**Figure 4.1: Current Land Use of Kuala Nerus District (2018)**
*Source: IPlan, PLANMalaysia*

**Figure 4.1** above shows that Kuala Nerus been most developed at the east of the district compared to the west which still undeveloped and dominated by agricultural and forest land use. Coastal area along Kuala Nerus is mostly residential area, dominated by traditional housing occupied by the fisherman and others. Lapangan Terbang Sultan Mahmud is also located at the coastal area which provide air transportation for all people in Terengganu. Next to the Terengganu's airport, there is an army facilities with *Angkatan Pertahanan Awam Malaysia Negeri Terengganu* included inside it.

### 4.1.2   Land Use Zoning

By referring to the Kuala Terengganu Local Plan 2020, four type of land uses will be focused in Blok Perancangan Kecil 7.2: Seberang Takir as can be seen in **Figure 4.2** and **Table 4.1**. Along the coastline next to the Project site is a potential areas for chalet and boarding houses development and businesses.

Moreover, another proposal near the project site is the preservation of river reserve area. It is potential to develop as a recreational area and use as flood mitigation reservoir.

However, there is no reclamation and new township proposal in the future for Blok Perancangan Kecil Seberang Takir. Therefore, the proposed project is not in line with the local plan.

**CADANGAN KELAS KEGUNAAN TANAH, 2020**
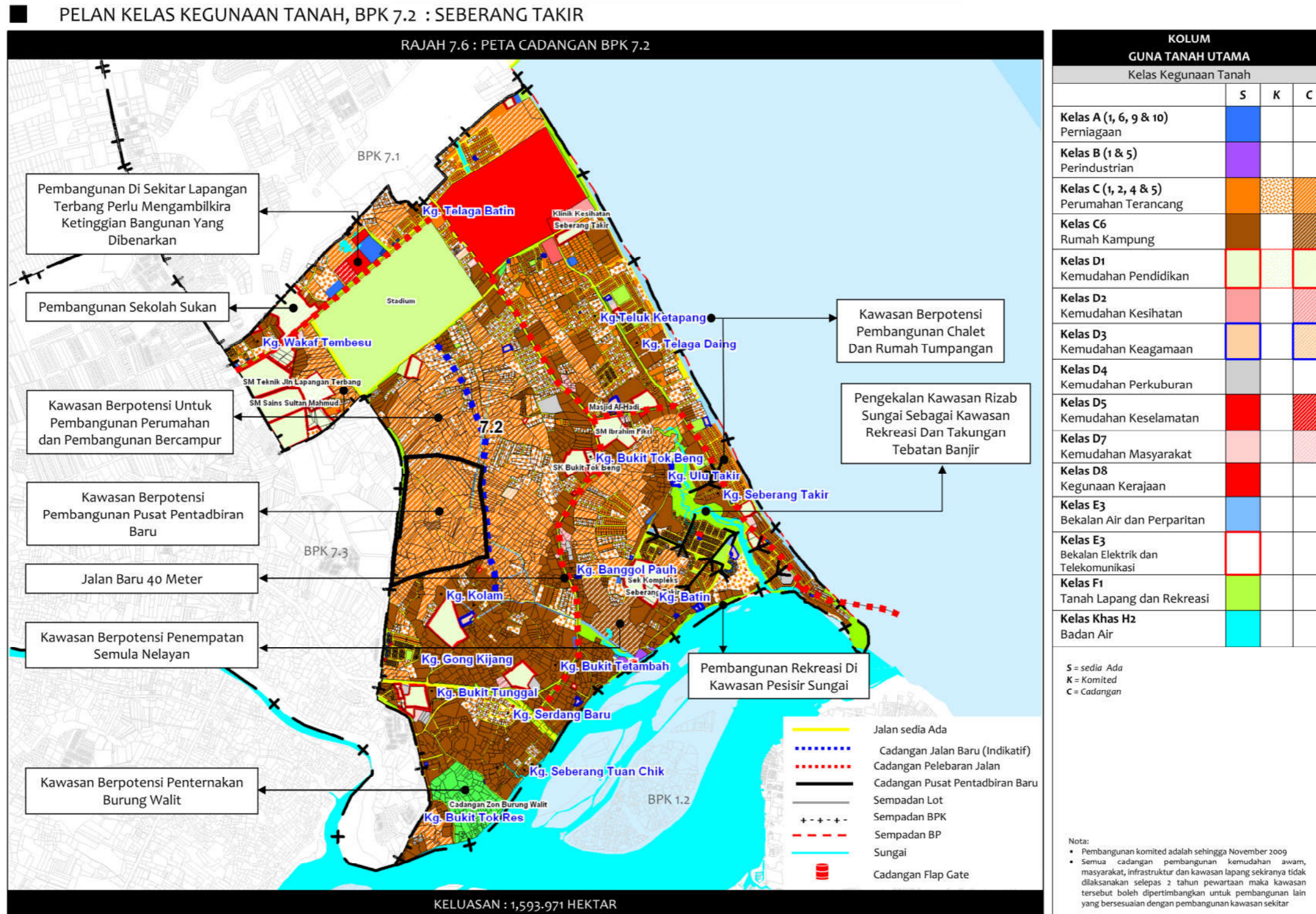**BLOK PERANCANGAN 7 : KUALA NERUS**

rancangan tempatan
*kuala terengganu*

■ PELAN KELAS KEGUNAAN TANAH, BPK 7.2 : SEBERANG TAKIR

RAJAH 7.6 : PETA CADANGAN BPK 7.2

BPK 7.1

Pembangunan Di Sekitar Lapangan Terbang Perlu Mengambilkira Ketinggian Bangunan Yang Dibenarkan

Kg. Telaga Batin

Klinik Kesihatan Seberang Takir

Pembangunan Sekolah Sukan

Stadium

Kg. Teluk Ketapang

Kawasan Berpotensi Pembangunan Chalet Dan Rumah Tumpangan

Kg. Wakaf Tembesu

Kg. Telaga Daing

SM Teknik Jln Lapangan Terbang

Kawasan Berpotensi Untuk Pembangunan Perumahan dan Pembangunan Bercampur

SM Sains Sultan Mahmud

SM Ibrahim Fikri

7.2

Masjid Al-Hadi

Pengekalan Kawasan Rizab Sungai Sebagai Kawasan Rekreasi Dan Takungan Tebatan Banjir

Kg. Bukit Tok Beng

SK Bukit Tok beng

Kg. Ulu Takir

Kawasan Berpotensi Pembangunan Pusat Pentadbiran Baru

Kg. Seberang Takir

BPK 7.3

Jalan Baru 40 Meter

Kg. Banggol Pauh

Sek Komplek Seberang

Kawasan Berpotensi Penempatan Semula Nelayan

Kg. Kolam

Kg. Batin

Kg. Gong Kijang

Kg. Bukit Tetambah

Pembangunan Rekreasi Di Kawasan Pesisir Sungai

Kg. Bukit Tunggal

Kg. Serdang Baru

Kawasan Berpotensi Penternakan Burung Walit

Kg. Seberang Tuan Chik

Cadangan Zon Burung Walit

BPK 1.2

Kg. Bukit Toki Res

| Jalan sedia Ada |
| Cadangan Jalan Baru (Indikatif) |
| Cadangan Pelebaran Jalan |
| Cadangan Pusat Pentadbiran Baru |
| Sempadan Lot |
| Sempadan BPK |
| Sempadan BP |
| Sungai |
| Cadangan Flap Gate |

KELUASAN : 1,593.971 HEKTAR

**KOLUM GUNA TANAH UTAMA**

Kelas Kegunaan Tanah

| | S | K | C |
|---|---|---|---|
| Kelas A (1, 6, 9 & 10) Perniagaan | | | |
| Kelas B (1 & 5) Perindustrian | | | |
| Kelas C (1, 2, 4 & 5) Perumahan Terancang | | | |
| Kelas C6 Rumah Kampung | | | |
| Kelas D1 Kemudahan Pendidikan | | | |
| Kelas D2 Kemudahan Kesihatan | | | |
| Kelas D3 Kemudahan Keagamaan | | | |
| Kelas D4 Kemudahan Perkuburan | | | |
| Kelas D5 Kemudahan Keselamatan | | | |
| Kelas D7 Kemudahan Masyarakat | | | |
| Kelas D8 Kegunaan Kerajaan | | | |
| Kelas E3 Bekalan Air dan Perparitan | | | |
| Kelas E3 Bekalan Elektrik dan Telekomunikasi | | | |
| Kelas F1 Tanah Lapang dan Rekreasi | | | |
| Kelas Khas H2 Badan Air | | | |

