



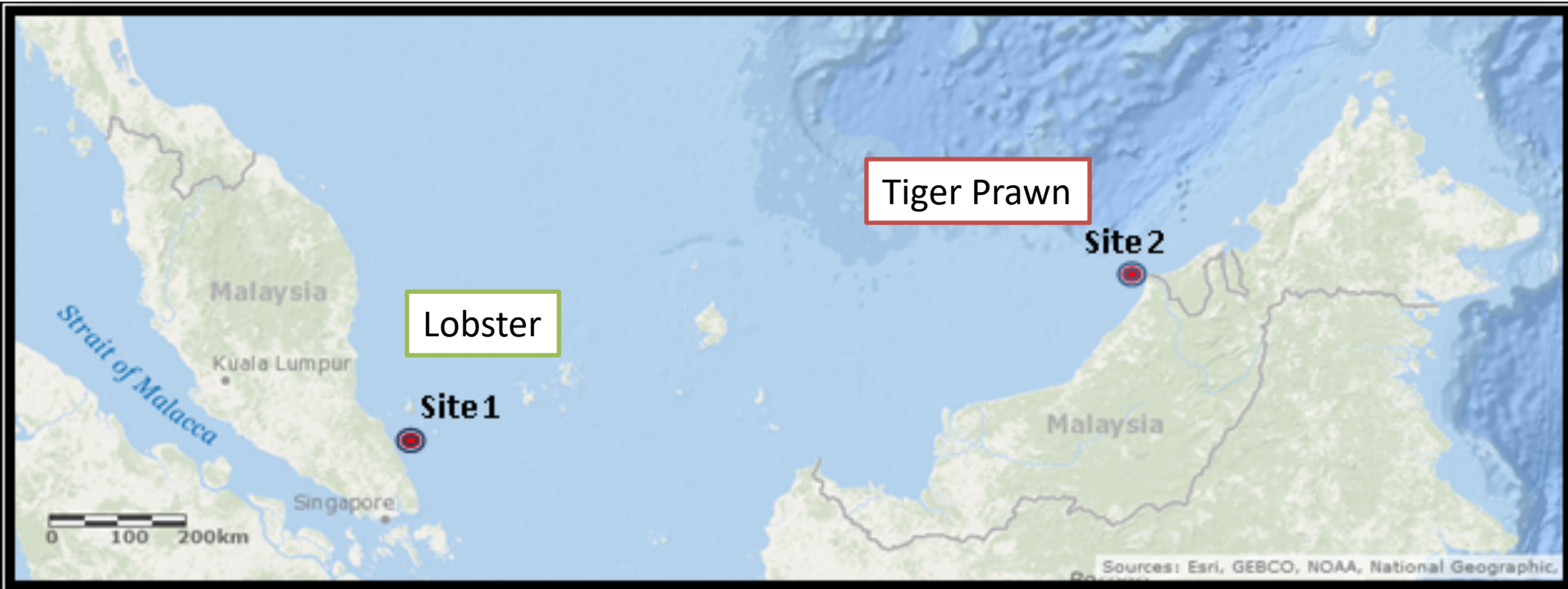
**SEAFDEC/UN ENVIRONMENT/GEF
Fisheries Refugia Project
Progress Report
By
Department of Fisheries Malaysia**

The 4th Regional Scientific and Technical Committee Meeting for the SEAFDEC/UN Environment/GEF Project on Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand, 22 July 2021 (online)

15 Priority Fisheries Refugia Sites and Target Species



Refugia Sites in Malaysia



1. Tanjung Leman, East Johor – Lobster (*Panulirus polyphagus*)
2. Kuala Baram, Sarawak – Tiger Prawn (*Penaeus monodon*)

Proposed Spiny Lobster Refugia at East Johor



Proposed Tiger Prawn Refugia at Kuala Baram, Miri, Sarawak



**Lobster
Research in
South Pahang-
East Johor**



PART 1: Progress and status of project implementation

Indicators	Name/Location/Province	Target Species	Status	Estimated Refugia Size (Hectares)	Marine Habitat linkage		Refugia Profile (done/not yet)
			In process (expected date)		Type (coral, seagrass, mangrove)	Estimated Size (ha)	
Fisheries Refugia Adoption	Site 1: Tanjung Leman, East Johor, Malaysia	Spiny Lobster (<i>Panulirus polyphagus</i>)	2022	140,023 ha (20x20nm)	Coral, Seagrass	Johor Marine Park: 76,565 ha Seagrass: 706 ha	Done
			<p>If not yet achievement, give a reason and strategic work plan including expected date for completion:</p> <ul style="list-style-type: none"> • For both sites, the estimated refugia size was agreeable among members. • The process of adoption will be finalized once the Refugia Management Plan is completed, assisted by the University of Malaya as a consultant. • The expected date of completion will be the end of 2022. • This is due to limited mobilization of staff to conduct stakeholder consultation due to pandemic, Covid-19 (Movement Control Order-MCO). 				

PART 1: Progress and status of project implementation

Willingness of fisheries and environment sectors to agree on Establishment of Fisheries Refugia:

- A spiny lobster the consultation program with local fishermen has been conducted in 2018.
- According to socio-economy survey done in 2020 (Norhanida *et al.*, 2020), willingness of fisheries and environment sectors to agree on Establishment of Fisheries Refugia were divided into, (1) awareness, (2) the benefits of refugia and (3) social and environmental protection.
- As a conclusion, around 90 % fishers agree on the spiny lobster refugia establishment. Therefore, the fishers suggested the Department of Fisheries Malaysia do consultation beforehand to ensure consent of all stakeholders involved in this fishery.

