0	3.7	8.8	9.1
East	1.6	6.2	17.4	17.8
West	1.9	0.7	3.6	3.6
Central	5.0	-0.3	5.9	5.6
Bangkok & vicinities	4.0	3.2	46.5	46.3
Whole kingdom	3.0	3.3	100.0	100.0

The regional production

The Northeast

Overall Gross regional product (GRP) of the Northeast in real terms increased by 2.3%, compared to a rise of 3.0% in 2015. An expansion was from non-agriculture production with an increase of 3.3%, compared to a rise of 3.4% in the previous year. Meanwhile, agricultural production decreased by 0.9%, falling from a rise of 1.7% in the previous year.

Agricultural production decreased by 0.9%, in contrast to an increase of 1.7% in 2015. Such a decrease was seen from lower main crops production, namely sugarcane, cassava and vegetable. Livestock production continued to decrease as a result of lower production of cattle. Likewise, agricultural services slowed down and forestry increased in comparison to the previous year. Fishing production improved compared to the previous year.



Non-agricultural production increased by 3.3%, slightly decelerated from an expansion of 3.4% in 2015. Such an expansion was mainly from electricity, gas, steam and air conditioning supply (6.6%); construction (7.9%); accommodation and food service activities (9.4%); financial and insurance activities (15.0%); real estate activities (7.0%); and arts, entertainment and recreation (39.0%). An expansion of real estate activities corresponded to a robust growth of construction sector. Moreover, financial and insurance activities increased due to continual expansion of financial intermediation activities. Transportation and storage increased by 1.4%, greatly improved from a decline of 3.2% in the previous year. Meanwhile, sectors with slower expansion were mining and quarrying; water supply; sewerage, waste management and remediation activities; wholesale and retail trade; professional, scientific and technical activities; administrative and support service activities; human health and social work activities; and other service activities. On the contrary, sectors with decreasing growth were information and communication; and public administration and defence; compulsory social security; with a decline of 19.1% and 1.1% in contrast to a rise of 3.7% and 15.0% in the previous year, respectively. Education dropped by 0.2%, improved from a fall of 5.6% in the previous year.

Northeastern GPP Growth Rate and Production Income Structure

(%)

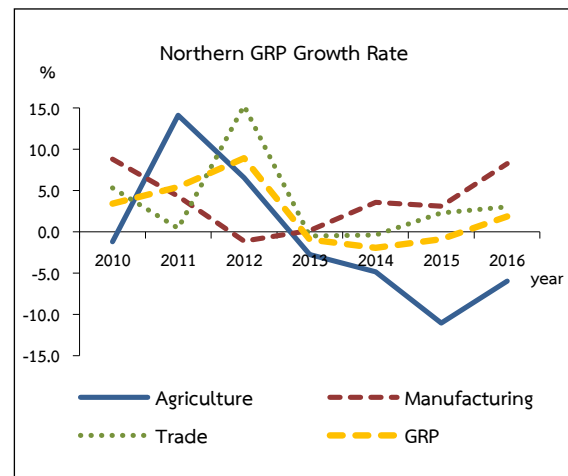
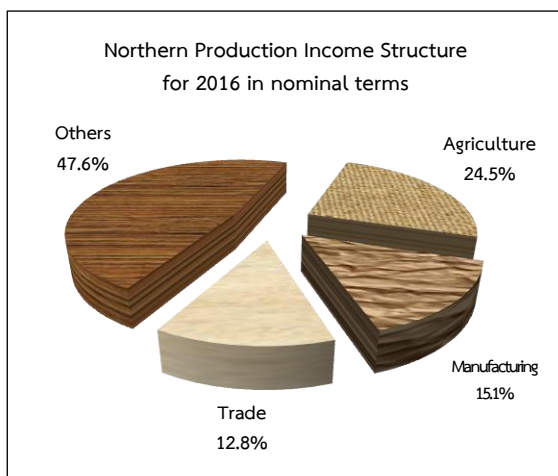
Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Khon Kaen	1.9	-0.7	14.0	13.7
2. Udon thani	2.0	0.8	7.6	7.6
3. Loei	0.0	3.3	3.0	3.2
4. Nong Khai	3.9	1.1	2.7	2.7
5. Mukdahan	4.6	0.1	1.6	1.6
6. Nakhon Phanom	2.2	4.2	2.9	2.9
7. Sakon Nakhon	1.4	3.5	3.6	3.7
8. Kalasin	2.2	2.4	3.7	3.7
9. Nakhon Ratchasima	1.6	3.9	18.5	18.5
10. Chaiyaphum	3.5	1.6	4.2	4.1
11. Yasothon	-1.6	3.8	1.8	1.8
12. Ubon Ratchathani	7.4	3.7	7.9	8.0
13. Roi Et	1.3	2.4	4.9	4.8
14. Buri Ram	6.8	0.0	5.9	5.8
15. Surin	3.8	1.9	5.0	5.0
16. Maha Sarakham	4.1	5.4	3.7	3.8
17. Si Sa Ket	2.5	3.8	4.7	4.7
18. Nong Bua Lam Phu	5.8	5.8	1.6	1.6
19. Am Nat Chareon	4.5	3.4	1.1	1.2
20. Bueng Kan ²	11.3	2.8	1.6	1.6
GRP	3.0	2.3	100.0	100.0

² Changwat Bueng Kan was established under the Act Establishing Changwat Bueng Kan, 2011.