S = sedia Ada
K = Komited
C = Cadangan

Nota:
• Pembangunan komited adalah sehingga November 2009
• Semua cadangan pembangunan kemudahan awam, masyarakat, infrastruktur dan kawasan lapang sekiranya tidak dilaksanakan selepas 2 tahun pewartaan maka kawasan tersebut boleh dipertimbangkan untuk pembangunan lain yang bersesuaian dengan pembangunan kawasan sekitar

Bahagian B : Pelan Cadangan Terperinci Blok Perancangan 7
Peta Cadangan, 2020

7-8

**Figure 4.2: Proposed Land Use Zoning, 2020 for Blok Perancangan Kecil 7.2 Seberang Takir**
*Source: Kuala Terengganu Local Plan 2020*

**Table 4.1: Land Use Classification, BPK 7.2 (Seberang Takir)**

## CADANGAN KELAS KEGUNAAN TANAH, 2020
### BLOK PERANCANGAN 7 : KUALA NERUS

*rancangan tempatan*
*kuala terengganu*

■ JADUAL 7.4 : KELAS KEGUNAAN TANAH, BPK 7.2 (SEBERANG TAKIR)

| KOLUM I | KOLUM II | KOLUM III | KOLUM IV | | KOLUM V | |
|---|---|---|---|---|---|---|
| | | | Aktiviti Yang Dibenarkan Dengan Syarat | | Aktiviti Yang Tidak Dibenarkan | Catatan |
| Jenis Guna Tanah Utama | Guna Tanah Sokongan | Aktiviti Yang Dibenarkan | Aktiviti | Syarat | | |
| PERUMAHAN | | C1 – Rumah Sesebuah / C2 – Rumah Berkembar / C4 – Rumah Teres — • Rumah Setingkat • Rumah Bertingkat<br>C5 – Rumah Bertingkat — • Rumah Pangsa • Pangsapuri • Kondominium<br>C6 – Rumah Kampung — • Rumah Kampung Terancang • Rumah Kampung Tidak Terancang | • Perniagaan Runcit<br>• Menjual dan Membaiki<br>• Sewaan<br>• Kedai Pejabat<br>• Perniagaan Perkhidmatan Khusus<br>• Restoran<br>• Kedai Kek dan Roti<br>• Lot Permainan<br>• Padang Kejiranan<br>• Kemudahan Masyarakat<br>• Bengkel membaiki bot dan jentera perikanan<br>• Chalet dan Rumah Tumpangan<br>• Industri Kotej<br>• Lain-lain aktiviti yang seragam dengan guna tanah perumahan | • Mengikut keperluan setempat dan perlu mengikut garis panduan/piawaian perancangan<br>• Aktiviti perniagaan dibenarkan di jalan-jalan utama di kawasan kediaman bagi lot-lot pertama yang dapat memenuhi syarat-syarat pembangunan perniagaan<br>• Aktiviti bengkel membaiki bot dan jentera perikanan hendaklah tidak mencemarkan alam sekitar<br>• Industri kotej dibenarkan di kawasan kampung | • Semua aktiviti yang tidak tersenarai dalam Kolum III dan IV | • Pembangunan premis perniagaan sementara di lot-lot yang dapat memenuhi syarat-syarat pembangunan perniagaan<br>• Aktiviti chalet dan rumah tumpangan dibenarkan di kawasan kediaman pesisir laut dan sungai |
| | PERNIAGAAN | A1 – Perkedaian — • Runcit<br>A6 – Pusat Kewangan — • Perbankan<br>A9 – Pusat Makanan — • Restoran • Medan Selera • Kedai Kopi • Kafeteria • Kafe Terbuka • Lain-lain pusat makanan<br>A10 – Stesen Minyak — • Stesen | • Perniagaan Perkhidmatan Khusus<br>• Perniagaan Kegunaan Bercampur<br>• Gerai<br>• Kedai/Hotel<br>• Perindustrian<br>• Lain-lain aktiviti yang seragam dengan guna tanah Perniagaan<br>• Pembangunan perniagaan sementara dibenarkan | • Mengikut keperluan setempat dan perlu mengikut garis panduan/piawaian perancangan<br>• Memenuhi syarat-syarat pembangunan perniagaan | • Semua aktiviti yang tidak tersenarai dalam Kolum III dan IV<br>• Aktiviti membaiki dan servis kenderaan di stesen minyak | • Pembangunan premis perniagaan sementara di lot-lot yang dapat memenuhi syarat-syarat pembangunan perniagaan<br>• Aktiviti chalet dan rumah tumpangan dibenarkan di kawasan kediaman pesisir laut dan sungai |
| | INSTITUSI AWAM | D1 – Pendidikan — • Sekolah Rendah<br>D2 – Kesihatan — • Klinik Desa<br>D3 – Keagamaan — • Masjid<br>D5 – Keselamatan — • Balai Polis • Lain-lain kemudahan<br>D7 – Kemudahan Masyarakat — • Dewan Serbaguna • Balai raya • Perpustakaan Desa • Lain-lain kemudahan | • Lain-lain aktiviti yang berkaitan/seragam dengan institusi awam | • Mengikut keperluan setempat dan perlu mengikut garis panduan/piawaian perancangan | • Semua aktiviti yang tidak tersenarai dalam Kolum III dan IV | |
| | PENTERNAKAN | G2 – Pertanian Komersil — • Pertanian dan Penternakan | • Penternakan burung walit<br>• Lain-lain aktiviti yang seragam dengan guna tanah pertanian | • Mengikut keperluan setempat dan perlu mengikut garis panduan/piawaian perancangan<br>• Aktiviti penternakan burung walit di benarkan di kawasan pertanian sekiranya dapat memenuhi syarat dan garis panduan/piawaian yang telah ditetapkan | • Semua aktiviti yang tidak tersenarai dalam Kolum III dan IV | • Aktiviti penternakan burung walit, ayam, kambing dan lembu di benarkan di kawasan pertanian sekiranya dapat memenuhi garis panduan / piawaian yang ditetapkan |

Bahagian B : Pelan Cadangan Terperinci Blok Perancangan 7
Peta Cadangan, 2020
**7-9**

### 4.1.3   Public and Essential Facilities and Zoning

A good amenities and community facilities are the factors that encourage people to live in a certain area. Amenities that need to provided such as electric and water supply, telephone cable, road, sanitary and drainage system. Based on the field study that have been done, people who live in the villages around the project area are receiving adequate amenities and living in comfort. All the houses received electrical supply from Tenaga Nasional Berhad (TNB) and water supply provided by Syarikat Air Terengganu (SATU). The other amenities such as drainage and road maintenance are take care by the authority.

**Table 4.2** shows the availability of public amenities in the study area while **Table 4.3** shows some of the facilities available exactly within the study area.

**Table 4.2: Public Amenities at the Study Area**

| Infrastructures | Availability |
|---|---|
| Electric Supply (TNB) | Yes |
| Water Supply | Yes |
| Garbage Transportation Services | Yes |
| Telephone | Yes |
| Road system | Yes |
| Drainage system | Yes |

*Source: Field data March 2018.*

**Table 4.3: The Community Facilities Available surrounding the Proposed Project Site**

| Community Facilities Available at the Surrounding Seberang Takir | |
|---|---|
| • Hospital Sultanah Nur Zahirah | • Masjid Kristal |
| • Kuala Terengganu Specialist Hospital | • Sekolah Kebangsaan Ladang |
| • Sekolah Kebangsaan Gong Kapas | • Wisma Darul Iman |
| • Hospital Pakar Kuala Terengganu | • Pejabat RISDA Kuala Terengganu |
| • SMK Agama Sheikh Abdul Malik | • Lembaga Tabung Haji |
| • Kelab Golf Diraja Terengganu | • Balai Bomba dan Penyelamat Kuala Terengganu |
| • Muzium Negeri Terengganu | • Sekolah Kebangsaan Paya Bunga |

*Source: Field data March 2018.*

**Table 4.4** shows the community facilities available surrounding the study area. Being located at the outskirts of the main city centre, the study area is quite convenient and equipped with essential amenities.

The public facilities within 5km from the Project site can be referred in **Figure 4.3 and Figure 4.4**. The nearest school from the Project site is SK Teluk Ketapang. Two universities are located in Kuala Nerus district, which are *Universiti Sultan Zainal Abidin (UniSZA)* and *Universiti Malaysia Terengganu (UMT).* Kuala Terengganu Public Library is the only public library that can be identified in the study area.

Only three fire and rescue station located within 5km radius from the Project site, which are Jalan Kota Fire and Rescue Station, Kuala Nerus Fire and Rescue Station and Kuala Terengganu Fire and Rescue Station. According to the Planning Guidelines from PLANMalaysia, those fire and rescue station can be classified as Fire Station Category A, as they are provided at the main town and state capital.

