

CHAPTER 6

SPATIAL MANAGEMENT PLAN

The Spatial Management Plan is a basic framework that drives the translation of national strategic directions to the state level.

The Spatial Management Plan consist of aspects related to spatial availability (land use and transportation), growth areas (Conurbation, Promoted Development Zone, Catalyst Centre and Agropolitan Centre), settlement hierarchies, resource management (forest, water, food, energy source and other natural resources) and disaster risk areas (tsunami, flood, landslide, coastal erosion and rise in sea level).

A Spatial Management Plan at the state level is prepared to translate national strategic directions to the state level (all states in Peninsular Malaysia, Sabah and Labuan Federal Territory) especially for strategic directions that have direct implications on a spatial aspect such as :

1. Growth and development of cities as well as rural areas that is balanced and integrated (PD1 and PD 2);
2. Connectivity and access that is enhanced and sustainable (PD3);
3. Sustainable management of natural resources, food resources and heritage resources (KD1);
4. Management of risk areas (KD2);
5. Low carbon cities and sustainable infrastructure (KD3); and
6. Inclusive community development (KI1, KI2 and KI3).

This management plan shall become the basis for planning growth areas, conservation of resource areas as well as ensuring planning takes into account risks of natural disaster. This plan must be translated in development plans including the State Structure Plan, Local Plan, Special Area Plan and other related documents.

The main objectives of this Spatial Management Plan include:

1. Managing and driving the current and future development direction of states in line with the national development direction;
2. Ensuring state development optimizes existing resource and infrastructure; and
3. A mechanism and reference for State Planning Authorities to make decisions for every development as well as to monitor the performance of spatial planning at the state level.

Three (3) Types of State Spatial Management Plan



State Spatial Management Plan involve the following states:

1. Perlis	pp. 6 - 8
2. Kedah	pp. 6 - 14
3. Pulau Pinang	pp. 6 - 20
4. Perak	pp. 6 - 26
5. Kelantan	pp. 6 - 32
6. Terengganu	pp. 6 - 38
7. Pahang	pp. 6 - 44
8. Selangor	pp. 6 - 50
9. Kuala Lumpur FT	pp. 6 - 50
10. Putrajaya FT	pp. 6 - 50
11. N.Sembilan	pp. 6 - 56
12. Melaka	pp. 6 - 62
13. Johor	pp. 6 - 68
14. Sabah	pp. 6 - 74
15. Labuan FT	pp. 6 - 80

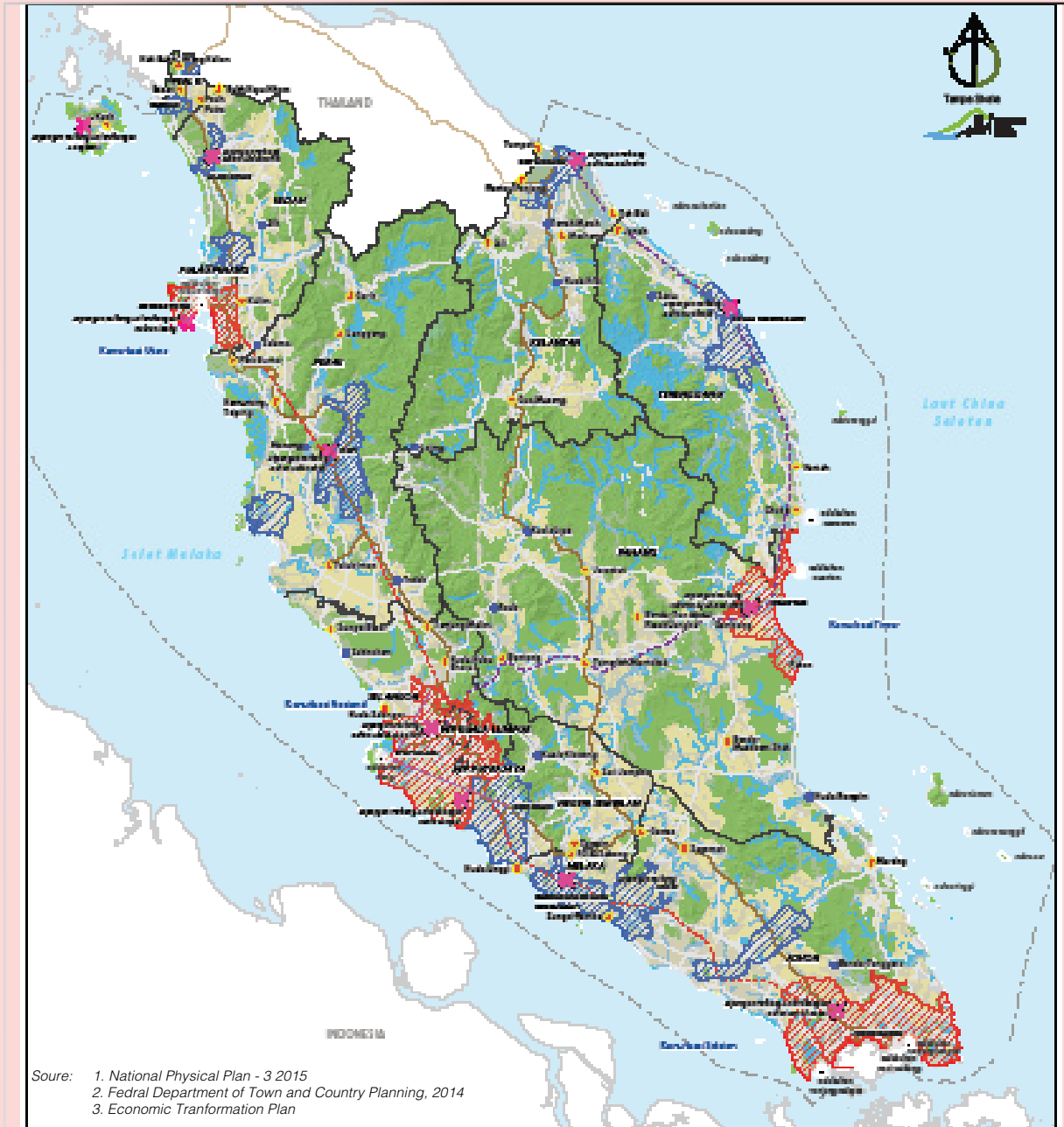
Spatial growth framework provides focus on the development within Conurbation areas and Promoted Development Zones (PDZ). Conurbation and PDZ areas are identified for the country in order to balance and distribute growth in all states according to their respective strengths. Meanwhile, medium sized cities / towns located outside of the PDZ and Conurbation areas are identified as Catalyst Centres. These centres have potential to be the main focus and functions as a growth centre for its surrounding catchment area. There are six (6) Conurbations, 17 PDZs, 48 Catalyst Centres and 22 Agropolitan Centres that have been identified.