The North

Overall Gross regional product (GRP) of the North in real terms increased by 1.8%, improved from a drop of 0.9% in 2015. Such a rise was from non-agriculture production with an increase of 4.8%, compared to a rise of 3.7% in the previous year. Agricultural production decreased by 6.0%, compared to a fall of 11.1% in the previous year.

Agricultural production decreased by 6.0%, compared to a drop of 11.1% in 2015. Contraction of agricultural sector was caused from a decrease in main crops production, namely paddy, sugarcane and fruits as a result from the drought. Fishing production improved from a decline in the previous year. Moreover, forestry and agricultural services showed a favorable growth. However, livestock production slowed down in comparison to the previous year.



Non-agricultural production increased by 4.8%, improving from a rise of 3.7% in 2015. Such an increase was from manufacturing, which accounted for the highest share of non-agricultural production, rose by 8.2%. Major components of manufacturing with increasing growth included beer production, sugar production, and processing and preserving of chicken meat, respectively. Sectors with robust expansion were electricity, gas, steam and air conditioning supply (3.0%); wholesale and retail trade (3.0%); financial and insurance activities (10.3%); administrative and support service activities (8.6%); arts, entertainment and recreation (31.8%); other service activities (3.6%). In addition, some sectors which expanded reversely from a decrease in the previous year were mining and quarrying; and real estate activities with a rise of 4.3% and 12.0% in contrast to a decrease of 2.5% and 1.1% in 2015, respectively. Meanwhile, some sectors slowed down namely, water supply; sewerage, waste management and remediation activities; construction; transportation and storage; accommodation and food service activities; professional, scientific and technical activities; and human health and social work activities. On the other hand, sectors with decreasing growth were information and communication; public administration and defence; compulsory social security; and education with a drop of 17.1%, 0.2% and 0.1% in contrast to a rise of 3.8%, 5.6% and 0.9% in the previous year, respectively.

Northern GPP Growth Rate and Production Income Structure

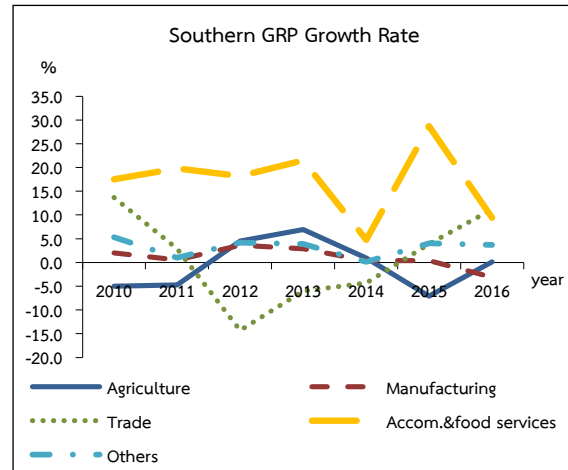
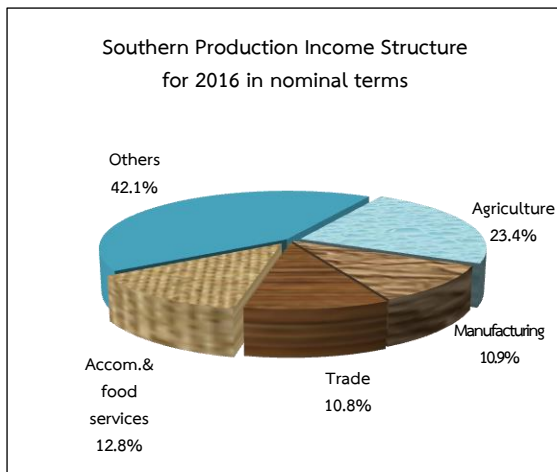
(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Chiang Mai	3.5	4.2	19.0	19.6
2. Lampang	-3.1	5.0	5.9	6.1
3. Uttaradit	-9.0	1.7	2.9	3.0
4. Mae Hong Son	9.8	-0.2	1.1	1.1
5. Chiang Rai	2.5	2.2	8.7	8.8
6. Phrae	-1.4	5.1	2.4	2.4
7. Lamphun	-9.4	1.9	6.3	6.2
8. Nan	3.5	5.0	2.6	2.7
9. Phayao	1.9	4.6	3.0	3.1
10. Nakhon Sawan	-2.8	-4.0	9.7	9.2
11. Pitsanulok	-1.5	-0.2	7.8	7.7
12. Kam Phaeng Phet	2.9	6.2	9.3	9.4
13. Uthai Thani	-6.2	-4.1	2.4	2.3
14. Sukothai	-4.8	-4.5	3.8	3.5
15. Tak	1.8	0.9	4.2	4.2
16. Phichit	-8.7	-2.5	4.0	3.7
17. Petchabun	-1.3	2.3	6.9	7.0
GRP	-0.9	1.8	100.0	100.0

The South

Overall Gross regional product (GRP) of the South increased by 3.7%, compared to a rise of 4.0% in 2015. This was attributed to an increase in non-agricultural production with a 4.7% growth, slowing down from 8.0% in the previous year. However, agricultural production increased by 0.1%, recovered from a decline of 7.1% in 2015.