**Table 4.4 Social Facilities within 5 Kilometer Radius**

| Social Facilities | Availability |
|---|---|
| Schools | Yes |
| Mosque/Surau | Yes |
| Religious Centers | Yes |
| Sports & Recreational Facilities | Yes |
| Public Hall | Yes |
| Clinic/ Hospital | Yes |
| Public Library | Yes |

*Source: Field data March 2018.*

SK Seberang Takir

Universiti Malaysia Terengganu

Universiti Sultan Zainal Abidin

SK Teluk Ketapang

SK Tok Jembal

SMK Kompleks Seberang Takir

SJK (C) Chung Hwa Wei Sin

Sri Utama Schools

SM Sains Sultan Mahmud

| PUBLIC FACILITIES (EDUCATION) | | | |
|---|---|---|---|
| 1 | SK Seberang Takir | 15 | SK Sultan Sulaiman I |
| 2 | SMK Kompleks Seberang Takir | 16 | SK Sultan Sulaiman II |
| 3 | SK Bukit Tok Beng | 17 | SMK Chung Hwa Wei Sin |
| 4 | SMK Ibrahim Fikri | 18 | SJK (C) Chung Hwa Wei Sin |
| 5 | SK Teluk Ketapang | 19 | SK Gong Kapas |
| 6 | SK Bukit Tumbuh | 20 | SK Seri Budiman |
| 7 | SMK Bukit Tunggal | 21 | SMK Panji Alam |
| 8 | SK Bukit Tunggal | 22 | SK Tengku Bariah |
| 9 | SK Duyong | 23 | SM Sains Kuala Terengganu |
| 10 | SMA Sultan Zainal Abidin Ladang | 24 | SMK Tengku Bariah |
| 11 | SK Ladang | 25 | SK Pasir Panjang |
| 12 | SK Tengku Ampuan Mariam | 26 | SMK Padang Negara |
| 13 | SK Paya Bunga | 27 | SMK Seri Budiman |
| 14 | Grammar School of Professional Studies | 28 | SMK Sultan Sulaiman |
| | | 29 | SMA (ATAS) Sultan Zainal Abidin |
| | | 30 | Sri Utama Schools |
| | | 31 | SMK Bukit Besar |
| | | 32 | SK Losong |
| | | 33 | SK Cabang Tiga |
| | | 34 | SK Seri Nilam |
| | | 35 | SK Bukit Losong |
| | | 36 | SM Teknik Terengganu |
| | | 37 | Sekolah Sukan Malaysia |
| | | 38 | SM Sains Sultan Mahmud |
| | | 39 | SMK Kompleks Gong Badak |
| | | 40 | SK Tok Jembal |
| | | 41 | SK Gong Badak |
| | | 42 | Universiti Malaysia Terengganu |
| | | 43 | Universiti Sultan Zainal Abidin (UniSZA) |

**Figure 4.3: Education Facilities within 5km Radius from Project Site**

| PUBLIC FACILITIES (HEALTH) | |
| --- | --- |
| 1 | Sultanah Nur Zahirah Hospital |
| 2 | Kuala Terengganu Specialist Hospital |
| 3 | Seberang Takir Health Clinic |
| 4 | Pusat Rawatan Ibu dan Bayi (PRIBA) |
| 5 | UMT Health Centre |
| 6 | Bukit Tunggal Health Clinic |
| 7 | Bukit Tunggal Dental Clinic |
| 8 | Hiliran Health Clinic |
| 9 | Losong Rural Clinic |
| 10 | UTC 1Malaysia Health Clinic |
| 11 | Air Jernih Maternal and Child Health Clinic |
| 12 | Pulau Duyong Rural Clinic |
| 13 | Seberang Takir Rural Clinic |

| PUBLIC FACILITIES (SAFETY) | |
| --- | --- |
| 1 | Gong Badak Police Station |
| 2 | Kuala Terengganu Police Station |
| 3 | Jalan Kota Fire and Rescue Station |
| 4 | Fire and Rescue Station Terengganu Headquarters |
| 5 | Cabang Tiga Police Station |
| 6 | Kuala Nerus Fire and Rescue Station |

**Figure 4.4: Health and Safety Facilities within 5km Radius from Project Site**

## 4.2   POPULATION

### 4.2.1   General Population Growth and Distribution in Terengganu

Malaysia has a total population of 28.33 million in 2010 Census, with an average growth rate of 2% per annum. Terengganu has 1.035 million people by the year 2010. The ethnic composition of Terengganu consists of Malay, Chinese, Indian and others. **Table 4.5** shows the total population by ethnic group in Terengganu.

**Table 4.5: Total Population according to Ethnic Group and Citizenship in Terengganu, 2010**

| Total Population by Ethnic Group in Terengganu | | | |
|---|---|---|---|
| **Malaysian Citizens** | Bumiputera | Malay | 985,011 |
| | | Other Bumiputera | 1,991 |
| | Chinese | | 26,429 |
| | Indian | | 2,397 |
| | Others | | 1,382 |
| **Non-Malaysian Citizens** | | | 18,767 |
| **Total** | | | **1,035,977** |

*Source: Department of Statistic Malaysia, 2010*

### 4.2.2   Population Distribution by District in Terengganu

**Table 4.6** provides the population for every districts in Terengganu. Population for Kuala Nerus District, where the Project is located is included in Kuala Terengganu District has a total population of 343,284 people according to 2010 Census. Kuala Terengganu is the largest populated district in Terengganu.

**Table 4.6: Total Population Distribution by Districts in Terengganu (2010)**

| District | Population | Percentage (%) |
|---|---|---|
| Besut | 140,952 | 13.6 |
| Dungun | 154,932 | 15.0 |
| Hulu Terengganu | 72,052 | 7.0 |
| Kemaman | 171,383 | 16.5 |
| Kuala Terengganu (including Kuala Nerus) | 343,284 | 33.1 |
| Marang | 97,857 | 9.4 |
| Setiu | 55,517 | 5.4 |
| Terengganu | **1,035,977** | **100.0** |

*Source: Department of Statistic Malaysia, 2010*

**Table 4.7** shows the population of Kuala Terengganu district by ethnic groups. By referring to the table below, the majority ethnic in Terengganu is Malay with 94.7% and followed by Chinese with 3.5%.

**Table 4.7: Total Population Distribution according to Ethnicity by Districts in Terengganu (2010)**

| Citizens | Ethnicity | | Population | Percentage (%) |
|---|---|---|---|---|
| **Malaysian Citizens** | Bumiputera | Malay | 325,145 | 94.7 |
| | | Other Bumiputera | 660 | 0.2 |
| | Chinese | | 11,851 | 3.5 |
| | Indian | | 886 | 0.3 |
| | Others | | 294 | 0.1 |
| **Non-Malaysian Citizens** | | | 4,448 | 1.3 |
| **Kuala Terengganu** | | | **343,284** | **100.0** |

*Source: Department of Statistic Malaysia, 2010*

### 4.2.3 Population Distribution by Mukims in Kuala Terengganu District

The population distribution by mukims of Kuala Terengganu District is shown in **Table 4.8**. Kuala Nerus, which before known as one of Kuala Terengganu's mukim has the highest population among the mukims at 83,793 people in 2010.

The 5-km ZOI of the Project covers Mukim Bandar Kuala Terengganu, Batu Buruk, Batu Rakit, Manir, Bukit Besar, Cabang Tiga, Losong and Kuala Nerus. The total population of these mukims is 222,293 people.

**Table 4.8: Total Population Distribution by Mukims in Kuala Terengganu District (2010)**

| Mukims | Population | Percentage (%) |
|---|---|---|
| Atas Tol | 2,900 | 0.8 |
| **Bandar Kuala Terengganu** | **12,279** | **3.6** |
| **Batu Buruk** | **13,852** | **4.0** |
| **Batu Rakit** | **37,163** | **10.8** |
| Belara | 17,648 | 5.1 |
| **Bukit Besar** | **22,929** | **6.7** |
| **Cabang Tiga** | **14,448** | **4.2** |
| Cenering | 13,811 | 4.0 |
| Gelugur Kedai | 6,605 | 1.9 |
| Gelugur Raja | 2,083 | 0.6 |
| Kepung | 7,131 | 2.1 |
| Kuala Ibai | 13,316 | 3.9 |

| Mukims | Population | Percentage (%) |
|---|---|---|
| **Kuala Nerus** | **83,793** | **24.4** |
| Kubang Parit | 7,379 | 2.1 |
| **Losong** | **9,401** | **2.7** |
| **Manir** | **28,428** | **8.3** |
| Paluh | 8,787 | 2.6 |
| Pengadang Buluh | 14,263 | 4.2 |
| Pulau-Pulau | 3,945 | 1.1 |
| Pulau Redang | 2,013 | 0.6 |
| Rengas | 3,009 | 0.9 |
| Serada | 7,177 | 2.1 |
| Tok Jamal | 5,193 | 1.5 |
| **Kuala Terengganu** | **343,284** | **100.0** |

*Source: Department of Statistic Malaysia, 2010*

### 4.2.4    General Population Profiles

### 4.2.4.1 Mukims by Ethnic Group

The ethnicity in related Mukims can be referred in **Table 4.9**. Bumiputera as the highest ethnic group with 94.08%, then followed by Chinese (4.31%) and Non-Citizens (1.18%).