Table 6.1 List of Growth Centres

State	Conurbation	Promoted Development Zone (PDZ)	Catalyst Centre	Agropolitan Centre
Perlis	X	<ul style="list-style-type: none"> Kangar-Arau-Kuala Perlis Padang Besar-Lembah Chuping 	<ul style="list-style-type: none"> Kaki Bukit-Wang Kelian Beseri Pauh Putra 	X
Kedah	X	<ul style="list-style-type: none"> Alor Setar-Jitra Sungai Petani 	<ul style="list-style-type: none"> Bukit Kayu Hitam Kuah Kulim 	<ul style="list-style-type: none"> Sik
Pulau Pinang	Northern Conurbation	X	X	X
Perak	X	<ul style="list-style-type: none"> Ipoh Lumut-Sitiawan-Seri Manjung 	<ul style="list-style-type: none"> Parit Buntar Gerik Lenggong Kamunting-Taiping Teluk Intan Tanjung Malim 	<ul style="list-style-type: none"> Selama Trolak Manong
Kelantan	X	<ul style="list-style-type: none"> Kota Bharu 	<ul style="list-style-type: none"> Tumpat Rantau Panjang Tok Bali Machang Jeli Gua Musang 	<ul style="list-style-type: none"> Tanah Merah Kuala Krai Lojing
Terengganu	X	<ul style="list-style-type: none"> Kuala Terengganu 	<ul style="list-style-type: none"> Jerteh Kerteh Chukai 	<ul style="list-style-type: none"> Setiu
Pahang	Eastern Conurbation	X	<ul style="list-style-type: none"> Jerantut Bandar Tun Abdul Razak (Jengka) Bandar Muadzam Shah Termerloh-Mentakab Bentong 	<ul style="list-style-type: none"> Raub Kuala Lipis Kuala Rompin
Selangor	National Conurbation	X	<ul style="list-style-type: none"> Kuala Selangor Sungai Besar Kuala Kubu Bharu 	<ul style="list-style-type: none"> Sekinchan
Kuala Lumpur Federal Territory	National Conurbation	X	X	X
Putrajaya Federal Territory	National Conurbation	X	X	X
Negeri Sembilan	X	<ul style="list-style-type: none"> Seremban-Nilai-Port Dickson (<i>Malaysia Vision Valley</i>) 	<ul style="list-style-type: none"> Seri Jempol Gemas Tampin 	<ul style="list-style-type: none"> Kuala Klawang
Melaka	X	<ul style="list-style-type: none"> Bandaraya Melaka Bersejarah 	<ul style="list-style-type: none"> Pulau Sebang Kuala Linggi Sungai Rambai 	
Johor	Southern Conurbation	<ul style="list-style-type: none"> Bandar Maharani Bandar Diraja Bandar Penggaram-Kluang 	<ul style="list-style-type: none"> Segamat Mersing 	<ul style="list-style-type: none"> Bandar Tenggara
Labuan Federal Territory	X	<ul style="list-style-type: none"> Labuan 	X	X
Sabah	Kota Kinabalu Conurbation	<ul style="list-style-type: none"> Sandakan Lahad Datu Keningau Tawau 	<ul style="list-style-type: none"> Ranau Kota Belud Kudat Kota Kinabatangan Tongod Semporna Tenom Kimanis Beaufort Sipitang Kota Marudu 	<ul style="list-style-type: none"> Karakit Pitas Abuan Kalabakan Lalampas Sapulut Long Pasia Kemabong
Sarawak	Kuching Conurbation	Not identified in the NPP-3	Not identified in the NPP-3	Not identified in the NPP-3

Box 6.1 National Spatial Growth Framework

National Spatial Growth Framework Plan provides the spatial development direction and national growth focus areas. At the state level, this plan shall be detailed out as a reference for spatial development of states through respective State Structure Plans.



Soure: 1. National Physical Plan - 3 2015
 2. Federal Department of Town and Country Planning, 2014
 3. Economic Tranformation Plan

PTS 1 RANGKA PERTUMBUHAN SPATIAL SEMENJANG MALAYSIA

PTS 1 menunjukkan kawasan potensi pembangunan negara yang menggariskan lita pelbagai bentuk semasa di dalam perimeter jenis pembangunan seperti kawasan tepu (tara semasa), pembangunan ka-ruhid, pulau-rupe, kawasan bersepadu sedile ada, cawangan laluan dan bersepadu bersepadu tertinggi, pelabuhan, dan lapangan terbang.

Pelan ini berstatut di sudut sebagai maklumat tambahan di dalam pelbagai sudut dan tempatan.

PETUNJUK

ZON PERTUMBUHAN

- Kawasan
- Zon Persekitaran Pembangunan
- Kawasan Kerdala
- Zon Agrikultur

CUNA TANAH

- Kawasan Pagar Rawa Ganda Suku
- Kawasan Asli (Malay) dan Kelipang Asli
- Kawasan Persekitaran Kemudahan Utama
- Kawasan Persekitaran Perikanan
- Kawasan Air

PENGAR GOUTAN

- Lapangan Terbang
- Pelabuhan
- Jalan Raya
- Laluan Laluan Bersepadu
- Laluan (OTR) Pelabuhan (Kang - Jarak Jauh)
- Cawangan Laluan Kereta Api Bersepadu (Stap)
- Cawangan Laluan Kereta Api Tempatan - Bersepadu (Kang)
- Zon-pulau dan bersepadu

MAKHLAK

1. Kemajuan Pembangunan dan Penyelenggaraan
 2. Penyelenggaraan dan Penyelenggaraan
 3. Penyelenggaraan dan Penyelenggaraan

Note :
 Refer to listing in Table 6.1

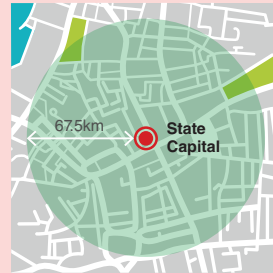
Box 6.2 Determinants of a Conurbation and Promoted Development Zone (PDZ)

Determining the boundary of a Conurbation and PDZ is conducted indicatively in which detailing at the state level must take place to ensure necessity and suitability of the indications. Determination of the Conurbation and PDZ boundary is viewed within the following aspects:

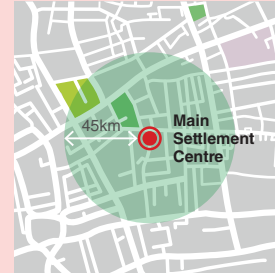
1

 Within the radius of state capital or other centres

Conurbation



PDZ



2

 Total current population based on mukim

Population between 1,000 - 10,000 people



Total population number exceeding **10,000 people** priority within the Conurbation formation

Whereas **1,000 people** for the Promoted Development Zone formation

3

 Total current employment based on mukim

Total employment exceeding **10,000 people** (priority within the Conurbation formation)

Employment less than **10,000 people** (second priority according to the situation in the Conurbation / PDZ formation)



4

 Existing and future development pattern

- Current built up;
- Future built up according to Development Plans;
- Future projects (Entry Point Projects, Malaysia Five Year Plan);
- Roads and existing railways; and
- National assets (forest and granary reserves).

5

 Economic activity connection between centres

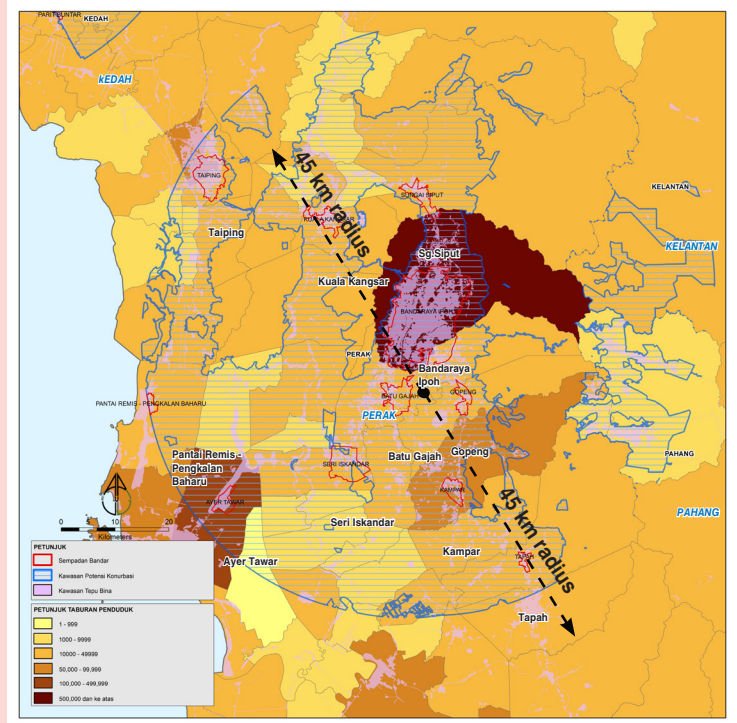
- Facility provision for economic activities within a wider catchment area and supports the function in both state and regional levels such as ports, airports, state financial centre and state administrative centre. These facility provisions form the economic activity connection between the centres and the agglomeration formation between centres.