Agricultural production increased by 0.1%, recovered from a fall of 7.1% in 2015, as a result of a 1.6% drop in crop and animal production, and related service activities, improving from a fall of 6.3% in the previous year, mainly driven by livestock production and forestry. Moreover, fishing production accelerated by 7.0% in contrast to a fall of 12.2% in 2015, mainly contributed to marine fishing in response to high external demand and the mitigation of Early Mortality Syndrome (EMS) in shrimps. Meanwhile, production of freshwater fishing growth remained unchanged. However, crop production continued to drop, led by rubber, and oil palm as a result of the drought. The price of agricultural products increased according to higher domestic and external demand. Agricultural services decelerated.



Non-agricultural production grew by 4.7%, compared to a rise of 8.0% in the previous year. Sectors with increasing growth included wholesale and retail trade with a growth of 11.2%, greatly higher than a growth of 3.9% in the previous year, due to improvement of household purchasing power in line with higher farming together with imposing government's economic stimulus packages at the end of 2016 which helped boost spending. Moreover, accommodation and food services activities increased by 9.4%, compared to a rise of 28.7% in 2015 due mainly to lower number of tourists from East Asia as a result of the fact that government suppressed illegal tour guides. Transportation and storage grew by 5.9%, compared to a rise of 8.9% in 2015. Financial and insurance activities increased by 9.3%, compared to 3.8% in 2015. Construction expanded by 12.0%, compared to 12.1% in 2015, mainly driven by continual expansion of residential building construction which led to an increase in real estate activities with a growth of 10.0%, in contrast to a fall of 0.1% in 2015. Such acceleration was seen from real estate activities with own or leased property. Electricity, gas and air conditioning supply increased by 11.7%, in contrast to a fall of 3.6% in 2015. Water supply; sewerage, waste management and remediation activities grew by 20.4%, compared to 9.5% in 2015 due mainly to an expansion of water collection and supply. Art, entertainment and recreation grew by 25.8%. Such a sharp increase was seen from the expansion of sales of lottery tickets as a result of a new policy allowing lottery

reservation in advance. Lastly, professional, scientific and technical activities increased by 19.1%, compared to 6.1% in 2015. However, public administration and defence; compulsory social security increased by 4.4%, lower than 14.3% in 2015. Human health and social work activities grew by 3.4%, compared to 3.5% in 2015 due to a slowdown in both hospital activities and human health activities. Administrative and support service activities increased by 4.0%, compared to 13.5% in 2015 owing to a slowdown in travel agency and tour operator activities in line with downturn in tourism. In addition, other service activities increased by 0.9%, compared to 4.5% in 2015. Sectors with decreasing growth were manufacturing with a decline of 3.1%, in contrast to a rise of 0.4% in 2015. Such a decline was seen from production of rubber sheets and rubber blocks for being used as raw materials of downstream industries; and that of palm oil and cement. In addition, mining and quarrying decreased by 9.1% in contrast to a rise of 8.3% in 2015 due mainly to lower production of natural gas from main fields, namely Bongkot, Pailin, and Arthit. Education, and information and communication dropped by 0.2% and 21.9% in contrast to a rise of 2.4%, and 3.6% in 2015, respectively.

Southern GPP Growth Rate and Production Income Structure

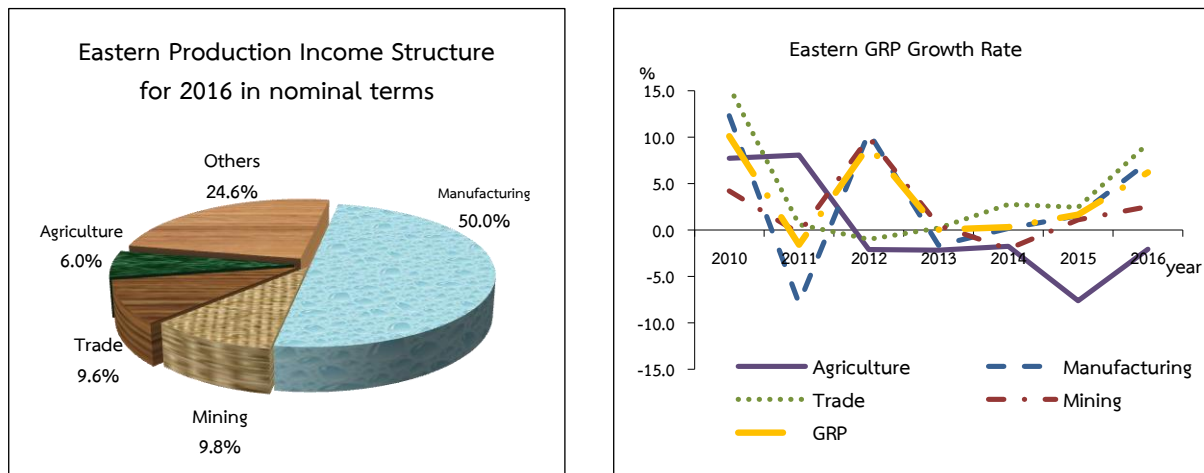
(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Phuket	12.5	9.2	13.8	14.5
2. SuratThani	6.3	2.4	15.2	15.2
3. Ranong	-4.7	7.4	1.9	2.0
4. Phangnga	22.0	3.2	4.8	4.8
5. Krabi	0.6	4.1	6.5	6.6
6. Chumphon	-4.0	6.9	5.9	6.2
7. Nakhon Si Thammarat	-1.3	1.8	11.6	11.4
8. Songkhla	6.2	0.1	19.5	18.3
9. Satun	-0.1	3.7	2.6	2.6
10. Yala	4.9	2.0	3.3	3.3
11. Trang	-3.6	3.9	5.0	5.1
12. Narathiwat	-0.4	3.7	3.2	3.2
13. Phatthalung	-3.5	5.6	2.6	2.7
14. Pattani	-0.6	5.4	4.1	4.1
GRP	4.0	3.7	100.0	100.0

