2.0 REGIONAL STRUCTURE

2.1 INTRODUCTION

This chapter highlights the development planning that is related to the policy and strategy, program, procedure and related development control. The government policy and legislation were used as a reference for controlling and monitoring purposes. The development process need a lot of effort in order to make sure that every step taken is right.

2.1.1 PURPOSE OF THE STUDY

i. To identify and analyze the current policy and legislations related to the development of resources in Dungun District.

ii. To identify the positioning of Terengganu in general and district of Dungun in particular, relation to the regional and national development context.

2.1.2 POLICY AND LEGISLATION

Policy is a plan of action to guide decisions and actions. The term may apply to government, private sector organizations and groups, and individuals. The policy process includes the identification of different alternatives, such as programs or spending priorities, and choosing among them based on the impact they will have.

2.1.3 POSITIONING OF TERENGGANU

The East Coast is a part of Peninsular Malaysia in Malaysia, which includes Kelantan, Terengganu and Pahang. The East's prime attractions are some of its islands, featuring great beaches and excellent scuba diving. It is also the most culturally conservative part of Malaysia. The economy is largely based on agriculture. According to ECER, several corridors are identified for the development. These corridors have their focus. The purposes of these corridors are to coalesce the initiatives in the corridors and identified the main project and future potential development.

Figure 2.1: The East Coast Corridors and its division of sectors by ECER.
From the East cost Corridors map, it shows that Terengganu is the most suitable area for tourism development compare to other region. It is because of the resources in Terengganu, which contains coastal, and island, forest, agriculture, cultural and heritage. Below is the positioning of Terengganu between the other regions of East Coast of Peninsular Malaysia:

Table 2.1: The positioning of Terengganu among the region, through the planning of resources. (Source: ECER).

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>KELANTAN</th>
<th>TERENGGANU</th>
<th>PAHANG</th>
</tr>
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<tbody>
<tr>
<td>CORRIDOR</td>
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<tr>
<td>East Coast Corridor</td>
<td>East Coast Corridor</td>
<td>East Coast Corridor</td>
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<tr>
<td>East-West Corridor</td>
<td>Lumut – Gua Musang</td>
<td>East-West Corridor</td>
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<tr>
<td>North – South Corridor</td>
<td>Lumut – Gua Musang - Kuala Terengganu Corridor</td>
<td>Central Corridor</td>
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<tr>
<td>Lumut - Gua Musang - Kuala Terengganu Corridor</td>
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<td>North-South Corridor</td>
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<td></td>
<td></td>
<td>Kuantan-Segamat-Melaka Corridor</td>
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</tbody>
</table>

**TOURISM**: Promoting towards island and coastal area tourism, ecotourism, and cultural and heritage tourism

- Commercial area at Kota Bharu Waterfront
- Islamic Cultural Centre
- East Coast Tourism Hub
- Tourism Gateway to ECER (Pusat Bandar Kuala Terengganu)
- Observatori Penyu Marin at Rantau Abang
- Highest Waterfall at Cheremong.

**AGRICULTURE**: Concentration towards commercial plantation, application of modern plantation technique and constructing global network

- Pergau Aquaculture
- Taman Kekal Pengeluaran Makanan (TKPM) - Lojing
- Kenyir Aquaculture
- Citrus Valley, Dungun
- Taman Kekal Pengeluaran Makanan (TKPM) Fruits – Ulu Tembeling & Lanchang
- Pineapple Park, Pekan – Rompin

**OIL, GAS AND PETROCHEMICAL**: Concentration towards industry hiliran to enhance productivity, develop plastic industry and promoting establishment of IKS

- _ Kerteh – Gebeng as a Petrochemical Hub

**MANUFACTURING**: promoting new industry, which can generate participation opportunity, job and income to local people.

- _ Batik and silver production at Kota Bharu
- _ Main centre for Songket production at Chendering
- _ Wood engraving at Besut