Box 6.3 Example of Ipoh PDZ Boundary Determination

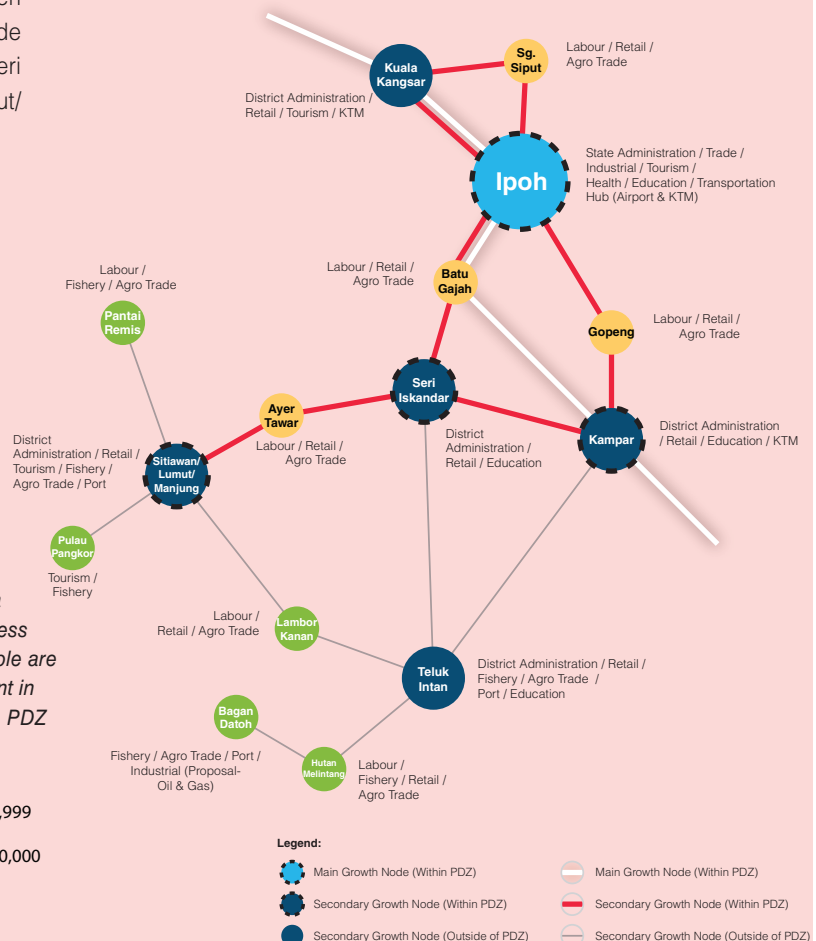
Determining the Ipoh PDZ boundary according to:

1. 45km radius from the State Capital of Ipoh: Centres involved are Ipoh, Sungai Siput, Kuala Kangsar, Taiping, Batu Gajah, Gopeng, Kampar, Seri Iskandar, Tapah, Ayer Tawar and Pantai Remis-Pengkalan Baharu;
2. Total existing population based on mukim: Most areas involved for each mukim contains more than 10,000 people;
3. Total existing jobs based on mukim: Most areas have more than 1,000 job opportunities;
4. Existing and future development pattern: Land use and existing as well as future transportation facilities availability such as Sultan Azlan Shah Airport and high speed rail (HSR) proposed alignment that functions as a main port of entry between states; and
5. Economic activity connections between centres: Ipoh as a main growth node and supported by Kuala Kangsar, Seri Iskandar, Kampar and Sitiawan/Lumut/Manjung.

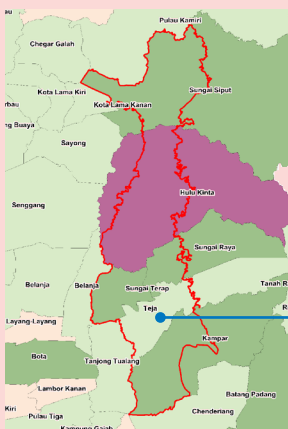
Existing Total Population Based on Mukim



Economic Activity Connections Between Centres

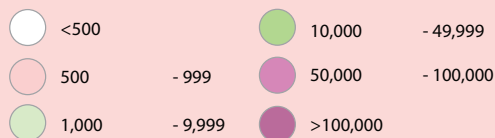


Existing Total Jobs Based on Mukim



Mukim that has a total population less than 10,000 people are taken into account in determining Ipoh PDZ

Employment Number Scale



COASTAL MANAGEMENT

The management and conservation of the coastline is a main aspect in the NPP-3. This is a continuation of the policy set in the NPP-2 that highlights the need to protect the coastal ecosystem and ensure any development taking place along the coastal zone is conducted in a sustainable manner.

The coastline area is separated into two (2) zones which are:

1. Coastal Protection Zone; and
2. Coastal Development Zone.

The Coastal Protection Zone is a zone that contains various habitat and natural ecology that must be protected and conserved. Any type of development is **not allowed**, whether in a land reclamation form or any other methods of development.

Coastal Development Zone is the area in which development can be considered, subject to the development method. Any development involving reclamation must be referred to the National Physical Planning Council (NPPC) and State Cabinet for Sabah State before the State Government considers the said development. This is primarily intended to mitigate the effects of reclamation on:

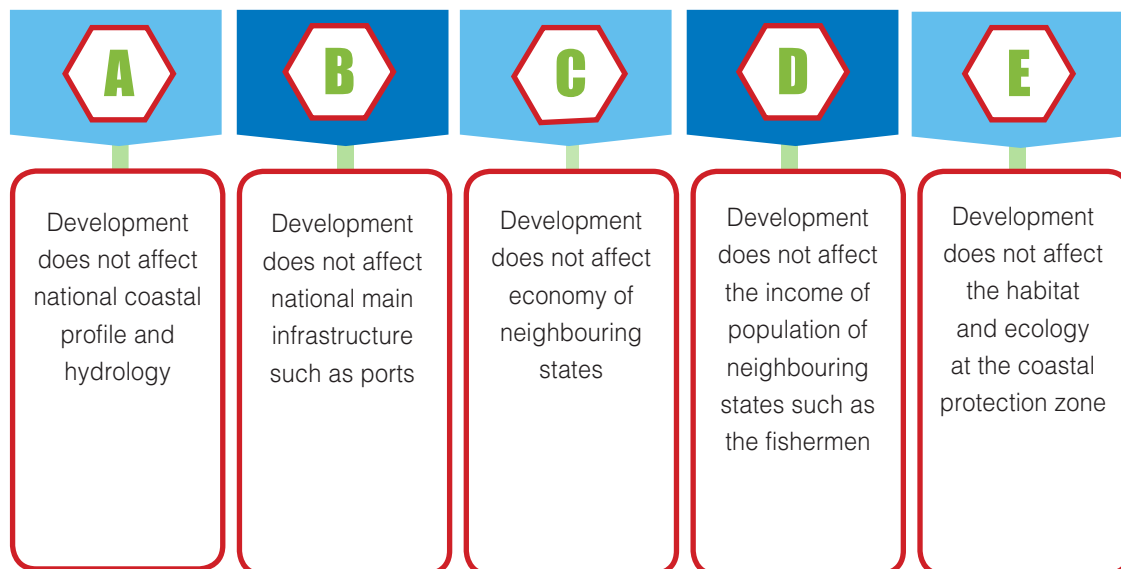


Table 6.2 Coastal Protection Zone and Coastal Development Zone

Characteristics	Coastal Protection Zone	Coastal Development Zone
Areas Involved	<ol style="list-style-type: none"> 1. Important habitat areas that are threatened is as stated in this document (Refer Figure 4.4): <ul style="list-style-type: none"> • Important Bird Area • Seagrass area • Turtle Landing Area • Wetlands with unique ecosystem 2. Environmentally Sensitive Coastal Zone Area (ESCZA) in the National Coastal Zone Physical Plan (NCZPP) involve: <ul style="list-style-type: none"> • Mangrove; • Mudflats; • Freshwater Mangrove Forest; • Peat Swamp Forest; • Inland Forest; • Seagrass; • Coral Reef; • Islands; • Turtle Hatchery Site; • Terrapin Area; • Important Bird Area; and • Fishing Prohibited Area. 3. Coastal ESA areas that have gazetted under the Structure Plan and Local Plan are classified as protection zones. 4. Important habitat in other studies will also be included in this protection zone. 	<ol style="list-style-type: none"> 1. Areas that do not possess any existing and future threat towards its habitat is stated in the NPP-3 and other studies. 2. Areas outside of the ESCZA as is stated in the National Coastal Zone Physical Plan and areas outside of the ESA that are stated in the Structure Plan and Local Plan. 3. Port areas or existing and future proposals of terminals. 4. Existing reclamation areas that have been approved by the State / Federal Government.
Management Method	<ol style="list-style-type: none"> 1. Natural surroundings at protection zones must be preserved to allow natural functions of the area to be functioning well. Any development including reclamations that can change the natural surrounding in this zone is strictly prohibited. 2. For areas that are affected due to coastal erosions, coastal protection works must be conducted to preserve this important habitat. 3. These coastal protection zones must be environmentally friendly including: <ul style="list-style-type: none"> • Coastal reclamation; • Replanting of mangrove trees in mangrove swamp areas; and • Geotextile tubes and others. 4. Any type of structured coastal protection that can change the natural condition of the area within this zone is prohibited. 	<ol style="list-style-type: none"> 1. Activities that are allowed along the coastal area can only be conducted 5 km inland and 3 nautical miles to the sea (source NCZPP, DTCP Peninsular Malaysia). 2. Ensuring that development areas are controlled and EIA reports are prepared fulfilling the safe, preserved, productive, pollutant free and minimal disruption to coastal assets criteria. 3. Development must refer to the framework of EIA, NCZPP, state ISMP as well as existing and future coastal guidelines. 4. Other than ensuring existing development conditions are met, any reclamation activity that obtains the advice of the NPPC must also take into account the following aspects: <ul style="list-style-type: none"> • Climate change impacts including the rise in sea level for a period no less than 100 years; • Conformity of the design with the shape of existing shoreline; • Usage of reclamation materials that is not contaminated which could negatively impact the natural habitat of the coast and sea; and • Passageway availability for locals to access the coastal area (except for areas that are off limits).