The East

Overall Gross regional product (GRP) of the East in 2016 grew by 6.2%, accelerating from a 1.6% growth in 2015. Non-agricultural production, accounting for 94.0% of total production, increased by 6.7%, compared to a rise of 2.3% in 2015. Meanwhile, agricultural production, accounting for 6.0% of total production, showed a drop of 2.1%, compared to a fall of 7.6% in 2015.

Agricultural production decreased by 2.1%, recovering from a fall of 7.6% in 2015 as a result of growing of perennial crops with a fall of 4.0%, compared to a fall of 13.2% in 2015, mainly contributed to pineapple. Moreover, growing of rice and rubber decreased by 6.1% and 3.0%, improving from a fall of 14.2% and 4.7% in 2015, respectively. However, livestock production increased by 5.8% as a result of an increase in production of swine, hen's eggs, and chicken with a growth of 15.1%, 3.7%, and 5.8%, respectively. Fishing production grew by 6.5%, greatly improving from an 11.5% drop in 2015, as production of marine fishing increased by 7.2%, recovering from a reduction of 12.6% in the previous year.



Non-agricultural production continued to grow by 6.7%, compared to a rise of 2.3% in 2015. Particularly, manufacturing, a major sector with the highest share of Eastern production, increased by 7.3%, compared to a rise of 1.5% in 2015. Such an expansion was seen from main manufacturing industries, namely, petroleum refinery with a rise of 1.4%; motor vehicles, trailers and semi-trailers with a sharp rise of 35.2% due to higher production of commercial cars and pickups together with opening a new car production factory at Rojana Industrial Park in Prachinburi province; electrical machinery and apparatus with a rise of 12.5%; chemical and chemical products with an 8.4% growth on account of an increase in petrochemical manufacturing in line with higher demand in downstream industries; rubber and plastic products with a 9.7% growth; and food products with a 4.0% growth, especially processing and preserving of meat and meat products. Meanwhile, manufacturing sector with contraction included computer, electronic and optical products with a fall of 0.1%; beverage products with a fall of 3.0%; followed by other transport equipment, textiles, wearing apparel, and paper and paper products with a fall of 4.2%, 1.8%, 10.7%, and 13.3%, respectively. Sector with increasing growth was seen from mining and quarrying with a rise of 2.5%. Such a rise was from a 2.4% rise of petroleum and natural gas production, especially from crude oil production and natural gas production with an increase of 10.4%, and 0.2%, respectively. Moreover, sectors with favorable expansion included wholesale and retail

trade; electricity, gas, steam and air conditioning supply; transportation and storage; and accommodation and food service activities which grew by 9.3%, 2.1%, 5.1%, and 36.6%, respectively. However, other major sectors falling covered education; professional, scientific and technical activities; and information and communication which declined by 1.5%, 1.8%, and 11.6%, respectively.

Eastern GPP Growth Rate and Production Income Structure

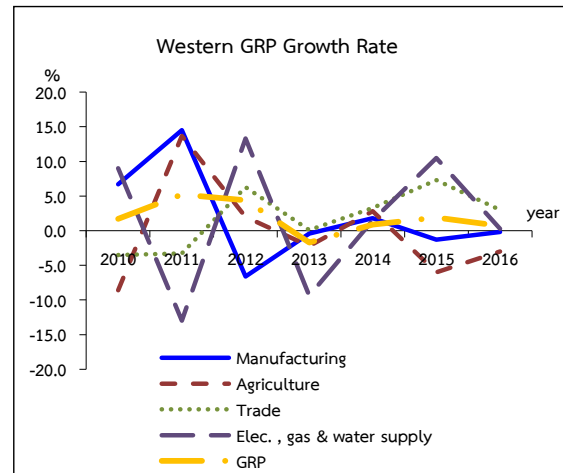
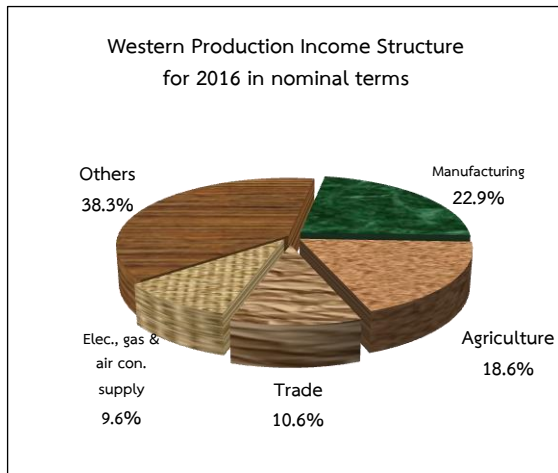
(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Chonburi	4.3	7.7	33.4	35.2
2. Chachoengsao	-2.9	6.7	13.3	13.1
3. Rayong	3.4	3.4	36.4	34.6
4. Trat	-4.3	2.3	1.5	1.5
5. Chanthaburi	-4.7	2.1	4.2	4.2
6. Nakhon Nayok	2.0	3.4	1.0	1.0
7. Prachinburi	-4.4	14.7	8.6	8.8
8. Sa Kaeo	4.7	2.9	1.6	1.6
GRP	1.6	6.2	100.0	100.0