**EDUCATION**: Concentration towards human morality and human resource development to fulfill marketing needs.

- _ UMK, Bachok and UiTm, Machang
- _ UDM Besut, UiTM Dungun, UMT K.T
- _ Proposal of Taman Ilmu, Besut
- _ Global Animation Centre (Kuala Terengganu)
- _ International Digital Business Exchange (IDBX), Batu Rakit
- _ Tenun at Pekan
- _ Wood engraving at Temerloh
2.2 DUNGUN DISTRICT

Dungun is a coastal district of the Terengganu State, which contained many resources such as natural, man-made, cultural and heritage. This district has an area of 273,503 ha and has an estimation of 135,547 people. There are pockets of fishing and farming families and some people involved in small businesses. The main vegetation in Dungun is covered by forest and agriculture activities. The main plantations are oil palm and rubber plantation. It also has a beautiful stretch of beaches, and islands that popular with foreigners and West Coast tourists. The attraction places in Dungun include Rantau Abang, Chemerong Waterfall, Bukit Besi, Bukit Bauk, Citrus Valley, Pasir Raja Homestay and so on.

2.2.1 RESOURCES IN DUNGUN

Generally, there are three main resources that have been identified in Dungun district which:

i. Natural Resources

Natural resources are naturally occurring substances that are considered valuable in their relatively unmodified (natural) form. A natural resource's value rests in the amount of the material available and the demand for it. The potential areas in Dungun are a mainland coastal area, waterfall, wetland and agriculture. It also tends to have public environmental education or environmental research generally park-like in nature. For examples; Chemerong Waterfall, Bukit Bauk Reserve Forest, Bumbung Raja Reserve Forest and coastal area.

ii. Culture and Heritage Resources

This includes archaeological or geological sites, landscapes, groups of buildings, as well as scientific collections of art objects, manuscripts, books, published material, archives, audio-visual material and reproductions of any of the preceding. Historical value, as well as intangible cultural assets comprising arts, traditions, customs and skills employed in the performing arts, in applied arts and in crafts and other intangible assets, which have a historical, artistic or ethnographic value. It is also valuable for ecological habitat and heritage conservation. For examples; Ex-mining of Bukit Besi, Pasir Raja Homestay, Bandar Lama Dungun and Tarian Sabah at Kuala Jengai.

iii. Man – Made Resources

Man-made resources defined as those characteristics and services, facilities and activities for which man is directly responsible. It includes wastewater system, transportation, circulation, energy, and telecommunications. It also includes the committed area development. For examples; area of Sura gate, Bandar Al-Mukhtafi Billah Shah, and Paka.

2.2.2 ZONING OF RESOURCES

Below is a zoning of the main resources with potential spot area that found in Dungun.

![Figure 2.2: The three main resources with potential spot area.](image-url)
2.2.3 POSITIONING OF DUNGUN

There are several regional structures highlights the position of Dungun in terms of development. This positioning actually helps the Dungun district in planning the get a sustainable development. The table below showed the positioning of Dungun district according to the sources of regional structure.