**Table 4.9: Population Distribution by Ethnic Group in related Mukims (2010)**

| Mukim | Citizens | | | | | | | | Non-Citizens | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Bumiputera** | | **Chinese** | | **Indian** | | **Others** | | | |
| | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** | **No.** | **%** |
| Kuala Terengganu | 7,415 | 3.34 | 4,242 | 1.91 | 172 | 0.08 | 41 | 0.02 | 409 | 0.18 |
| Batu Buruk | 13,011 | 5.85 | 361 | 0.16 | 137 | 0.06 | 18 | 0.01 | 325 | 0.15 |
| Batu Rakit | 36,441 | 16.39 | 172 | 0.08 | 131 | 0.06 | 8 | 0.00 | 411 | 0.18 |
| Bukit Besar | 21,924 | 9.86 | 611 | 0.27 | 39 | 0.02 | 19 | 0.01 | 336 | 0.15 |
| Cabang Tiga | 12,862 | 5.79 | 1,337 | 0.60 | 62 | 0.03 | 24 | 0.01 | 163 | 0.07 |
| Kuala Nerus | 80,789 | 36.34 | 1,931 | 0.87 | 208 | 0.09 | 58 | 0.03 | 807 | 0.36 |
| Losong | 9,195 | 4.14 | 109 | 0.05 | 9 | 0.00 | 1 | 0.00 | 87 | 0.04 |
| Manir | 27,491 | 12.37 | 814 | 0.37 | 20 | 0.01 | 7 | 0.00 | 96 | 0.04 |
| **Total** | **209,128** | **94.08** | **9,577** | **4.31** | **778** | **0.35** | **176** | **0.08** | **2,634** | **1.18** |
| **Grand Total** | **222,293 People** | | | | | | | | | |

*Source: Department of Statistic Malaysia, 2010*

### 4.2.4.2 Mukims by Gender, Age Group

According to the **Table 4.10**, female has higher percentage with 50.5% compared to male with 49.5% in the eight mukims. Kuala Nerus has the highest for both gender, which male is 18.1% while female is 19.6%. From **Table 4.11**, Kuala Nerus also has the highest percentage for all three age group, which 0-14 years (11.1%), 15-64 years (25.1%) and higher than 65 years (1.4%).

**Table 4.10: Population Distribution by Gender in related Mukims (2010)**

| Mukim | Number of Household | Gender | | | |
|---|---|---|---|---|---|
| | | Male | | Female | |
| | | No. | % | No. | % |
| Kuala Terengganu | 3,356 | 5,775 | 2.6 | 6,504 | 2.9 |
| Batu Buruk | 3,170 | 6,652 | 3.0 | 7,200 | 3.2 |
| Batu Rakit | 7,565 | 19,248 | 8.7 | 17,915 | 8.1 |
| Bukit Besar | 5,100 | 11,505 | 5.2 | 11,424 | 5.1 |
| Cabang Tiga | 3,308 | 7,313 | 3.3 | 7,135 | 3.2 |
| Kuala Nerus | 15,665 | 40,324 | 18.1 | 43,469 | 19.6 |
| Losong | 1,999 | 4,601 | 2.1 | 4,800 | 2.2 |
| Manir | 5,872 | 14,521 | 6.5 | 13,907 | 6.3 |
| **Total** | **46,035** | **109,939** | **49.5** | **112,354** | **50.5** |
| **GRAND TOTAL** | **222,293 People** | | | | |

*Source: Department of Statistic Malaysia, 2010*

**Table 4.11: Population Distribution by Age Group in related Mukims (2010)**

| Mukim | Total Population | Age Group | | | | | |
|---|---|---|---|---|---|---|---|
| | | 0 – 14 years | | 15 - 64 years | | 65 years > | |
| | | No. | % | No. | % | No. | % |
| Kuala Terengganu | 12,279 | 2,451 | 1.1 | 8,811 | 4.0 | 1,017 | 0.5 |
| Batu Buruk | 13,852 | 3,882 | 1.7 | 9,149 | 4.1 | 821 | 0.4 |
| Batu Rakit | 37,163 | 11,588 | 5.2 | 23,803 | 10.7 | 1,772 | 0.8 |
| Bukit Besar | 22,929 | 6,787 | 3.1 | 14,734 | 6.6 | 1,408 | 0.6 |
| Cabang Tiga | 14,448 | 4,164 | 1.9 | 9,394 | 4.2 | 890 | 0.4 |
| Kuala Nerus | 83,793 | 24,752 | 11.1 | 55,886 | 25.1 | 3,155 | 1.4 |
| Losong | 9,401 | 2,781 | 1.3 | 5,994 | 2.7 | 626 | 0.3 |
| Manir | 28,428 | 8,710 | 3.9 | 17,993 | 8.1 | 1,725 | 0.8 |
| **Total** | **222,293** | **65,115** | **29.3** | **145,764** | **65.6** | **11,414** | **5.1** |
| **GRAND TOTAL** | **222,293 People** | | | | | | |

*Source: Department of Statistic Malaysia, 2010*

## 4.3    SOCIO-ECONOMIC PROFILE

A household survey was done involving a total of 343 respondents from 45 settlements inside the influence area (ZOI). The area were divided into 5 area zones, which were around radius of 1 km apart from each zone starting from the boundary of the proposed site area. The respondent gathered are from the community living inside the ZOI area, including fishermen community.

**Table 4.12** shows the summary of the gathered sample from the settlements according to its ZOI.

**Table 4.12: Summary of Samples Respondent according to ZOI**

| Settlements (including respondent from fishermen community) | | Sample Gathered | Targeted Sample | % from targeted sample |
|---|---|---|---|---|
| **0-1KM** | | | | |
| 1 | Taman Permint Perdana | | | |
| 2 | Kampung Telaga Daing | | | |
| 3 | Kampung Baru Seberang Takir | 109 | 117 | 93% |
| 4 | Kampung Ulu Takir | | | |
| 5 | Kampung Ketapang | | | |
| **1-2KM** | | | | |
| 6 | Kampung Nesan Empat | | | |
| 7 | Kampung Tanjung Paya | | | |
| 8 | Kampung Ladang | | | |
| 9 | Kampung Tiong | | | |
| 10 | Kampung Tok Jembal | 92 | 76 | 121% |
| 11 | Kampung Tanjung Kapur | | | |
| 12 | Kampung Banggul Pauh | | | |
| 13 | Kampung Banggul | | | |
| 14 | Kampung Bukit Tok Beng | | | |
| 15 | Kampung Batin | | | |
| 16 | Kampung Ladang Sekolah | | | |
| 17 | Kampung Telaga Batin | | | |
| 19 | Kampung Batas Baru | | | |
| 20 | Taman Murni Permai | | | |
| **2-3KM** | | | | |
| 18 | Batu Buruk | 17 | 16 | 106% |
| **3-4KM** | | | | |
| 21 | Kampung Mengabang Tengah | | | |
| 22 | Kampung Wakaf Baru | | | |
| 23 | Kampung Kijang | | | |
| 24 | Kampung Losong Haji Long | | | |

| Settlements (including respondent from fishermen community) | | Sample Gathered | Targeted Sample | % from targeted sample |
|---|---|---|---|---|
| 25 | Kampung Losong | 83 | 85 | 98% |
| 26 | Kampung Kubang Badak | | | |
| 27 | Kampung Jati Gong Badak | | | |
| 28 | Kampung Batu Burok | | | |
| 29 | Kampung Pantai Batu Burok | | | |
| 30 | Kampung Pengkalan Batu | | | |
| 31 | Kampung Tanjung Bunut | | | |
| **4-5KM** | | | | |
| 32 | Kampung Bukit Datu | 36 | 92 | 39% |
| 33 | Kg Losong Haji Awang | | | |
| 34 | Kampung Kubur Kecil | | | |
| 35 | Kg Losong Panglima Perang | | | |
| 36 | Kg Losong Hj Mat Shafie | | | |
| 37 | Kampung Gong Gemia | | | |
| 38 | Kg Losong Atap Zin | | | |
| 39 | Kampung Nibung | | | |
| 40 | Kampung Seberang Baruh | | | |
| 41 | Kg Banggol Tok Jiring | | | |
| 42 | Kampung Tok Ku | | | |
| 43 | Kg. Makam Lama | | | |
| 44 | Kg. Tuan Mandan | | | |
| 45 | Kg. Gong Datuk | | | |
| **Total  Sample** | | 343 | | |