The West

Overall Gross regional product (GRP) of the West grew by 0.7%, slowing down from 1.9% in 2015, due mainly to a deceleration in non-agricultural production by 1.6%, lower than a rise of 4.0% in 2015. Meanwhile, agricultural production decreased by 3.0%, compared to a fall of 6.0% in the previous year.

Agricultural production decreased by 3.0%, compared to a fall of 6.0% in 2015, as a consequence of a decrease in crop and animal production and related service activities by 3.8%, improving from a fall of 5.7% in the previous year. Such a drop was partly from crops production in line with unfavorable weather condition from the drought. Major crops with decreasing growth were seen in paddy, sugarcane, oil palm, and vegetables. Livestock production showed sluggish expansion, as a result of lower production of cattle and dairy products. However, production of swine, poultry, and hen's eggs expanded. Fishing production increased by 5.6%, in contrast to a fall of 10.2% in 2015 as a result of a 7.2% increase in marine fishing in response to higher external demand and disappearance of EMS in shrimps. Meanwhile, production of freshwater fishing remained unchanged.



Non-agricultural production grew by 1.6%, compared to a rise of 4.0% in 2015. Such deceleration included wholesale and retail trade which increased by 3.0%, compared to a rise of 7.3% in 2015 due to a slowdown in sale of agricultural raw materials and live animals; electricity, gas, steam, and air conditioning supply with a rise 0.3%, compared to 10.5% in 2015 as a result of a decline in electric power generation of the private sector; transportation and storage with 2.2%, lower than 14.0% in 2015. Such a decline was from lower transport via pipeline; construction with a 10.8% growth, compared to 11.8% in 2015 owing to the decrease from base-effect of government construction spending in the previous year, along with an expansion of accommodation and food service activities with a 4.2% growth, compared to 10.0% in 2015; human health and social work activities with a 2.6% growth, slightly decelerating from 2.9% in 2015 due to slowdown in both hospital activities and human health activities; administrative and support service activities with a rise of 25.8%, decelerating from 30.3% in 2015 due to slowdown in travel agency and tour operator activities in response to subdued tourism; professional, scientific and technical activities with a 9.9% growth, compared to 11.8% in 2015. However, sectors with favorable growth were public administration and defence; compulsory social security with a rise of 1.0%, in contrast to a fall of 1.2% in 2015; financial and insurance activities with a rise of 10.9%, compared to a rise of 8.6% in 2015. Such an expansion was seen from life insurance businesses; real estate activities with a rise of 13.9%, in contrast to a fall of 5.4% in 2015 owing to expansion of real estate activities with own or leased property; water supply; sewerage, waste management and remediation activities with a rise of 8.2%, compared to a rise of 3.0% in 2015 as a result of an expansion in water collection and supply; and art, entertainment and recreation with a rise of 31.0%, compared to a rise of 5.6% in 2015 owing to expansion of sales of lottery tickets which related to a new policy allowing lottery reservation in advance. However, other sectors with decreasing growth were manufacturing, major share sector of total Western production, with a fall of 0.2%, compared to a fall of 1.3% in 2015. Such a decrease was from lower production in manufacturing of sugar due to raw material shortage; together with manufacturing of beverage and textile in response to lower domestic demand. Education declined by 2.5%, compared to a fall of 10.7% in the previous year. Mining and quarrying dropped by 26.6%, in contrast to a rise of 50.6% in 2015 due to a decrease in other mining and quarrying and extraction of salt. Information and communication sector; and other service activities sector dropped by 18.1%; and 3.5% in contrast to a rise of 6.2%, and 0.1%, respectively.