Perlis

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 81,372 hectares	Total population (2010): 226,000 people	Total population (2040 - based on NPP-3 projection): 380,000 people
Current built up area: 11,500 hectares	Total population (2015): 248,000 people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced and Integrated Growth and Development of Urban and Rural Areas

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Intensifying development in Kangar-Arau-Kuala Perlis PDZ, Padang Besar-Lembah Chuping PDZ as well as (Kaki Bukit-Wang Kelian, Beseri and Pauh Putra) Catalyst Centre;
- Enhancing the function of border towns (Wang Kelian and Padang Besar) and special towns (Arau as Bandar Diraja);
- Strengthening the Padang Besar port of entry - inland port at Lembah Chuping;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Increasing the value chain for agricultural activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Prioritising regional connectivity through new highways;
- Enhancing city connectivity through comprehensive public transportation system;
- Encouraging the use of ETS as the main railway system between towns (KL-Ipoh-Padang Besar route) within the regional integrated transportation system;
- Upgrading the ferry services (Kuala Perlis-Langkawi); and
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD).

Refer Chapter
3 and Chapter
4, Part
DG3,SR2 and
SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets .

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be focused in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Food source:

1 granary area

Total permanent forest reserve:

17 permanent forest reserves

Proposed forest reserve:

11 forest reserves

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

Refer
Chapter 4,
Part SR1

- Maintaining the granary area (MADA) - Part of Perlis Selatan;
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity);
- Gazetting natural habitat that are given less attention and are exposed to climate change; and
- Increasing self-sufficiency level in food commodities.

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

Refer
Chapter 4,
Part SR1 and
SR3

- Gazetting and protecting the upstream area of water basins to sustain source of water supply (Timah Tasoh Dam);
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

Refer
Chapter 4,
Part SR3

- Encouraging biogas and biomass energy in plantation areas;
- Providing solar energy land use development guidelines (Proposed at Lembah Chuping and Taman Teknologi Pauh Putra); and
- Increasing the use of other renewable energy sources such as air, mini hydro and hydro sources.

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is intended to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

4 main settlements

Total population affected by flood risk:

90.6 thousand people, 40% from total population

Perlis State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami and Flood Risk Occurance

- Involving main settlements which include parts of Beseri, Kangar and Arau.

Flood Risk Occurance

- Involving main settlement areas which include parts of Chuping, Arau, Pauh Putra and Kaki Bukit.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Kurong Batang PFR, Bukit Besi Hangit PFR and Bukit Bintang PFR.

Tsunami Risk Occurance

- Involving settlement areas located within 16km of the Perlis state coastline which include Kuala Perlis, Simpang Empat and parts of Arau.

PPS 3

Kedah

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 948,600.35 hectares	Total population (2010): 1.90 million people	Total population (2040 - based on NPP-3 projection): 2.84 million people
Current built up area: 113,500 hectares	Total population (2015): 2.09 million people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced and Integrated Growth and Development of Urban and Rural Areas

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Intensifying development in Alor Setar-Jitra PDZ and Sungai Petani PDZ as well as (Kuah, Bukit Kayu Hitam and Kulim) Catalyst Centre;
- Enhancing the function of border towns (Kota Putra dan Bukit Kayu Hitam);
- Strengthening the role of airports as the main urban economic catalyst (Langkawi International Airport);
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- Encouraging the use of ETS and other rail services as the main railway system between centres in an integrated regional transportation system;
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD) or smart growth;
- Developing water taxi and ferry services (Kuala Kedah-Langkawi); and
- Enhancing efficiency of logistics and supply chain management.

Refer Chapter
3 and Chapter
4, Part DG3,
SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets .

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Total coral reef area:

3 areas

Total seagrass area:

2 areas

Total habitat and terrapin hatchery sites:

3 sites

Marine park:

Pulau Payar Marine Park

Total national heritage site:

1 heritage site

Total permanent forest reserve:

37 permanent forest reserves

Important bird area:

Freshwater bay coastline

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Protecting coastal and marine habitats (seagrass) through the establishment of Marine Protected Areas Network;
- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS1-SL7, CFS1-SL8, CFS1-PL5 and CFS1-PL8;
- Maintaining the granary area (MADA);
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity);
- Gazetting natural habitat that are given less attention and are exposed to climate change;
- Gazetting and protecting forests at the upstream area of water basins and groundwater resources to maintain source of water supply; and
- Controlling land reclamation activities at coastal areas and Environmentally Sensitive Areas.

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is intended to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

7 main settlements

Total population affected by flood risk:

1.10 million people, 58% from total population

Kedah State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami and Flood Risk Occurance

- Involving main settlements which include most parts of Bandaraya Alor Setar and Sungai Petani.

Flood Risk Occurance

- Involving main settlement areas which include most parts of Jitra, Kuala Nerang, Bandar Baru Beris Jaya, Padang Serai, Kuala Ketil, Kupang and Bukit Selambau.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include most parts of Koh Moi PFR, Sungai Badak PFR, Bukit Perangin PFR, Bukit Perak PFR, Gunung Jerai PFR, Bukit Enggang PFR, Rimba Teloi PFR, Gunung Inas PFR and Gunung Bongsu PFR.

Coastal Erosion Risk Occurance

- Level 5: Along Tebengau, Kampung Kuala Sungai Dulang Kecil, Pulau Sayak and Pantai Merdeka; and
- Level 4: Kuala Sedeka and parts of Pantai Tebengau.

Tsunami Risk Occurance

- Involving settlement areas located within 16km of the Kedah state coastline which include Ayer Hitam, Kuala Kedah, Yan, Pendang, Guar Chempedak, Gurun, Sungai Lalang and Sungai Petani.

PPS 3

Pulau Pinang

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:

**104,616.22
hectares**

Current built up
area:

**62,500
hectares**

Total population
(2010):

**1.53 million
people**

Total population
(2015):

**1.66 million
people**

Total population
(2040 - based on
NPP-3 projection):

**2.06 million
people**

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in the Northern Conurbation;
- Enhancing competitiveness of George Town as a Regional Centre;
- Strengthening the role of airports as the main urban economic catalyst (Penang International Airport);
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Increasing the value chain for agricultural activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- Encouraging the use of ETS and other rail services as the main railway system between centres in an integrated regional transportation system;
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD) or smart growth;
- Developing water taxi and ferry services; and
- Enhancing efficiency of logistics and supply chain management.

Refer Chapter
3 and Chapter
4, Part DG3,
SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets .

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

National Park:

1 National Park

Food source:

2 granary areas

Total permanent forest reserve:

15 permanent forest reserves

Total water and energy source:

2 dams for water and energy source

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Protecting coastal and marine habitats (seagrass) through the establishment of Marine Protected Areas Network;
- Maintaining the IADA granary area (Pulau Pinang and Sungai Manik);
- Gazetting natural habitat that are exposed to climate change;
- Gazetting and protecting forests at the upstream area of water basins and groundwater resources to maintain source of water supply; and
- Controlling land reclamation activities at coastal areas and Environmentally Sensitive Areas.