*Source: Social Survey, 2019.*
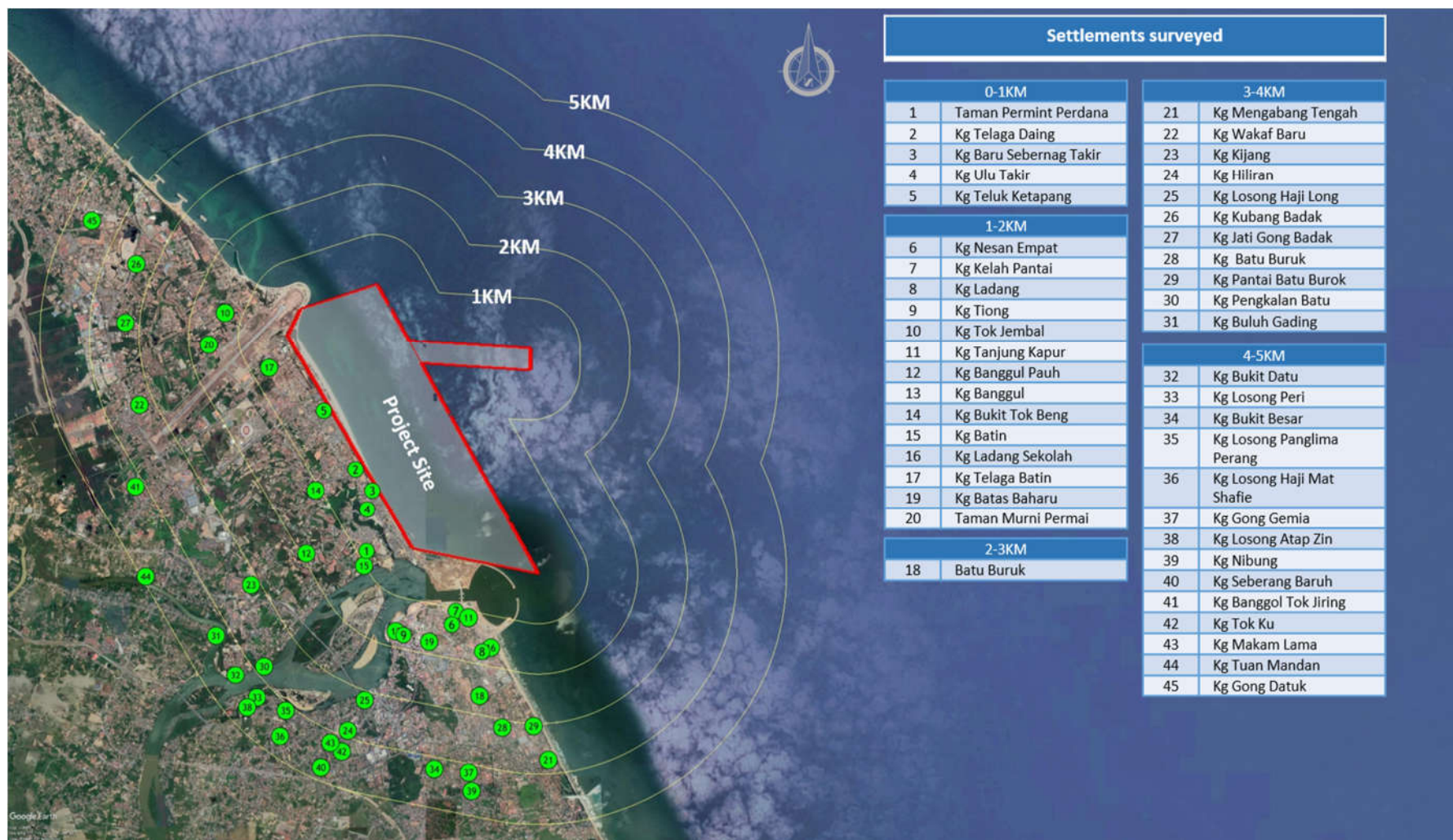
**Figure 4.5: Location of Samples Respondent according to ZOI**

### 4.3.1   PROFILE DEMOGRAPHY

According to the questionnaire, the respondents were mostly Malays, which consisted of 286 (83.4%) respondents, followed by Chinese with 34 (9.9%) respondents. The least respondent recorded from the survey was Indian which 23 (6.7%) respondents is. As shown in **Table 4.13**, the ethnicity composition of respondent reflecting the dominant race population in Terengganu itself.

**Table 4.13: Ethnicity and Gender of Respondents**

| Ethnicity | GENDER | | | |
| --- | --- | --- | --- | --- |
| | **Male** | **Female** | **Total** | |
| | No. Respondent | No. Respondent | No. Respondent | % |
| **Malay** | 197 | 89 | 286 | 83.4 |
| **Chinese** | 28 | 6 | 34 | 9.9 |
| **Indian** | 16 | 7 | 23 | 6.7 |
| **Total** | **241** | **102** | **343** | **100** |

*Source: Social Survey, 2019.*
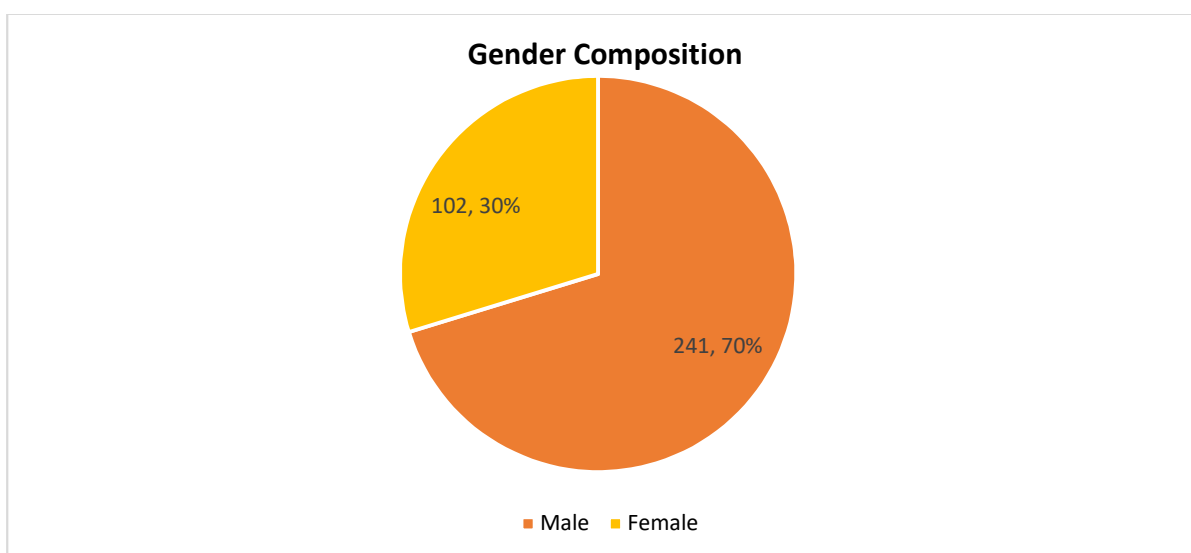


**Figure 4.6: Percentage of Respondent by Gender**
*Source: Social Survey, 2019.*

Out of all respondent surveyed 241(70%) are male and the rest of 102 respondents (30%) are females. This significant gap is due to the focus of this questionnaire that emphasizes on fishermen community which is dominantly occupied by male gender.

### 4.3.2   Age

The age distribution of all respondent was capped starting from 18 to above 60. This was to ensure that the respondent are fully understand the project intentions and have mature outlook and perspective towards the impact that might come to. Overall distribution of age

of respondents in the study area shows that the dominant age group is between 41-50 years. It made up of 32% of total respondent. The lowest is from the age group of 51-60 years old, which encompasses of 42 respondent (12%) of total respondent. (Refer **Figure 4.7**).
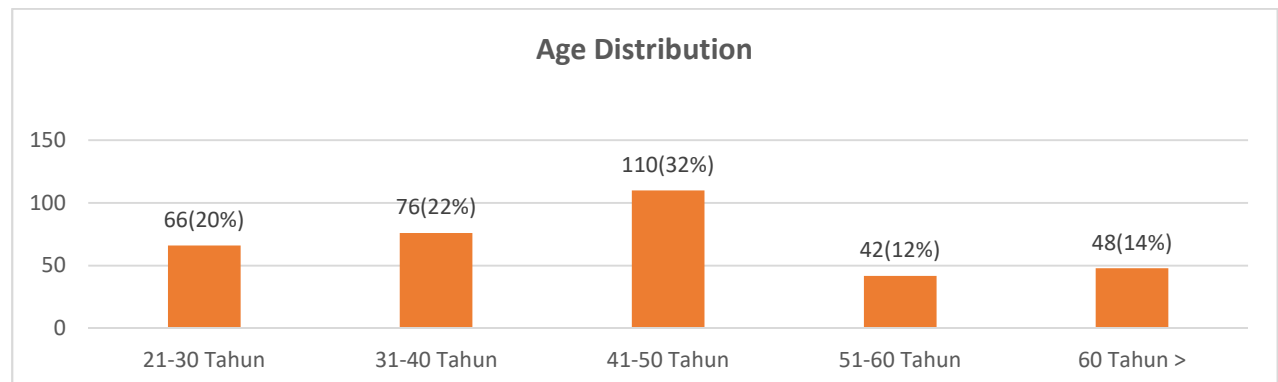