Western GPP Growth Rate and Production Income Structure

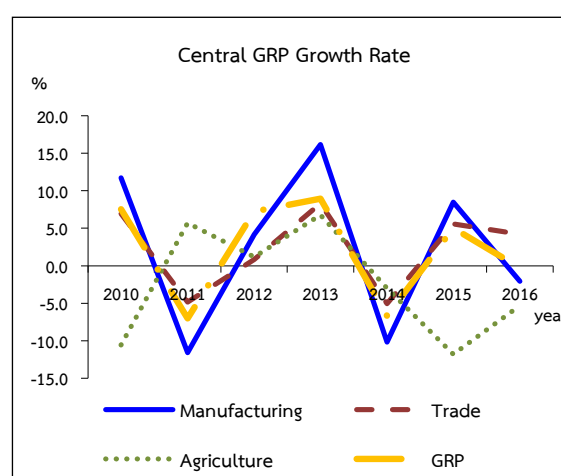
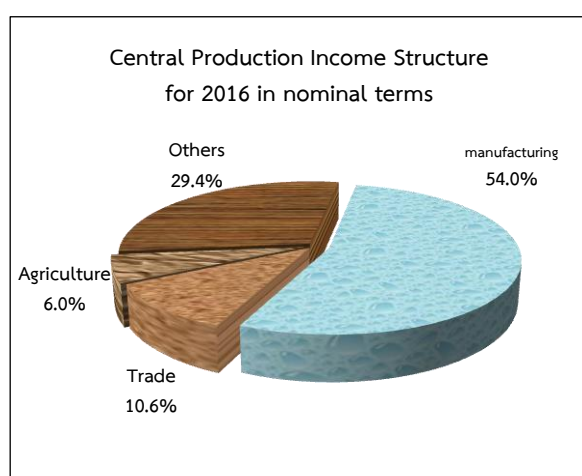
(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Ratchaburi	3.6	0.7	33.1	33.5
2. Kanchanaburi	-0.6	1.5	17.6	17.9
3. PhachuapKhiri Khan	0.6	4.3	16.2	16.8
4. Phetchaburi	-0.4	2.2	12.3	12.2
5. SuphanBuri	4.3	-5.5	16.8	15.6
6. SamutSongkhram	1.3	2.7	4.0	4.0
GRP	1.9	0.7	100.0	100.0

The Central

Overall Gross regional product (GRP) of the Central in 2016 declined by 0.3%, in contrast to a rise of 5.0% in 2015 as a result of agricultural production with a fall of 5.3%, better than a fall of 11.8% in 2015. On the contrary, non-agricultural production increased by 0.1%, compared to a rise of 6.5% in the previous year.

Agricultural production contracted by 5.3%, compared to a fall of 11.8% in 2015, caused by the drought, and the delay of rainy season. Main crops, namely, paddy and sugarcane shrank by 14.3%, and 5.2%, respectively. Meanwhile, livestock production increased by 0.9%, compared to a rise of 4.5% in 2015; contributed mainly to production of cattle and buffalo with a fall of 6.1%, whereas swine and poultry increased by 8.0%, and 2.1%, respectively. Fishing production increased due mainly to an expansion of in freshwater fishing.



Non-agricultural production increased slightly by 0.1%, compared to a rise of 6.5% in 2015, attributed to manufacturing, accounting for the highest proportion of the Central production, decreased by 2.1%, in contrast to a rise of 8.5% in 2015. Such an increase was from a contraction in motor vehicles, trailers and semi-trailers production by 17.2%, led by passenger cars and commercial cars production. Moreover, production of rice milling; machinery and equipment; rubber and plastic products; chemicals and chemical products; and electrical equipment showed decreasing growth. On the contrary, manufacturing sectors with increasing growth were beverages with a rise of 25.4%, from 12.3% in 2015, led by beer, followed by computer, electronic and optical products with a rise of 8.6%, compared to a rise of 11.9% in 2015. Sectors with decreasing growth included transportation and storage; education; and professional, scientific and technical activities with a decrease of 2.6%, 4.1%, and 12.3%, respectively. However, sectors showed increasing growth covered wholesale and retail trade with an increase of 4.2%; led by sale of food and beverage; and sale of motor vehicle parts and accessories, financial and insurance activities, and real estate activities.

Central GPP Growth Rate and Production Income Structure

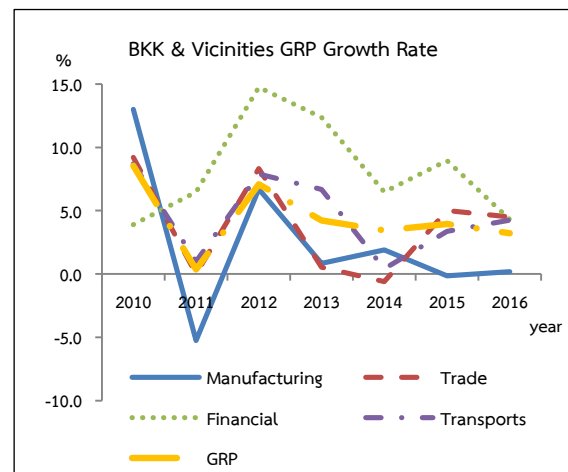
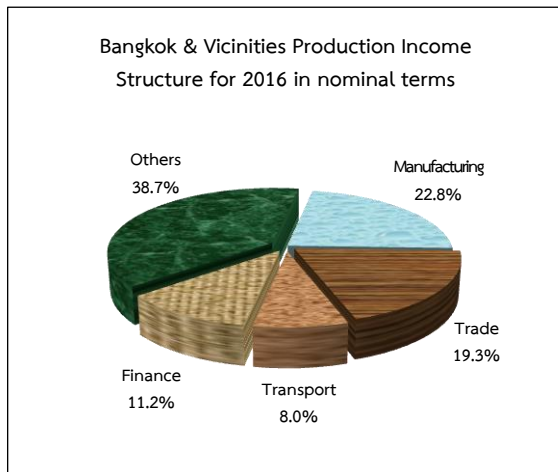
(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Saraburi	0.7	4.0	26.9	29.2
2. Singburi	-6.0	0.6	3.0	3.1
3. Chai Nat	-6.9	1.0	3.5	3.5
4. Ang Thong	-1.4	0.7	3.0	3.1
5. Lopburi	-3.0	0.9	11.9	12.0
6. Phra Nakhon Sri Ayuthaya	11.7	-3.0	51.7	49.1
GRP	5.0	-0.3	100.0	100.0