Table 2.2: The positioning of Dungun district according to the related regional structure.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>POSITIONING OF DUNGUN DISTRICT</th>
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</thead>
</table>
| Rancangan Fizikal Negara (RFN)/ National Physical Plan (NPP). | - NPP 8 The different tourism development zones shall concentrate on different packages of tourist products to maximize their resources and location advantages.  
- NPP 15 The development of Rural Growth Center (RGCs) shall be reinforced to rationalize the servicing of the rural population. |
- Establish ‘Taman Negeri’ at Chemerong Reserved Forest for preservation, education and ecotourism purposes.  
- Industrial Heritage Theme Park development at Bukit Besi  
Tourism development using forestry resources.  
Encourage agro forestry activities, adventure-trail, jungle-stay in Reserved Forest.  
Tourism development that highlighted East Coast Malay lifestyle as main product of cultural heritage.  
Promoted IKS and Cottage industry development (ODOI programmed). |
| East Coast Economic | Coastal hotels & resorts developing  
Along the Coastal of Dungun. |
| Region (ECER) | Marine turtle observatory protection  
Rantau Abang.  
Develop entry gate of tourist spot  
Dungun town as gateway to Pulau Tenggol  
Initiative Program Inap Desa  
Kg. Pasir Raja  
Highlight natural resources  
Chemerong Waterfall  
Encourage program KETENGAH  
Develop Citrus Valley in Durian Mentangau, Dungun  
Developing Taman Herba (Serai wangi & halia)  
Dungun as nucleus & research center  
- Recreational Coastal and Tourism Beach area.  
- Bukit Bauk Reserved Forest.  
- Paka River Estuary tourism zone  
- West Industry Zone and IKS  
- Buffer zone that separate both industry and residential area  
- Recreational Zone/ Tourism Beach area (Pantai Tg. Jaru to Teluk Bidara)  
- Resort for Orchard Tourism  
- Mangrove Forest along Paka River and Pimpin River  
- Pulau Serai and Kuala Abang as Neighbourhood Center  
- ‘Industrial Heritage Theme Park at Bukit Besi  
- ‘Taman Negeri’ at Chemerong Reserved Forest  
- Pulau Tenggol |
2.2.4 ANALYSIS OF GUIDELINE APPLICATION IN DUNGUN DISTRICT

According to the current policies of regional structure, there are some guidelines that should followed by Dungun. Somehow, not all the guidelines had been applied in Dungun and the condition of application also different within different places. From the analysis, condition of guideline application had divided into three categories including strongly apply, moderate apply and lack of application. (Table 2.3) Only the guideline that related to Dungun and the context will be analyst.

The following are summaries of policy applications in Dungun:

i. Teluk Gadong, Rantau Abang, Tanjung Jara, Teluk Bidara, Pantai Batu Pelanduk

From the inventory, these areas are coastal, mangrove and swamp areas. Part of these areas had indicated as Environment Sensitive Area (ESAs) but the guideline application to preserve this area still not strong enough. Rantau Abang strongly applied with the tourism promotion but land use planning and tourism management should be improved. While the others coastal areas should give more attention on preservation guideline because they have extremely erosion problems.

ii. Chemerong Waterfall, Pasir Raja Reserved Forest, Bukit Bauk Reserved Forest

These areas had strongly applied the National Forestry Policy. All the recreational activities are under control and in good condition. A good example is the forestry authority had divided the forest into different planning block for effective management where logging and recreational activity will be done according to suitable period.

iii. Herbs Plantation, Dungun Citrus Valley

Both of these areas are based on agriculture activity and under control by KETENGAH. Unfortunately, mostly of the areas are lacks of guideline application such as lack of facilities and environment control. Most of the citrus planting attack by disease and the stakeholder broke down the rule where they replant it with oil palm.

iv. Dungun Old Town, Bukit Besi, Homestay Kg. Pasir Raja

Actually Dungun Old Town and Bukit Besi have high heritage and cultural value however the stakeholders did not obey the guideline. The condition of these areas is not in control and needs to have strategies to maintain these valuable products such as register under Akta Benda Purba 1976.

<table>
<thead>
<tr>
<th>Current Relevant Regional Structure</th>
<th>Teluk Gadong</th>
<th>Rantau Abang</th>
<th>Tanjung Jara</th>
<th>Teluk Bidara</th>
<th>Pantai Batu Pelanduk</th>
<th>Chemerong Waterfall</th>
<th>Pasir Raja Reserved Forest</th>
<th>Dungun Citrus Valley</th>
<th>Dungun Old Town</th>
<th>Bukit Besi</th>
<th>Homestay Kg. Pasir Raja</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMK9 To improve the standard and sustainability of quality life</td>
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<tr>
<td>NPP 1 The NPP shall serve as the framework to achieve integrated and sustainable land use planning in the country</td>
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<tr>
<td>NPP 4 Land and natural resources of the less developed regions shall be used in a sustainable manner to increase the productivity in these regions and reduce regional imbalances</td>
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<tr>
<td>NPP 8 The different tourism development zones shall concentrate on different packages of tourist products to maximize their resource and local advantages</td>
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<td></td>
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<td>NPP 13 Towns with special features shall be identified and the development of</td>
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</table>
projects exploiting their special features shall be supported with the appropriate infrastructure