**Figure 4.7: Age Group**
*Source: Social Survey, 2019*

### 4.3.3 Education Level

Education is critical to social and economic development and has a profound impact on population development. In this sector the category was divided into 8 categories representing educational level in Malaysia (refer **Table 4.14**). Based on the data retrieved from the social survey, the highest educational attainment for respondents were in SPM Level (135 respondents or 39.8%). Followed with the respondents who studied until Primary School which takes up to 88 respondents (22.2%). Out all of the respondents, 5 respondents (1.5%) admit to have no formal education. Above all, majority of the respondents received basic education based on the high margin between no educations and lowest education received (primary school).

**Table 4.14: Respondents' Education Level**

| Education Level | No. Respondent | Percentage (%) |
|---|---|---|
| No Education | 5 | 1.5 |
| Primary School | 88 | 26 |
| PMR/LCE | 65 | 19.2 |
| SPM/SPMV/MCE | 135 | 39.8 |
| STP/STPM/HSC | 3 | 0.9 |
| Diploma | 26 | 7.7 |
| Degree | 15 | 4.4 |
| Lain-lain | 2 | 0.6 |
| Total | 339 | 100.0 |

*Source: Social Survey, 2019.*

### 4.3.4    Marital Status

Based from the data attained from the survey and tabulated **Table 4.15**, it has been identified that 257(74.9%) of the respondents were married. It puts the married category as dominant status of marital among respondents.  The percentage of the single respondent   comes second in which 75(21.9%) of respondent belongs in this category. Other than that, there's only about 3.21% out of total respondent are divorcee.

**Table 4.15: Respondents' Marital Status**

| Marital Status | No. Respondent | % |
|---|---|---|
| Single | 75 | 21.9 |
| Married | 257 | 74.9 |
| Divorcee | 11 | 3.21 |
| **Total** | **343** | **100** |

*Source: Social Survey, 2019.*

### 4.3.5    Occupation

**Table 4.16** shows the type of work for the whole respondent. For the employment sector, a total of 75 respondents (21.9%) stated their type of employment as Business Owners, ranging from food stall and tourism product (keropok lekor Losong). The second highest job employment is private sector worker where there are total of 73 respondents (21.3%) belong in the category.

**Table 4.16: Respondents' Occupation**

| Occupation | No. Respondent | Percentage (%) |
|---|---|---|
| **Unemployed** | 39 | 11.4 |
| **Farmers** | 10 | 2.9 |
| **Public sector** | 35 | 10.2 |
| **Private Sectors** | 73 | 21.3 |
| **Business Owners** | 75 | 21.9 |
| **Retiree** | 26 | 7.6 |
| **Fisherman** | 64 | 18.7 |
| **Others** | 21 | 6.1 |
| **Total** | 343 | 100 |

*Source: Social Survey, 2019.*

Fishermen is the third highest job of the respondents where a total of 64 respondent (18.7%) belongs in this category. The number of unemployed respondent was also recorded. There are about 39 respondent that is not working, 11.4% of the total respondent. 21 respondent (6.1%) of total respondent belongs to others as they admittedly to be self-employed.

### 4.3.6  Household Income

**Table 4.17** shows the distribution of household income for respondent in the study area. The average monthly household income was recorded at RM1501-RM2000, lower than the national average (2012) at RM2, 883. In the context of this study, the total monthly household income is divided into 9 categories. As a result of the questionnaire survey, the number of respondents earning around RM1500-RM2000 was the highest, at 107 respondents (31.5%), followed by category RM2001-RM3000, which was 80 respondents (23.5%). Both two highest category of income reflected the dominant occupation of the respondent in the area which is in public and private sector.

The third highest household income recorded is RM1000-RM1500, in which 72 respondents (21.2%) belongs in this category. 20 respondents (5.9%) earning household income within an estimated below RM500, followed by 10 respondents (2.9%) earning household income in an estimated RM3, 001 – RM4, 000 while 9 respondents (2.6 %) earning household income of RM4, 001 – RM5, 000 and there are 12 respondents (3.5%) who earn household income of more than RM6, 000.

**Table 4.17: Distribution of Household Income**

| Household Income | No. Respondent | Percentage (%) |
|---|---|---|
| <RM500 | 20 | 5.9 |
| RM500-RM1000 | 26 | 7.7 |
| RM1001-RM1500 | 72 | 21.2 |
| RM1501-RM2000 | 107 | 31.5 |
| RM2001-RM3000 | 80 | 23.5 |
| RM3001-RM4000 | 10 | 2.9 |
| RM4001-RM5000 | 9 | 2.6 |
| RM5001-RM6000 | 4 | 1.2 |
| >RM6000 | 12 | 3.5 |
| Total | 340 | 100.0 |

*Source: Social Survey, 2019.*

### 4.3.7  Residency Period

Based on **Table 4.18**, respondent period of staying in the area is dominantly above 20 years, where it is recorded 269(78.4%) are in the category. It can be assume that the respondent is attached  to the area due to long period of residency  Second highest period of residency is 0-4 years, 29(8.4%) respondents agree that   they are belong in this category. As for respondents living in area radius of 0-1km from site boundary, majority has been also living more than 20 years (88 respondent or 81%).

**Table 4.18: Distribution of Residency Period**

| Period of Residency | No. Respondent | % |
|---|---|---|
| 0-4 years | 29 | 8.4 |
| 5-10 years | 26 | 7.6 |
| 11-15 years | 9 | 2.6 |
| 16-20 years | 10 | 2.9 |
| >20 years | 269 | 78.4 |
| Total | 343 | 100 |

*Source: Social Survey, 2019.*

**Table 4.19: Distribution of Residency Period by 1km**

| Period of Residency | Distance from Project Boundary | % |
|---|---|---|
| | 0-1km | |
| 0-4 years | 9 | 8.3 |
| 5-10 years | 5 | 4.6 |
| 11-15 years | 3 | 2.8 |
| 16-20 years | 4 | 3.7 |
| >20 years | 88 | 80.7 |
| Total | 109 | 100 |

*Source: Social Survey, 2019.*

### 4.3.8 Property Ownership

The types and ownership of dwellings the respondent lives in are expected to reflect their socio-economic status within the community. In regards of the type of land ownership majority of respondent, that is 306 people (89.2%) admit to have ownership of the house and land they lived in. While the 37 respondent (10.8%) resolve in renting the property (**Table 4.20**). 92(84%) of the respondents living in 0-1km radius from site boundary owned their property while the rest of 17 respondents (16%) chose to rent **(Table 4.21).**

**Table 4.20: Composition of Respondent property Ownership**

| Property Ownership | No. Respondent | % |
|---|---|---|
| Owner | 306 | 89.2 |
| Rental | 37 | 10.8 |
| Total | 343 | 100.0 |

*Source: Social Survey, 2019.*

**Table 4.21: Composition of Respondent property Ownership (1 KM)**

| Property Ownership | No. Respondent | % |
|---|---|---|
| Owner | 92 | 84 |
| Rental | 17 | 16 |
| Total | 109 | 100.0 |

*Source: Social Survey, 2019.*

### 4.3.9  Basic Infrastructure and Public Facilities

The residents within the ZOI are supplies with basic amenities such as electricity's, piped water, waste collection, school, clinics, and place of worships. Even though the area dominantly inhabits by Malay ethnics there are still religious facilities for Indian and Chinese ethnics, as reflected in the survey findings and site study. **Table 4.22** shows the respondents' view on the availability of the public amenities and services in the area.

**Table 4.22: Basic Infrastructure and Public Facilities within ZOI**

| Basic Infrastructure | No. Respondent | | | |
|---|---|---|---|---|
| | Yes | % | No | % |
| Water Supply | 335 | 97.7 | 8 | 2.3 |
| Electrical Supply | 335 | 93.0 | 8 | 3.0 |
| Waste Management | 303 | 88.3 | 40 | 11.7 |
| Tele Communication | 322 | 93.9 | 21 | 6.1 |
| Road | 329 | 95.9 | 14 | 4.1 |
| Sewage System | 313 | 91.3 | 30 | 8.7 |

*Source: Social Survey, 2019.*

### 4.3.9.1 Education Facilities

By referring to **Figure 4.8**, majority of respondent which make up for 98% of total respondent admit to received and use educational facilities in surrounding area. Only a small portion of 2%, respondent admit to not receive the facilities in their respective settlements. Upon the satisfactory of the infrastructure majority of the respondent are satisfy (**Table 4.23**).