Bangkok and vicinities

Overall Gross regional product (GRP) of Bangkok and vicinities in 2016 expanded by 3.2% compared to a 4.0% growth in 2015, attributed to non-agricultural production, accounting for 99.2% of total production, with an increase of 3.3%, compared to a rise of 4.1% in 2015. Meanwhile, agricultural production decreased by 2.2%, improved from a reduction of 5.6% in the preceding year.

Agricultural production decreased by 2.2%, compared to a fall of 5.6% in 2015, primarily from crops and animal production, and related service activities with a contraction of 6.8%, compared to a fall of 2.4% in 2015 mainly contributed to declining in paddy, sugarcane, cattle and buffalo, and swine. However, fishing production increased by 6.1%, in contrast to a fall of 10.9% in 2015 due to an expansion of marine fishing in response to higher demand from external market and disappearance of the Early Mortality Syndrome (EMS) in shrimps.



Non-agricultural production grew by 3.3%, compared to an increase of 4.1% in 2015. Manufacturing, a major sector, grew by 0.2%, improving from a fall of 0.1% in 2015, attributed to chemicals and chemical products with a rise of 1.3% led by production of plastics and synthetic rubber in primary forms; food products with a rise of 1.9% improving from a fall of 0.3% in the previous year led by processing and preserving of meat and meat products; and electrical equipment with a rise of 19.4%, improving from 1.6% in the previous year due to an expansion of domestic appliances. Manufacturing sectors with decreasing growth were beverage with a fall of 6.9% in contrast to a rise of 2.4% in the previous year; motor vehicles, trailers and semi-trailers with a fall of 15.7% compared to a fall of 7.8% in the previous year; computer, electronic and optical products with a fall of 6.9% improving from a fall of 15.3% in the previous year. Besides, other dropping sector included textiles due to lower domestic demand and wearing apparel due to continual impact of the relocation of production base to neighbor countries and lower exports. Meanwhile, sectors with increasing growth included wholesale and retail trade with a rise of 4.5%, due to higher domestic demand and an increase in number of foreign tourists together with the government economic stimulus packages by the end of 2016 enhancing consumer spending. Financial and insurance activities expanded by 4.3%, compared to a 9.0% growth in the previous year due to a slowdown of operating income of commercial banks and other depository institutions. Such a slowdown was from both credits and deposits. In addition, income from fees and other services also

slowed down from the previous year. Life insurance businesses showed favorable growth, while non-life insurance businesses slowed down. Transportation and storage increased by 4.2%, better than 3.4% in the previous year, mainly contributed to air transports, water transports and postal and courier activities with a growth of 10.8%, 11.1%, and 10.9%, respectively. Accommodation and food service activities increased by 7.3% compared to a rise of 10.7% in the previous year. Information and communication grew by 6.6% compared to a rise of 10.5% in the previous year. Real estate activities expanded by 4.9%, from 1.9% in the previous year, due partly to a transfer fees reduction from 2.0% to 0.01% in the first 4 months of 2016.

Bangkok & Vicinities GPP Growth Rate and Production Income Structure

(%)

Province	Growth rate in real terms		Structure in nominal terms	
	2015	2016	2015	2016
1. Bangkok Metropolis	4.5	3.8	69.6	70.3
2. Samut Prakan	2.0	-0.6	10.7	10.3
3. Pathum Thani	2.8	1.5	5.4	5.2
4. Samut Sakhon	-0.5	4.7	5.4	5.4
5. Nakhon Pathom	5.9	2.8	4.7	4.6
6. Nonthaburi	4.8	4.0	4.2	4.2
GRP	4.0	3.2	100.0	100.0

2. GRP and GPP per capita³

GRP per capita in 2016 showed that the region with the highest GRP per capita was the East, stood at 460,377 Baht per year. The Northeast scored the lowest level, stood at 76,207 Baht per year. The difference was 6.0 times, higher than the difference of 5.9 times in 2015. GRP per capita was ranked from the highest to the lowest as follows: the East, Bangkok and vicinities, the Central, the West, the South, the North, and the Northeast, respectively. Overall, GDP per capita in 2016 was 215,455 Baht per year, higher than 204,459 Baht per year in 2015.

In terms of the growth rate, GRP per capita in 2016 was ranked as followed: the South (8.2%), the East (7.4%), the West (5.2%), the Northeast (4.6%), the North (4.2%), Bangkok and vicinities (4.1%), and the Central (0.5%), respectively. Regarding GDP per capita, it grew at higher rate of 5.4%.