NPP 18 Environmentally Sensitive Areas (ESA) shall be integrated in the planning and management of land use and natural resources to ensure sustainable development

NPP 20 Sensitive coastal ecosystems shall be protected & used in a sustainable manner

NPP 21 Land development in the highlands shall be strictly controlled to safeguard human safety and environmental quality

NPP 22 All surface and ground water resources are strategic assets to be safeguarded and used optimally

NPP 31 Ground water resources and recharge areas shall be identified and protected from activities that

<table>
<thead>
<tr>
<th>Spot Areas in Dungun District</th>
<th>Current Relevant Regional Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teluk Gadong</td>
<td>D1 RS Terengganu shall serve as the framework to achieve integrated and sustainable physical development in state</td>
</tr>
<tr>
<td>Rantau Abang</td>
<td>D5 Environment Sensitive Areas (ESAs) will be preserved and beneficial for research, educational, tourism and conservation purposes</td>
</tr>
<tr>
<td>Tanjung Jara</td>
<td>D9 To provide facilities including education, medical, religious, recreational and so on to support future needs and development</td>
</tr>
<tr>
<td>Teluk Ruhun</td>
<td></td>
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<tr>
<td>Pantai Hani Pelanduk</td>
<td></td>
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<tr>
<td>Chemerong Waterfall</td>
<td></td>
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<tr>
<td>Pasir Raja Reserved Forest</td>
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<tr>
<td>Herbs Plantation</td>
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<tr>
<td>Dungun Citrus Valley</td>
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<td>Dungun Old Town</td>
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<td>Dungun Besi</td>
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<tr>
<td>Homestay Kg. Pasir Raja</td>
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<tr>
<td>Bukit Bauk Reserved</td>
<td></td>
</tr>
</tbody>
</table>

RANCANGAN STRUKTUR NEGERI (RSN)

MANAGEMENT OF HOMESTAY

- Manage HSK to get the maximum benefits of social, economic and environment
- Encourage, expand the forestry education, and organize the services of publicity to increase the community knowledge towards the forest’s benefits
- Preserve the forest diversity and maintained the area that have many unique species of flora and fauna
- Provide the specific area for forestry education and other scientific research

Spot Areas in Dungun District

- Teluk Gadong
- Rantau Abang
- Tanjung Jara
- Teluk Ruhun
- Pantai Hani Pelanduk
- Chemerong Waterfall
- Pasir Raja Reserved Forest
- Herbs Plantation
- Dungun Citrus Valley
- Dungun Old Town
- Dungun Besi
- Homestay Kg. Pasir Raja
- Bukit Bauk Reserved

Current Relevant Regional Structure

- D1 RS Terengganu shall serve as the framework to achieve integrated and sustainable physical development in state
- D5 Environment Sensitive Areas (ESAs) will be preserved and beneficial for research, educational, tourism and conservation purposes
- D9 To provide facilities including education, medical, religious, recreational and so on to support future needs and development
- Manage HSK to get the maximum benefits of social, economic and environment
- Encourage, expand the forestry education, and organize the services of publicity to increase the community knowledge towards the forest’s benefits
- Preserve the forest diversity and maintained the area that have many unique species of flora and fauna
- Provide the specific area for forestry education and other scientific research

Bukit Besi
- Homestay Kg. Pasir Raja

Bukit Bauk Reserved

Pasir Raja Reserved Forest

Dungun Citrus Valley

Dungun Old Town

Dungun Besi

Herbs Plantation

Chemorong Waterfall

Teluk Ruhun

Pantai Hani Pelanduk

Tanjug Jara

Rantau Abang

Teluk Gadong

D1 RS Terengganu shall serve as the framework to achieve integrated and sustainable physical development in state
2.2.5 THE SYNTHESIS