**Table 4.23: Education Facilities within ZOI**

| Education Facilities | No. Respondent | | | |
|---|---|---|---|---|
| | Yes | % | No | % |
| Kindergarten | 338 | 94.7 | 5 | 1.3 |
| Primary School | 338 | 94.7 | 5 | 1.3 |
| Secondary School | 334 | 93.8 | 9 | 2.3 |

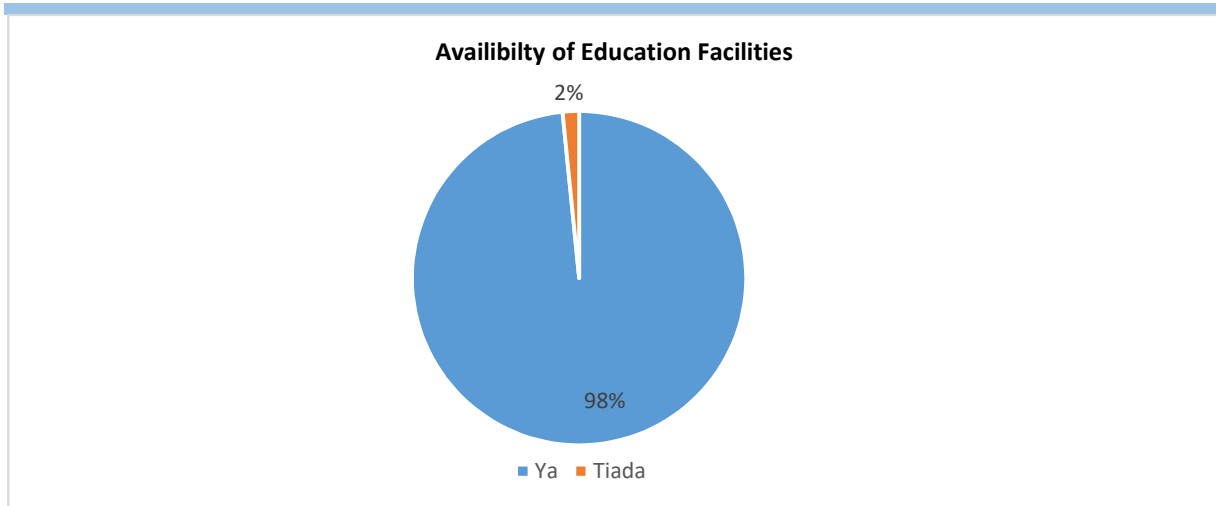*Source: Social Survey, 2019.*

**Figure 4.8: Availability of Education Facilities for Respondents**

*Source: Social Survey, 2019.*

4.3.9.2 Religious Facilities

From **Table 4.24** and **Figure 4.9,** majority of respondent which make up for 89% of total respondent admit to received and use religious facilities in surrounding area. Only a small portion of 11%, encompass of 44 respondent admit to not receive the infrastructure in their respective settlements.

**Table 4.24: Satisfactory of Religious Facilities**

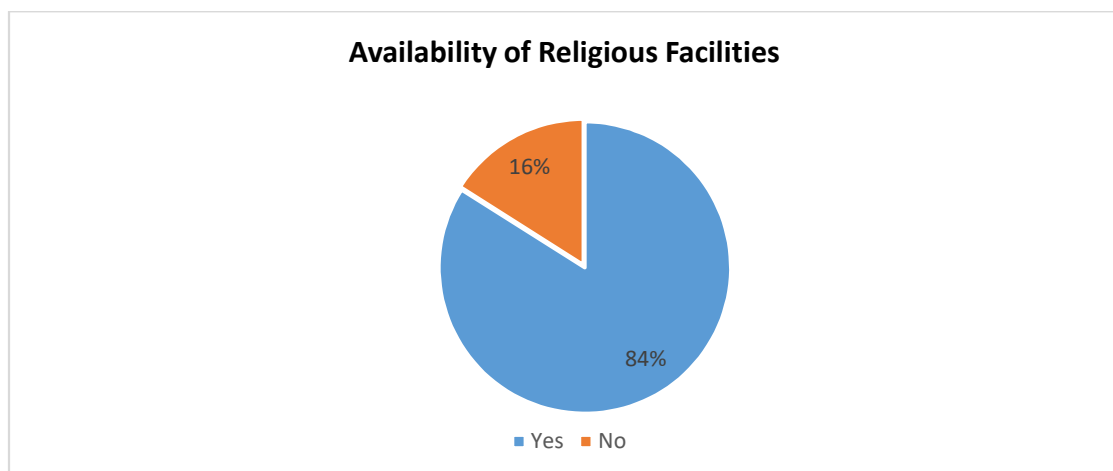| Religious Facilities | No. Respondent | | | |
|---|---|---|---|---|
| | Yes | % | No | % |
| **Musolla** | 324 | 94.5 | 19 | 5.5 |
| **Mosque** | 331 | 93.9 | 12 | 6.1 |
| **Temple** | 253 | 73.8 | 90 | 26.2 |
| **Church** | 244 | 71.1 | 99 | 28.9 |

*Source: Social Survey, 2019.*



**Figure 4.9: Availability of Religious Facilities for Respondent**

*Source: Social Survey, 2019.*

### 4.3.9.3 Other Public Facilities

Other facilities that should be provided within the settlements areas are community hall, clinic and public library. Based on the **Table 4.25**, these three public facilities are available within respondents' residential areas, which located within the ZOI 5km radius. Therefore, the facilities provided for public are sufficient for local people.

**Table 4.25: Satisfactory of Community Facilities**

| Social Facilities | No. Respondent | | | |
|---|---|---|---|---|
| | Yes | % | No | % |
| **Community Hall** | 319 | 93.0 | 24 | 6.9 |
| **Clinic** | 337 | 98.5 | 6 | 1.5 |
| **Public Library** | 286 | 83.0 | 57 | 17.0 |

*Source: Social Survey, 2019.*

### 4.3.10  Social Problem Surrounding Community Area

Respondents were asked about the current social problems faced in the study area. The social impact of this study assesses the social impacts directly and indirectly as a result of development proposals. These social impacts are discussed from the point of view of the villagers towards their surrounding areas. Perceptions from the population and surrounding businesses are also taken into account in analysing this impact. **Table 4.26** shows respondents view on the social problems happening in surrounding area. It is believe the beach erosion is part of main social issue that has been residents concern. **Figure 4.10** to **Figure 4.12** shows the distribution of social problem (Coastal erosion, Water pollution and Flood) that were reported by the respondents. This were mainly caused by domestic waste according to respondents

**Table 4.26: Social Problem within ZOI 5km Radius**

| Social Problem | Respondent | | | | Total | |
|---|---|---|---|---|---|---|
| | Yes | (%) | No | (%) | No. | (%) |
| Coastal erosion | 141 | 41 | 202 | 59 | 343 | 100% |
| Livestock | 89 | 26 | 254 | 74 | 343 | 100% |
| flood | 81 | 24 | 262 | 76 | 343 | 100% |
| road damage | 89 | 26 | 254 | 74 | 343 | 100% |
| cleanliness of the surrounding area | 117 | 34 | 226 | 66 | 343 | 100% |
| Water Pollution | 137 | 40 | 206 | 60 | 343 | 100% |

*Source: Social Survey, 2019*

## 4.3.11 Health Status

During the survey, the respondent were asked of their current state of health condition. The answer divided into 3 possible response which is healthy, not very healthy, and unwell/sick as seen in **Table 4.27**. There are no recorded respondent to be unwell/sick on the period of the interview was done. Majority of the respondents 296 respondents (86%) belong in healthy condition.