Refer Chapter 4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter 4, Part SR1 and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, mini hydro and hydro sources.

Refer Chapter 4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for tsunami and flooding:

10 main settlements

Total population affected by flood risk:

593 million people, 39% from total population

Penang State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami and Flood Risk Occurance

- Involving main settlements which include Kepala Batas, Telok Air Tawar, Butterworth, Sungai Dua, Permatang Pauh, Seberang Jaya, Perda, Perai, most parts of Juru, Bukit Mertajam, Teluk Bahang and Batu Feringghi.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include Teluk Bahang PFR, Bukit Kerajaan PFR, Highland PFR, Laksamana PFR, Penara Bukit PFR, Bukit Relau PFR, small parts of Gelugor, Bukit Mertajam PFR and Bukit Seraya PFR.

Coastal Erosion Risk Occurance

- Level 5: Bagan Ajam coastline; and
- Level 4: Pantai Teluk Kumbar.

Tsunami Risk Occurance

- Involving settlement areas located within 16km of the Penang state coastline which include Tanjung Bungah, Tanjung Tokong, George Town, Ayer Itam, Gelugor, Sungai Nibong, Sungai Dua, Balik Pulau, Sungai Ara, Bayan Baru, Bayan Lepas, Juru, Bukit Mertajam, Simpang Empat, Tasik Mutiara, Jawi and Nibong Tebal.

PPS 3

Perak

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:
**2,090,417.33
hectares**

Total population
(2010):
**2.30 million
people**

Total population
(2040 - based on
NPP-3 projection):
**3.07 million
people**

Current built up area:
**151,000
hectares**

Total population
(2015):
**2.46 million
people**

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Intensifying development in Ipoh PDZ and Lumut-Sitiawan-Seri Manjung PDZ as well as Kamunting-Taiping, Lenggong, Teluk Intan, Gerik, Tanjung Malim and Parit Buntar Catalyst Centres;
- Strengthening the economic development of border towns such as Pengkalan Hulu;
- Strengthening the gateways such as Sultan Azlan Shah Airport, Ipoh Inland Port and Lumut Terminal as well as maritime port development at Bagan Datoh;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Developing Agropolitan Centres in Selama, Manong and Trolak;
- Increasing the value chain for agricultural, fishery and aquaculture activities; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and DG2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- Development of High Speed Rail: Kuala Lumpur-Ipoh-Butterworth;
- Encouraging the use of rail services as the main railway system between centres in an integrated regional transportation system; and
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD).

Refer Chapter
3 and Chapter
4, Part DG3,
SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets .

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Total important bird area:

3 areas

Total turtle landing site:

1 beach

Total water and energy source:

11 dams

Total coral reef area:

1 area

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Maintaining the granary area - IADA Sungai Manik and IADA Seberang Perak;
- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS1-PL5, CFS1-PL4, CFS1-PL8, CFS1-PL2, CFS1-SL3 and CFS1-PL9;
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity);
- Enhancing Permanent Food Production Parks (PFPPs) for vegetables and fruits and Aquaculture Industrial Zones (AIZs);
- Gazetting natural habitat that are exposed to climate change; and
- Ensuring sustainable management and development of mineral sources (mining activities).

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

12 main settlements

Total population affected by flood risk:

1.30 million people, 57% from total population

Perak State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami and Flood Risk Occurance

- Involving main settlements which include Bandar Baru Seri Manjung, Bagan Datoh, Pantai Remis-Pengkalan Baharu and a small part of Taiping.

Flood Risk Occurance

- Involving main settlement areas which include Slim River, Sungkai, Langkap, Teluk Intan, Bidor, Tapah, Seri Iskandar, Kampung Gajah, Kampar, Kuala Kangsar, Lenggong and Gerik.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include Bukit Slim PFR, Bukit Tapah PFR, Teja PFR, Temenggor PFR and Bintang Hijau PFR.

Coastal Erosion Risk Occurance

- Level 5 : Kuala Gula and Selinsing area; and
- Level 4 : Tanjung Piandang, Kuala Kurau, Bagan Datoh and Pengkalan Baharu.

PPS 3

Kelantan

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:
1,502,717.42 hectares

Current built up area:
104,400 hectares

Total population (2010):
1.47 million people

Total population (2015):
1.75 million people

Total population (2040 - based on NPP-3 projection):
2.49 million people

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Intensifying development in Kota Bharu PDZ and (Gua Musang, Tumpat, Tok Bali, Jeli, Rantau Panjang and Machang) Catalyst Centre;
- Enhancing the function of border towns (Tumpat, Rantau Panjang, Pengkalan Kubor and Bukit Bunga);
- Strengthening the role of proposed sea port (Tok Bali Terminal);
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Developing Kuala Krai, Tanah Merah and Lojing as Agropolitan Centres;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter 3, Part DG1 and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Prioritizing regional connectivity through East Coast Expressway (LPT3);
- Enhancing urban connectivity through integrated public transportation system that encourages the use of low carbon public transportation modes;
- Developing railway transportation network that connects the East Coast Region to Kuala Lumpur; and
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD) or smart growth.

Refer Chapter 3 and Chapter 4, Part DG3, SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter 5, Part IC1 and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter 4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Ecological corridor at risk:

3 corridors

Total area of seagrass habitat:

3 areas of seagrass habitat

Total permanent forest reserve:

34 permanent forest reserves

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

Refer Chapter
4, Part SR1

- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS1-PL3: HS Lojing-HS Sg. Brok, and CFS1-SL6: National Park - Chiku Forest Reserve;
- Maintaining the granary area (IADA) Kemasin-Semerak and Kemubu (KADA);
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity); and
- Gazetting natural habitat that are exposed to climate change.

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

Refer Chapter
4, Part SR1
and SR3

- Gazetting and protecting the upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

Refer Chapter
4, Part SR3

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

17 main settlements

Total population affected by flood risk:

1.32 million people, 90% from total population

Kelantan State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Flood Risk Occurance

- Involving main settlements which include Tumpat, Pengkalan Chepa, Kota Bharu, Wakaf Bharu, Kubang Kerian, Bachok, Jelawat, Pasir Mas, Rantau Panjang, Ketereh, Kok Lanas, Tanah Merah, Machang, Pasir Puteh, Jeli, Kuala Krai and Gua Musang.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Gunung Stong PFR, Gunung Basor PFR, Sungai Rek PFR, Sungai Durian PFR, Chabang Tongkat PFR, Ulu Sat PFR, Jedok PFR, Bukit Akar PFR, Sungai Tran PFR, Lojing PFR, Sungai Betis PFR, Gunung Rabong PFR, Ulu Galas PFR, Sungai Brok PFR and Nenggiri PFR.

Coastal Erosion Risk Occurance

- Level 5 : Tumpat coastal area; and
- Level 4 : Around Sungai Semerak estuary and Pantai Kemayan coastal area.

PPS 3

Terengganu

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:
**1,295,946.26
hectares**

Total population
(2010):
**1.01 million
people**

Total population
(2040 - based on
NPP-3 projection):
**2.30 million
people**

Current built up
area:
**40,100
hectares**

Total population
(2015):
**1.15 million
people**

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Intensifying development in Kuala Terengganu PDZ and (Jertih, Kerteh and Chukai) Catalyst Centre;
- Strengthening the role of Sultan Mahmud Airport and Kemaman sea port as main urban economic catalysts;
- Levelling up the value chain for the industrial activities and services;
- Encourage preservation and redevelopment of urban areas;
- Develop Setiu as an Agropolitan Centre;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Prioritizing regional connectivity through East Coast Expressway (LPT3);
- Enhancing urban connectivity through integrated public transportation system that encourages the use of low carbon public transportation modes;
- Developing railway transportation network that connects the East Coast Region to Kuala Lumpur;
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD) or smart growth; and
- Developing water taxi and improving ferry services.