³ GRP or GPP per capita is simply the value of total GRP or GPP divided by the number of people in the area. GRP or GPP per capita does not reflect how wealthy the people *really* are; it only shows how well off they *would* be if everybody got an equal share of what the economy produces.

GPP per capita showed that the highest 10 GPP per capita belonged to the East, Bangkok and vicinities, the Central, and the South. The top 10 were Rayong, Chonburi, Bangkok Metropolis, Phra Nakhon Si Ayutthaya, Chachoengsao, Samut Sakhon, Prachinburi, Phuket, Samut Prakan, and Saraburi, respectively. All of which contained non-agricultural production as major productions, namely, manufacturing; wholesale and retail trade; financial and insurance activities; transportation and storage; accommodation and food service activities; and real estate activities. The lowest 10 GPP per capita belonged to the Northeast, the North, and the South. As most provinces in these regions had most of their income generated from agricultural activities, which were high uncertainty in both yields and prices. Moreover, yet, non-agricultural production, especially manufacturing productions, had not spreaded across these areas; reflecting by less investment in non-agricultural production and led to lower GPP in these regions. The 10 lowest GPP per capita provinces were Nong Bua Lam Phu, Yasothon, Kalasin, Am Nat Charoen, Narathiwat, Mae Hong Son, Chaiyaphum, Surin, Roi Et, and Si Sa Ket. Rayong was the highest GPP per capita level at 1,009,496 Baht in 2016, such an income was mostly from petroleum refinery; chemicals and chemical products production; and rubber and plastic production, including mining and quarrying mainly from the increase in production of crude oil and natural gas. Meanwhile, Nong Bua Lam Phu was the lowest GPP per capita at 49,443 Baht in 2016, whose income was mainly from agricultural production. In addition, the difference of GPP per capita between Rayong and Nong Bua Lam Phu was 20.4 times in 2016, slightly improving from 21.5 times in 2015, representing the structure of income distribution of the country were close to the previous year.

GRP Per Capita

Region	Baht/year		Growth rate (%)	
	2015	2016	2015	2016
Northeast	72,831	76,207	3.7	4.6
North	94,999	98,999	-1.7	4.2
South	132,627	143,544	4.6	8.2
East	428,842	460,377	-0.8	7.4
West	136,745	143,878	3.2	5.2
Central	257,521	258,839	6.1	0.5
Bangkok & Vicinities	410,467	427,199	4.7	4.1
Whole Kingdom	204,459	215,455	3.5	5.4

GPP per capita in 2016 (Baht/year)

Province	Baht per year	Province	Baht per year
1. Rayong	1,009,496	40. Ang Thong	96,276
2. Chon Buri	548,877	41. Suphan Buri	93,999
3. Bangkok Metropolis	543,708	42. Tak	93,779
4. Phra Nakhon Si Ayutthaya	460,223	43. Lampang	93,557
5. Chachoengsao	433,400	44. Nakhon Nayok	92,629
6. Samut Sakhon	382,679	45. Chai Nat	90,532
7. Prachinburi	378,669	46. Uthai Thani	89,376
8. Phuket	357,498	47. Chiang Rai	86,884
9. Samut Prakan	337,026	48. Pattani	86,571
10. Saraburi	330,837	49. Phetchabun	86,017
11. Nakhon Pathom	294,858	50. Udon Thani	85,359
12. Phangnga	237,971	51. Nong Khai	84,465
13. Pathum Thani	235,596	52. Phayao	83,967
14. Krabi	234,436	53. Loei	83,439
15. Ratchaburi	216,064	54. Phichit	78,367
16. Chanthaburi	205,522	55. Uttaradit	77,340
17. Surat Thani	191,927	56. Nakhon Phanom	73,088
18. Nonthaburi	187,589	57. Phatthalung	69,159
19. Phachuap Khiri Khan	187,039	58. Nan	68,285
20. Lamphun	172,717	59. Mukdahan	67,103
21. Chumphon	168,460	60. Bueng Kan	67,021
22. Songkhla	157,029	61. Ubon Ratchathani	66,247
23. Trat	145,177	62. Sa Kaeo	65,669
24. Kam Phaeng Phet	137,882	63. Buri Ram	65,586
25. Phetchaburi	131,803	64. Maha Sarakham	65,520
26. Chiang Mai	130,034	65. Phrae	64,883
27. Lop Buri	125,784	66. Sakon Nakhon	64,759
28. Satun	124,400	67. Sukothai	64,732
29. Singburi	121,910	68. Si Sa Ket	64,298
30. Kanchanaburi	115,274	69. Roi Et	64,052
31. Khon Kaen	112,038	70. Surin	63,462
32. Samut Songkhram	109,868	71. Chaiyaphum	61,826
33. Trang	107,720	72. Mae Hong Son	61,255
34. Nakhon Sawan	106,567	73. Narathiwat	61,115
35. Nakhon Ratchasima	105,618	74. Am Nat Chareon	59,319
36. Ranong	100,720	75. Kalasin	57,798
37. Nakhon Si Thammarat	98,627	76. Yasothon	54,047
38. Yala	98,562	77. Nong Bua Lam Phu	49,443
39. Phitsanulok	96,957		