**Table 4.27: Respondents health status**

| Health Condition | No. Respondent | Total (%) |
|---|---|---|
| Healthy | 296 | 86 |
| Not very Healthy | 47 | 14 |

*Source: Social Survey, 2019.*

**Figure 4.10: Distribution of reported social problem (Flooding Problem)**
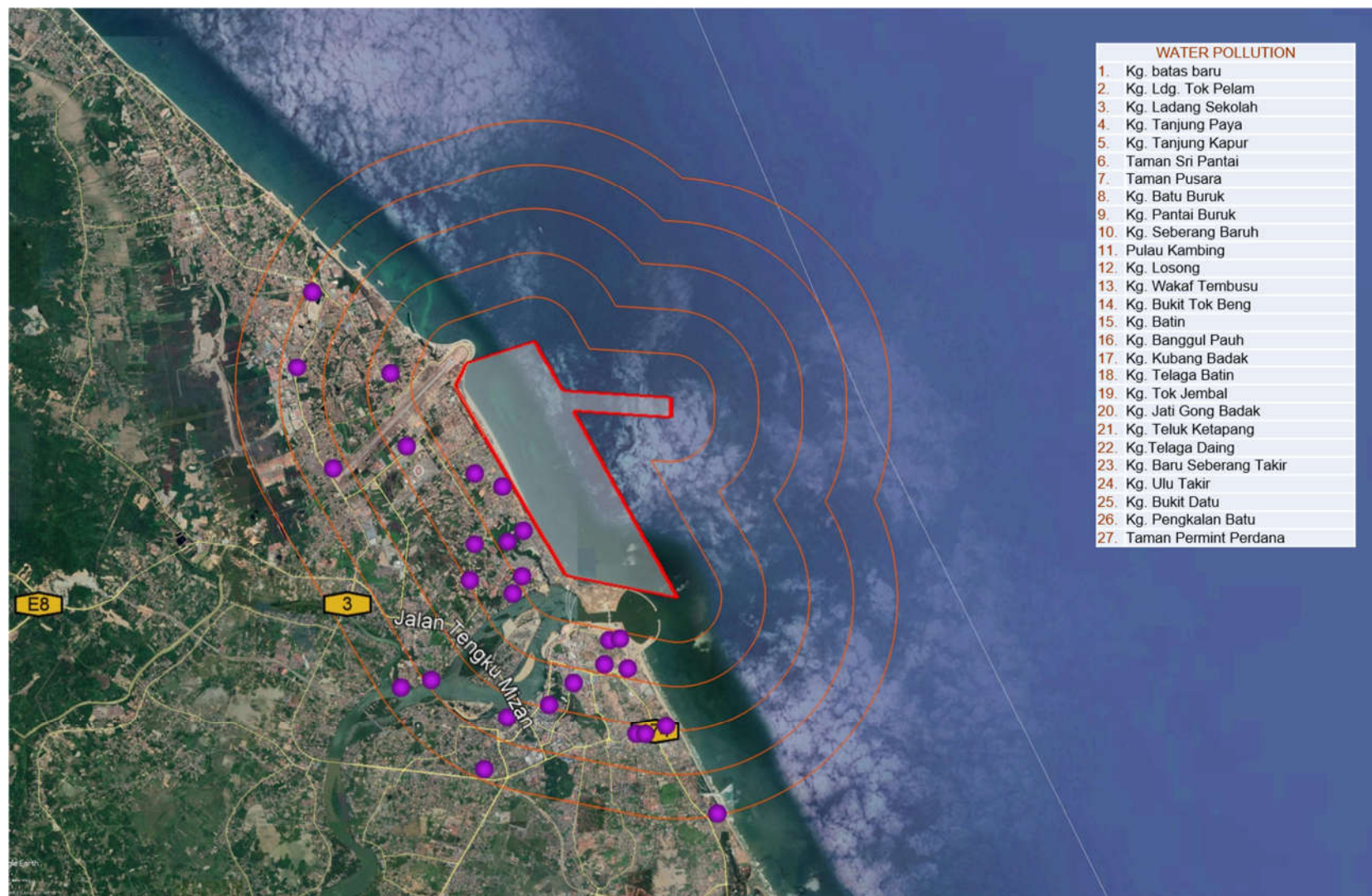
*Source: Social Survey, 2019.*

**WATER POLLUTION**
1. Kg. batas baru
2. Kg. Ldg. Tok Pelam
3. Kg. Ladang Sekolah
4. Kg. Tanjung Paya
5. Kg. Tanjung Kapur
6. Taman Sri Pantai
7. Taman Pusara
8. Kg. Batu Buruk
9. Kg. Pantai Buruk
10. Kg. Seberang Baruh
11. Pulau Kambing
12. Kg. Losong
13. Kg. Wakaf Tembusu
14. Kg. Bukit Tok Beng
15. Kg. Batin
16. Kg. Banggul Pauh
17. Kg. Kubang Badak
18. Kg. Telaga Batin
19. Kg. Tok Jembal
20. Kg. Jati Gong Badak
21. Kg. Teluk Ketapang
22. Kg.Telaga Daing
23. Kg. Baru Seberang Takir
24. Kg. Ulu Takir
25. Kg. Bukit Datu
26. Kg. Pengkalan Batu
27. Taman Permint Perdana

**Figure 4.11: Distribution of reported social problem (Water pollution)**

*Source: Social Survey, 2019.*

**COASTAL EROSION**
1. Kg. batas baru
2. Kg. Ldg. Tok Pelam
3. Kg. Tanjung Paya
4. Kg. Tanjung Kapur
5. Taman Sri Pantai
6. Taman Pusara
7. Kg. Batu Buruk
8. Kg. Pantai Buruk
9. Kg. Seberang Baruh
10. Pulau Kambing
11. Kg. Losong
12. Kg. Wakaf Tembusu
13. Kg. Bukit Tok Beng
14. Kg. Batin
15. Kg. Banggul Pauh
16. Kg. Kubang Badak
17. Kg. Telaga Batin
18. Kg. Pak Tijah
19. Kg. Tok Jembal
20. Kg. Jati Gong Badak
21. Kg. Teluk Ketapang
22. Kg.Telaga Daing
23. Kg. Baru Seberang Takir
24. Kg. Ulu Takir
25. Kg. Pengkalan Batu
27. Taman Permint Perdana

**Figure 4.12: Distribution of reported social problem (Coastal Erosion)**

*Source: Social Survey, 2019.*

## 4.3.12  Fisherman Profile

It is identified that the fishermen community in the study area are from Area Fishermen's Association Kuala Terengganu Utara and Kuala Terengganu Selatan. The total members of the two association combine is 1,796 fishermen which was referred as the total population of fishermen in the study area (**Table 4.28**).According to Kuala Terengganu fishermen Association there are currently 12 fishermen's village inside the study area as shown in  **Figure 4.14.** There are about 14 jetties and 1 main fish landing area as can be seen in **Figure 4.15**.

**Table 4.28: Population of Fishermen in Study Area**

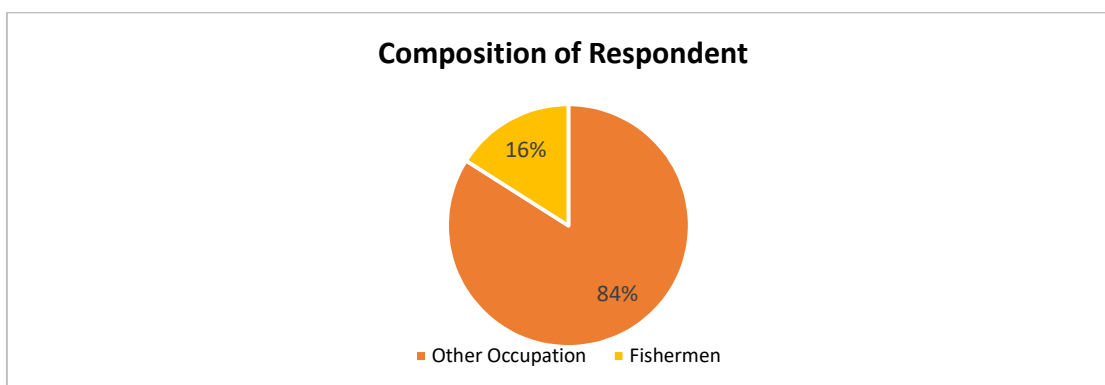| Area Fishermen's Association | Total Member |
|---|---|
| Kuala Terengganu Selatan | 1,061 |
| Kuala Terengganu Utara | 736 |
| Estimated population of Fishermen | 1,796 |

*Source: Social Survey, 2019.*



**Figure 4.13: Fishermen Occupation**

*Source: Social Survey, 2019.*

The findings from survey has identified that 64 out of overall 400 respondents who were questioned randomly within the radius of the proposed development radius were fishermen. It encompasses of 16% out of the total respondent (**Figure 4.13**). The youngest fishermen respondent recorded is under the 21-30 range of age while the highest age recorded are above 60. Result from survey shows that the majority of the fisherman are in the age of above 60.There are no respondent working as fisherman under the age of 19.

**Table 4.29: Fishermen Age Composition**

| AGE | No. Respondent | Percentage (%) | Cumulative % |
|---|---|---|---|
| < 20 | 0 | 0 | 0 |
| 21-30 | 5 | 8 | 8 |
| 31-40 | 15 | 23 | 31 |
| 41-50 | 14 | 22 | 53 |
| 51-60 | 13 | 20 | 73 |
| 60 > | 17 | 27 | 100 |

*Source: Social Survey, 2019.*