Refer Chapter
3 and Chapter
4, Part
DG3, SR2 and
SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

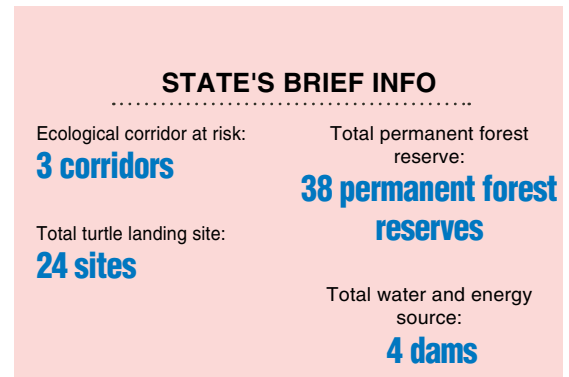
Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets .

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.



Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS1-SL5, CFS1-PL7 and CFS1-SL4;
- Protecting coastal and marine habitats through the establishment of Marine Protected Areas Network;
 - a) Turtle landing sites at Chakar Hutang, Penarik, Telaga Papan, Galiga and Pantai Kijal
 - b) Terengganu Marine Park - Setiu Wetland
- Maintaining the IADA granary area Terengganu Utara (KETARA);
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity); and
- Establishing Special Management Area in Setiu Wetland to overcome climate change impacts.

Refer
Chapter 4,
Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting forests in the upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aimed to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts are an important factor in planning and making development-related decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

27 main settlements

Total population affected by flood risk:

1.00 million people, 99% from total population

Terengganu State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter 4,
Part SR2

Flood Risk Occurrence

- Involving main settlement areas which include Kuala Besut, Kampung Raja, Jertih, Pasir Akar, Kampung Renek, Kampung Fikri, Penarik, Setiu, Merang, Bandar Permaisuri, Bandar Al-Watiqu Billah, Kuala Terengganu, Bukit Payung, Marang, Ajil, Kuala Berang, Merchang, Dungun, Bukit Besi, Paka, Bandar Al-Muktafi Billah Shah, Kerteh, Kemasik, Seri Bandi, Kijal, Chukai and Cheneh Baru.

Landslide Risk Occurrence

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Lata Tembakah Tropical Forest, Jerangau PFR, Bukit Terendak PFR, Rasau Kertih PFR and Bukit Sai PFR.

Coastal Erosion Risk Occurrence

- Level 5: Kuala Besut, Kampung Merang, Gong Badak and Dungun coastal area; and
- Level 4: Teluk Ketapang, Chendering-Marang, Sura, Kuala Sungai Paka, and Kuala Sungai Kerteh coastal area.

Pahang

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 3,594,593.45 hectares	Total population (2010): 1.44 million people	Total population (2040 - based on NPP-3 projection): 2.36 million people
Current built up area: 122,500 hectares	Total population (2015): 1.60 million people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in the Eastern Conurbation and Catalyst Centres (Temerloh-Mentakab, Bentong, Bandar Tun Abdul Razak (Jengka) and Bandar Muadzam Shah);
- Enhancing the economic development of state border towns such as Gebeng-Chukai and Tg. Gemuk-Endau;
- Strengthening the role of airports as the main urban economic catalyst (Sultan Haji Ahmad Shah Airport);
- Strengthening the role of ports of entry (Kuantan Port) as the main economic catalyst;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Developing Raub, Kuala Lipis and Kuala Rompin as Agropolitan Centres;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter 3, Part DG1 dan DG2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- Developing railway transportation network that connects the East Coast Region to Kuala Lumpur;
- Encouraging the use of rail services as the main railway system between centres in an integrated regional transportation system;
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD); and
- Strengthening ferry services (Tg. Gemuk-Pulau Tioman).

Refer Chapter 3 and Chapter 4, Part DG3, SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter 5, Part IC1 dan IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter 4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Ecological corridor at risk:

9 corridors

Total food source area:

3 areas

Total seagrass area:

1 area

Important bird area:

2 areas

Total permanent forest reserve:

66 permanent forest reserves

Total turtle landing site:

4 sites

Total coral reef area:

6 areas

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS 1-SL2: Krau Wildlife Reserve - Bencah Forest Reserve - Som Forest Reserve - Yong Forest Reserve, CFS2-PL4: Sungai Marong Forest Reserve - Bukit Ibam Forest Reserve - Lesong Forest Reserve, and CFS2-SL2: Chini Forest Reserve - Lepar Forest Reserve;
- Protecting coastal and marine habitats (seagrass) through the establishment of Marine Protected Areas Network;
- Maintaining the granary area (Pekan IADA and Rompin IADA);
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity);
- Enhancing Permanent Food Production Parks (PFPPs) for vegetables and fruits and Aquaculture Industrial Zones (AIZs); and
- Ensuring sustainable development and management of mineral resources.

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part KD3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:
9 main settlements

Total population affected by flood risk:
1.27 million people, 88% from total population

Pahang State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Flood Risk Occurance

- Involving main settlement areas which include Kuantan, Pekan, Kuala Lipis, Jerantut, Mentakab, Temerloh, Bentong, Karak and Bera-Triang.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Gunung Aais PFR, Persit PFR, Ulu Jelai PFR, Satak PFR, Sungai Sia PFR, Bukit Kajang PFR, Kelau PFR, Lakum PFR, Lentang PFR, Kemasul PFR, Lepar PFR, Remeh Chereh PFR, Batu Beras PFR, Tekam PFR and main settlement areas with heights exceeding 300m which include Tanah Rata-Brinchang, Sungai Koyan, Bentong, Karak and Sri Jaya.

Coastal Erosion Risk Occurance

- Level 4 : CheroK Paloh coastal area.

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PPS 3

Selangor, Wilayah Persekutuan Kuala Lumpur and Putrajaya Federal Territory

SPATIAL GROWTH FRAMEWORK

This framework is intended to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:	Total population (2010):	Total population (2040 - based on NPP-3 projection):
825,574.92 hectares	7.00 million people	11.90 million people
Current built up area:	Total population (2015):	
232,800 hectares	7.96 million people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in the National Conurbation and Kuala Selangor Catalyst Centre;
- Enhancing urban competitiveness - Kuala Lumpur City Centre as a Global City;
- Strengthening the role of entry points in airports and sea ports as the main urban economic catalyst;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter 3, Part DG1 and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through integrated public transportation system that encourages the use of low carbon public transportation modes;
- Developing integrated public transportation projects (LRT, MRT and BRT);
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD); and
- Strengthening ferry services (Klang Port - Indonesia) and developing water taxi in Putrajaya Federal Territory.

Refer Chapter 3 and Chapter 4, Part DG3, SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter 5, Part IC1 and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter 4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Food source:

**1 granary
area**

Total permanent forest reserve:

**35 permanent forest
reserve**

Total water and energy source:

6 dams

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS2-SL3: Raja Musa Forest Reserve - Bukit Tarek Forest Reserve - Bukit Gading Forest Reserve;
- Maintaining the granary area (**IADA Barat Laut Selangor**);
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity); and
- Controlling land reclamation activities at coastal areas and Environmentally Sensitive Areas.

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

16 main settlements

Total population affected by flood risk:

6.66 million people, 95% rom total population

Selangor State, Kuala Lumpur Federal Territory and Putrajaya Federal Territory Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami and Flood Risk Occurance

- Involving main settlements which include Sungai Besar, Tanjung Karang, Kuala Selangor and small parts of Ijok, Klang and Banting.

Flood Risk Occurance

- Involving main settlement areas which include Kuala Kubu Bharu, Rawang, Sri Gombak, Hulu Kelang, Ampang Jaya, Petaling Jaya, Shah Alam, Puchong, Subang Jaya, Cheras Selatan, Kajang, Seri Kembangan, Semenyih, Bandar Baru Bangi, Cyberjaya, Dengkil, Kuala Lumpur Federal Territory and Putrajaya Federal Territory.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Gading PFR, Semangkuk PFR, Ampang Pechah PFR, Hulu Selangor PFR, Bukit Kutu PFR, Batang Kali PFR, Bukit Lagong PFR, Hulu Langat PFR, Ampang PFR and Sungai Lalang PFR.

Tsunami Risk Occurance

- Involving settlement areas located within 16km of the state coastline which include Sabak Bernam, Sekinchan, Puncak Alam, Kapar, Meru and Telok Panglima Garang.

Coastal Erosion Risk Occurance

- Level 5 : Kuala Bernam coastal area, parts of Pantai Kuala Selangor, Klang Port, Jugra, Morib, Tanjung Sepat and Sepang coastline; and
- Level 4 : Parts of Pantai Jugra coastal area.