Most of the areas in Dungun obey the guideline but need to be improved. Critical areas like coastal area need to strengthen the environment preservation guidelines while Homestay Kg. Pasir Raja and Citrus Valley should strengthen the tourism development guidelines. More attention should be given in order to control the natural resources such as erosion and flooding. The example is created planting zone and strictly limited the development along the coastal areas. Beside that, new policies should be created to preserve the heritage elements in Bukit Besi and Dungun Old Town. Since some areas like Citrus Valley and Herbs Plantation are under KETENGAH authority, the development plans of these areas are not well record in other regional structure. In conclusion, all the stakeholders in Dungun District are recommended to have cooperation and same aim in apply and progress the policies for resources development.

2.3 REFERENCE STUDY

A reference study had been chosen according to the background and purpose of plan. The Brookhaven National Laboratory (BNL) has establishes the management goals and actions necessary for managing the natural resources. Some of the strategies can be applied in Dungun District to establish a sustainable natural resources management plan. The table below shows selected actions taken by BNL which can be a reference to local authority in Dungun.

<table>
<thead>
<tr>
<th>ASPECT</th>
<th>ACTION</th>
</tr>
</thead>
</table>
| Resource Identification | • Adapt natural resource management decisions based on up-to-date information gained collectively through cooperation with outside agencies and organizations.  
• Improve management decisions through the use of innovative tools.  
• Maintain and improve relationships between neighboring landowners, support agencies, and private environmental groups. |
| Habitat Identification, Protection, or Enhancement | • Ensure adequate habitat for protected species and species of special concern.  
• Maintain a healthy ecosystem that contains the proper environment for protected plants and supports habitat for protected species and species of special concern. |
| Law Enforcement | • The Natural Resource Manager will continue to work with BNL Safeguards |

Table 2.4 Aspect and actions of the Brookhaven National Laboratory (BNL) natural resource management plan.
and Security and the Pine Barrens Law Enforcement Task Force to reduce illegal motorized vehicles.

**Wetland and River Management**
- A monthly State Pollution Discharge and Elimination System (SPDES) sampling program is used to monitor the water quality and flow.
- Fish Sampling was performed with NYSDEC beginning in 1999 to assess the banded sunfish habitat and populations, and reassess management strategy as needed.

**Vegetation Management**
- Include native grass seed mixture into applicable revegetation plans for disturbed areas. Utilize native tree and shrub species around structures.

**Integration of Cultural Resource Protection and Management**
- Include native grass seed mixture into applicable revegetation plans for disturbed areas. Utilize native tree and shrub species around structures.

**Education and Public Outreach**
- Continue to provide educational materials to staff and the public on environmental issues. Material should be updated and redistributed as necessary. Nature walks and bird watching field trips should be conducted routinely.

**Wildlife Oriented Recreational Access**
- Planned trails or paths should be clearly marked and maps made available to employees, to limit impact on sensitive areas, while increasing awareness of the different vegetation areas on the BNL site.

### 2.4 SWOT ANALYSIS OF REGIONAL STRUCTURE

<table>
<thead>
<tr>
<th>STRENGTH</th>
<th>WEAKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most of the agencies which responsible to implement the policies are located in Dungun from Majlis Daerah Dungun to JKKK and even branch department of ministry.</td>
<td>There is lack of cooperation between the agencies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITY</th>
<th>THREAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>New guideline or policies that preserve and conserve the resources which neglected by people can be created under cooperation between local authorities.</td>
<td>The source of funding for each agency is different and the complex procedures to undergo cooperation will obstruct the progression.</td>
</tr>
</tbody>
</table>

### 2.5 SUMMARY

Dungun is a district that are rich with various resources including natural, man-made, cultural and heritage resources. It is important for us to identify both potentials and constraints in Dungun thus to have sustainable development. The current policies and guidelines need to be strengthening so that the land use and tourism planning will be more efficient. Besides that, new policies and strategies should be creates to preserve resources that had been ignore. All the development should be parallel with related regional structure to achieve optimum development. Lastly, all related authorities must give cooperation in implementation of policies.