PPS 3

Negeri Sembilan

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state:	Total population (2010):	Total population (2040 - based on NPP-3 projection):
666,451.10 hectares	986 thousand people	2.75 million people
Current built up area:	Jumlah penduduk (2015):	
81,553 hectares	1.09 million people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in Seremban-Nilai-Port Dickson (MVV) PDZ and (Gemas, Tampin and Seri Jempol) Catalyst Centres;
- Strengthening the ports of entry - Port Dickson Terminal and Nilai Inland Port;
- Enhancing urban efficiency through economic agglomeration;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Developing Kuala Klawang as an Agropolitan Centre;
- Increasing the value chain for agricultural activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter 3, Part DG1 and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- Development of high speed rail (HSR) and proposed HSR station in Labu;
- Encouraging the use of ETS and other rail services as the main railway system between centres in an integrated regional transportation system; and
- Encouraging integrated land use with transportation planning such as transit oriented development (TOD) .

Refer Chapter 3 and Chapter 4, Part DG3,SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter 5, Part IC1 and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter 4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Ecological corridor at risk:

2 corridors

Total seagrass area:

4 areas

Total permanent forest reserve:

22 permanent forest reserves

Total coral reef area:

1 area

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Gazetting natural habitat that are given less attention and are exposed to climate change;
- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS-SL7;
- Strengthening conservation area network (including State Park); and
- Protecting coastal and marine habitats (mangrove, coral reefs and seagrass) through the establishment of Marine Protected Areas Network to ensure the sufficient supply of sea food.

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:
7 main settlements

Total population affected by flood risk:
609 thousand people, 62% from total population

Negeri Sembilan Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Flood Risk Occurance

- Involving main settlement areas which include Batu Kikir, Bahau, Kuala Pilah, Gemas, Rembau, Telok Kemang and parts of Nilai.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Kenaboi PFR, Pasoh PFR, Triang PFR, Serting PFR, Lenggeng PFR, Berembun PFR, Setul PFR, Pelangai PFR, Galah PFR, Angsi PFR, Senaling Inas PFR, Gunung Tampin PFR and Tebong PFR.

Coastal Erosion Risk Occurance

- Level 4 : Parts of Pantai Kuala Sungai Lukut Besar and Kuala Sungai Lukut Kecil coastal area.

PPS 3

Melaka

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 165,606.29 hectares	Total population (2010): 790 thousand people	Total population (2040 - based on NPP-3 projection): 1.14 million people
Current built up area: 45,600 hectares	Total population (2015): 882 thousand people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in Melaka PDZ and (Pulau Sebang, Kuala Linggi and Sungai Rambai) Catalyst Centres;
- Enhancing the role of centres - Bandar Melaka as a World Heritage City;
- Strengthening the role of entry ports such as Melaka Airport and coastal terminals;
- Levelling up the value chain for the industrial activities and services;
- Encouraging preservation and redevelopment of urban areas;
- Increasing the value chain for agricultural activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Construction proposal of West Coast Highway;
- Enhancing urban connectivity through public transportation system;
- High Speed Rail (HSR) proposal and Ayer Keroh HSR station;
- ETS proposal - Pulau Sebang/Tampin and Batang Melaka ETS stations;
- Developing water taxi and strengthening ferry services (Melaka- Indonesia); and
- Increasing the role of ports and airports in the local and regional level.

Refer Chapter
3 and Chapter
4, Part
DG3,SR2 and
IC3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Total water and energy source:

4 dams

Total turtle landing site:

11 sites

Total seagrass area:

3 areas

Total permanent forest reserve:

5 permanent forest reserves

Important bird area:

1 areas

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Protecting coastal and marine habitats through the establishment of Marine Protected Areas Network (Turtle landing sites in Pulau Upeh, Padang Kamunting, Pasir Gembur, Pantai Kem Terendak and Kuala Sungai Baru surrounding area);
- Gazetting natural habitat that are given less attention and are exposed to climate change; and
- Increasing self-sufficiency level in food commodities (paddy, fruits, vegetables and such).

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Monitoring the groundwater extraction in Bemban and Jasin;
- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

7 main settlements

Total population affected by flood risk:

625 thousand people, 79% from total population

Melaka State Natural Disaster Risk Area

- Implementing Environmentally Friendly Drainage Manual (MSMA) guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Flood Risk Occurance

- Involving main settlement areas which include Alor Gajah, Durian Tunggal, Batu Berendam, Cheng, Bandaraya Melaka Bersejarah, Jasin and Kuala Linggi.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include parts of Batang Melaka PFR and Senggeh PFR.

Coastal Erosion Risk Occurance

- Level 4 : Part of Pantai Pengkalan Balak coastal area and Kuala Sungai Baru creek.

PPS 3

Johor

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 1,919,204.37 hectares	Total population (2010): 3.23 million people	Total population (2040 - based on NPP-3 projection): 4.68 million people
Current built up area: 195,100 hectares	Total population (2015): 3.55 million people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Enhancing the role of Iskandar Malaysia Regional Development Corridor;
- Accelerating development in the Bandar Maharani Bandar Diraja PDZ and Bandar Penggaram-Kluang PDZ as well as (Segamat and Mersing) Catalyst Centres;
- Enhancing urban competitiveness - Bandaraya Johor Bahru as a Regional Centre;
- Strengthening the role of entry ports - Sultan Ismail International Airport, Senai, Segamat Inland Port, Tanjung Pelepas Port, Pasir Gudang Port and Tanjung Langsat Port;
- Encouraging preservation and redevelopment of urban areas;
- Developing Bandar Tenggara as an Agropolitan Centre; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through public transportation system;
- HSR proposal - HSR stations in Muar, Batu Pahat and Nusajaya;
- ETS with stations in Segamat, Generang Labis, Bekok, Paloh, Kluang, Mengkibol, Rengam, Layang-Layang, Kepas Baru, Kulai and Johor Bahru;
- Developing water taxi and strengthening ferry services; and
- Enhancing local and regional air connectivity through Sultan Ismail International Airport, Senai.

Refer Chapter
3 and Chapter
4, Part
DG3, SR2 and
SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services; and
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

PPS 1

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

STATE'S BRIEF INFO

Important bird area:

2 areas

Total water and energy source:

15 dams

Total turtle landing site:

4 areas

Total coral reef area:

14 areas

Total seagrass area:

15 areas

Risk ecological corridor:

4 corridors

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Strengthening CFS initiatives and effectiveness of forest network ecological corridor mainly within CFS2-SL5: Panti Forest Reserve - Kuala Sedili Forest Reserve;
- Protecting coastal and marine habitats (seagrass) through the establishment of Marine Protected Areas Network;
- Improving irrigation infrastructure in all granary areas and areas outside of granary areas (JPS scheme) to allow for cultivation to take place twice a year (200% intensity);
- Kawasan Taman Kekal Pengeluaran Makanan (TKPM) untuk sayuran dan buah-buahan dan bilangan Zon Industri Akuakultur perlu dipertingkatkan;
- Gazetting natural habitat that are given less attention and are exposed to climate change; and
- Ensuring sustainable development and management of mineral resources (mining activities).

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

26 main settlements

Total population affected by flood risk:

2.92 million people, 90% from total population

Johor State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Flood Risk Occurance

- Involving main settlement areas which include Buloh Kasap, Batu Anam, Segamat, Bukit Kepong, Bukit Gambir, Pagoh, Bukit Bakri, Bandar Maharani Bandar Diraja, Parit Sulong, Yong Peng, Bandar Penggaram, Parit Raja, Air Hitam, Pontian Kechil, Pekan Nenas, Kulai, Senai, Skudai, Iskandar Puteri, Johor Bahru, Kota Tinggi, Mawai, Tanjung Sedili, Jemaluang and Mersing.

Landslide Risk Occurance

- Involving Permanent Forest Reserve (PFR) areas with heights exceeding 300m which include Gunung Ledang National Park.

Coastal Erosion Risk Occurance

- Level 5: Pantai Kukup, Tanjung Piai coastal area and Sungai Pulai creek, and
- Level 4: Along Pantai Tanjung Balau, Sungai Pendas coast to Sungai Pulai creek, Pontian Kechil, Pantai Ayer Baloi, Pantai Punggor, and Sungai Balang to Sungai Batu Pahat creek.

PPS 3

Sabah

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Enhancing the role of Sabah Development Corridor;
- Accelerating development in Kota Kinabalu Conurbation, (Sandakan, Lahad Datu, Keningau and Tawau) PDZ as well as (Ranau, Kota Belud, Kudat, Kota Kinabatangan, Tongod, Semporna, Tenom, Kimanis, Beaufort and Sipitang) Catalyst Centre;
- Enhancing competitiveness of Bandaraya Kota Kinabalu as a Regional Centre;
- Levelling up the added value of industrial activities in small and medium towns;
- Strengthening the ports of entry such as airports (Kota Kinabalu International Airport) and sea ports (Sepanggar Port and other sea ports);
- Developing Agropolitan Centres in Sabah;
- Increasing the value chain for agricultural, fishery and aquaculture activities;
- Strengthening the economic activity chain between urban and rural areas; and
- Expanding the development of infrastructure at rural areas.

Refer Chapter
3, Part DG1
and DG2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Prioritizing regional connectivity through the Pan Borneo Highway;
- Enhancing urban connectivity through integrated public transportation system that encourages the use of low carbon public transportation modes;
- Encouraging the use of rail services as the main railway system between centres in an integrated regional transportation system; and
- Developing water taxi and ferry services.

Refer Chapter
3 and Chapter
4, Part DG3,
SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter
5, Part IC1
and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter
4, Part SR3

STATE'S BRIEF INFO

Total population (2010):

3.12 million people

Total population
(2040 - based on
NPP-3 projection):

**6.0 million
people**

Total population (2015):

3.74 million people

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

Refer Chapter
4, Part SR1

- Strengthening the Heart of Borneo initiative to enhance the efficiency of forest network ecological corridor in Sabah and Sarawak;
- Protecting coastal and marine habitats (mangrove areas, coral reef and seagrass) through the establishment of Marine Protected Areas Network such as developing cross-border ecological corridor in the Coral Triangle;
- Maintaining the physical granary area (Kota Belud IADA);
- Gazetting natural habitat that are given less attention and are exposed to climate change; and
- Improving self-sufficiency levels in food commodity (paddy, fruits, vegetables, fisheries and livestock).

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

Refer Chapter
4, Part SR1
and SR3

- Gazetting and protecting the forest upstream area of water basins to sustain source of water supply;
- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water;
- Developing groundwater resource; and
- Managing groundwater resources to ensure water availability.

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

Refer Chapter
4, Part SR3

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

8 main settlements

Total population affected by flood risk:

687 thousand people, 22% from total population

Sabah State Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters;
- Controlling development on hills and highlands; and
- Increasing readiness in facing earthquakes.

Refer Chapter
4, Part SR2

Landslide and Earthquake Risk Occurance

- Involving main settlement area in Ranau.

Tsunami and Flood Risk Occurance

- Involving main settlement areas which include Kota Marudu, Kota Belud, Tuaran and Papar.

Tsunami and Earthquake Risk Occurance

- Involving main settlement areas which include Kunak and Lahad Datu.

Flood Risk Occurance

- Involving main settlement areas which include Kuala Penyu, Putatan, Kota Kinabalu, Kudat, Pitas, Kinabatangan, Sandakan, Semporna and Tawau.

PPS 3

Federal Territory of Labuan

SPATIAL GROWTH FRAMEWORK

This framework is aim to efficiently manage the growth area and ease the proposal application for future land use development. Growth areas that are divided into four (4) main areas which are the Conurbation area, Promoted Development Zone (PDZ), Catalyst Centres and Agropolitan Centres function as catalyst hubs for economic development at regional and national levels.

STATE'S BRIEF INFO

Total area of state: 9,542 hectares	Total population (2010): 83.9 thousand people	Total population (2040 - based on NPP-3 projection): 140 thousand people
Current built up area: 4,068 hectares	Total population (2015): 94.6 thousand people	

Note: Area of state boundary is based on state boundary GIS data obtained from JUPEM. The area for states may differ from the actual area due to the difference in GIS data. However, the difference is marginal in nature and could be accepted for macro spatial analysis.

Balanced Urban Growth and Holistic Land Use Development

Strengthening the role of cities as a development catalyst and encouraging integrated development at rural areas to stimulate balanced and strong economic growth

- Accelerating development in the Labuan PDZ;
- Strengthening the role of entry ports at airports and sea ports as the main urban economic catalyst;
- Levelling up the value chain for the industrial activities and services; and
- Encouraging preservation and redevelopment of urban areas.

Refer Chapter 3, Part DG1 and SR2

Increased and Sustainable Connectivity and Access

Enhancing level of accessibility and supporting economic growth through comprehensive development of connectivity and transportation network

- Enhancing urban connectivity through integrated public transportation system that encourages the use of low carbon public transportation modes;
- Developing water taxi and ferry services (Labuan International Ferry Terminal);
- Enhancing efficiency of logistics and supply chain management; and
- Developing Labuan port to tap into new markets in BIMP-EAGA.

Refer Chapter 3 and Chapter 4, Part DG3, SR2 and SR3

Inclusive Community Development

Encouraging community involvement in enhancing the living quality of the surrounding including the neighbourhoods and public spaces

- Providing affordable housing readiness for B40 and M40 household target groups in urban areas;
- Providing access and improving quality of community facilities including schooling facilities and health services;
- Establishing community cohesion through the strengthening of culture and making the public space a living space.

Refer Chapter 5, Part IC1 and IC2

Coastal Development and Protection

Ensuring controlled coastal development in protecting and reducing disruptions on the coastal assets

- Protecting and preserving coastal areas as well as islands that have various biological importance and plays a role in economic and social aspects; and
- Controlling land reclamation activities at coastal areas and environmentally sensitive areas.

Refer Chapter 4, Part SR3

RESOURCE MANAGEMENT

Natural resource areas involving forest areas, natural habitats, water and mineral sources, agriculture areas for food production as well as natural heritage and archaeological areas are national assets that play significant roles in the support system of Malaysians. Therefore, these areas need to be observed in conservation and preservation efforts to ensure that benefits from these areas exist in the future.

Sustainable Management of Natural Resources, Food Resources and Heritage Resources

Strengthening the management of natural resources, food resources and heritage resources of the nation to enhance the role and functions of resources as a national asset in supporting the social and economic development

- Protecting coastal and marine habitats through the establishment of Marine Protected Areas Network;
- Gazetting natural habitat that are exposed to climate change; and
- Increasing self-sufficiency level in food commodities.

Refer Chapter
4, Part SR1

Sustainable Management of Water Resource

Increasing the security and sustainability of water resource to accommodate and support the economic and social development in the long term

- Increasing the quality of water resource in producing sustainable water supply;
- Implementing reuse of water; and
- Managing water resources to ensure water availability.

Refer Chapter
4, Part SR1
and SR3

Low Carbon City and Sustainable Infrastructure

Synchronizing development with long term planning to increase national resilience through the use of relevant technology

- Encouraging biogas and biomass energy in plantation areas; and
- Increasing the use of other renewable energy sources such as air, solar energy, mini hydro and hydro sources.

Refer Chapter
4, Part SR3

PPS 2

MANAGEMENT OF NATURAL DISASTER RISK AREAS

Identification of natural risk areas is aim to provide detailed indication in development planning. This detailed analysis must be conducted at state and local authority development planning and approval. Natural disaster impacts is an important factor in planning and making development - related to decisions.

STATE'S BRIEF INFO

Number of settlements expected to be at risk for flooding:

The whole area of Labuan

Total population affected by flood risk:

94.6 thousand people, 100% from total population

Labuan Federal Territory Natural Disaster Risk Area

- Implementing Urban Storm Water Management guidelines for urban and rural areas that are prone to flooding;
- Ensuring effective development management in flood-prone areas;
- Implementing flood mitigation measures to protect rural areas from flooding;
- Implementing flood management plan through land use planning (in preparing State Structure Plan and Local Plan) and drainage infrastructure provision;
- Ensuring coastal development planning and protection takes into consideration the impacts of climate change and environmental disasters; and
- Controlling development on hills and highlands.

Refer Chapter
4, Part SR2

Tsunami Risk Occurance

- Involving main settlements in the whole area of Labuan Federal Territory.

PPS 3