Spiny Lobster Refugia

Indicators	Site	List of the key community/stakeholder	Issues/problems in the establishment	How to achieve?
<p>community / stakeholder engagement in establishing of Fisheries Refugia and implementation of agreed management measures</p>	<ul style="list-style-type: none"> Refugia 1 	<ul style="list-style-type: none"> East Johor traditional fishers (near shore) Trawl net operators and fishers (commercial) Island inhabitants/tourism operators 	<ul style="list-style-type: none"> Unclear/lack of information about the implementation of refugia and its rules Compliance with “no-take” rule during specific refugia close season period 	<p>Stakeholder consultations and public awareness</p>

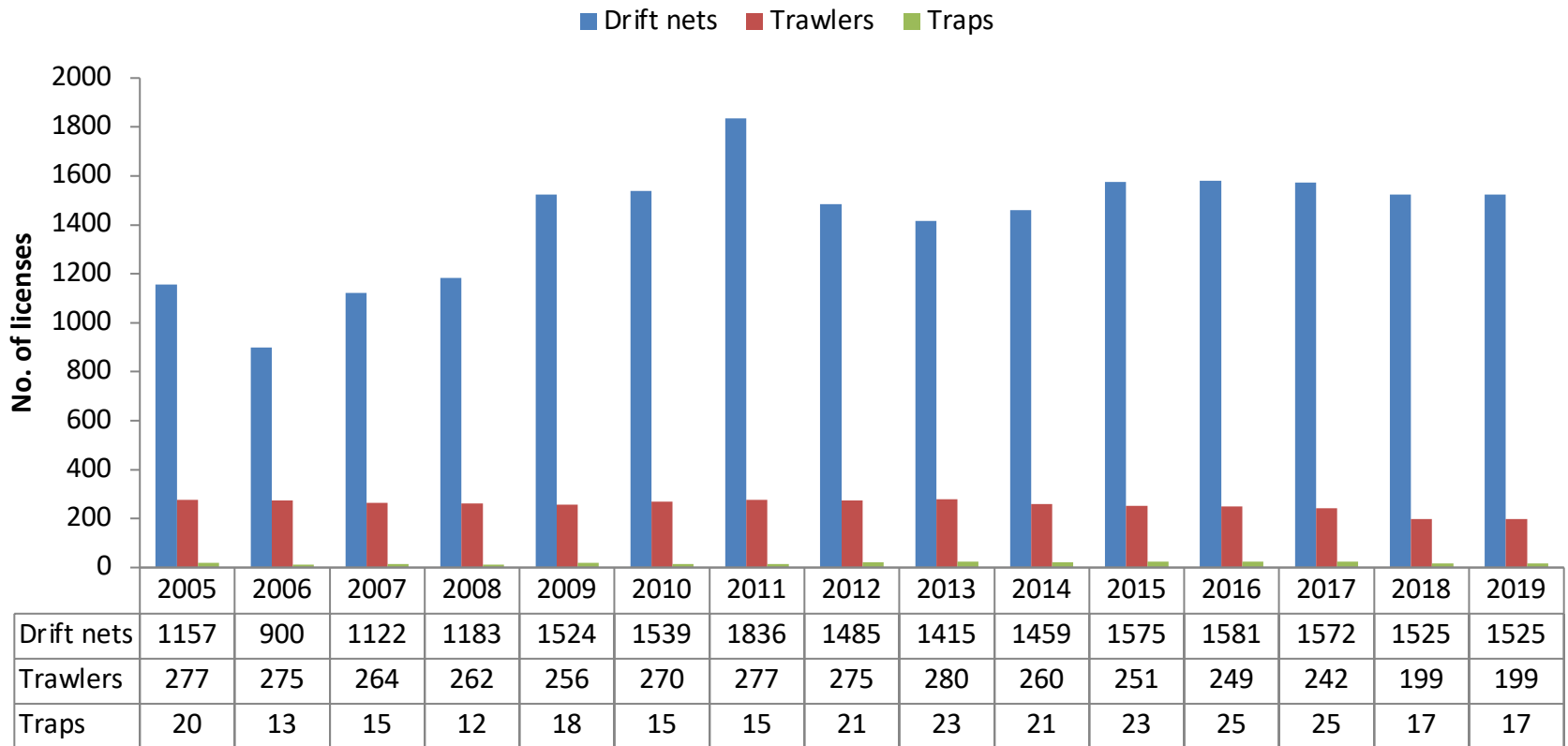
Reform of national policy, legal and regulatory frameworks governing the management of fisheries refugia

Indicators	Progress and status	Remarks
Reform of national policy, legal and regulatory frameworks governing the management of fisheries refugia	Regulations on the proposed areas will be drafted after obtaining approvals from State Government. Regulations will focus on: <ul style="list-style-type: none">• regulating allowable and prohibited fishing gears• regulating temporal closure during critical life stages in the areas• regulating development or other activities within the areas• penalties for encroachment and illegal activities or illegal harvesting	

Indicators	Sharing country experience on changing of fisherfolk attitude	Remarks
<p data-bbox="92 149 363 821">Status of enabling environment reform including extent of behavioural change among small-scale fisherfolk at refugia sites</p>	<ol data-bbox="401 149 1630 1278" style="list-style-type: none"> <li data-bbox="401 149 1630 535">1. Fishermen's participation in the management of refugia's is vital and urgent. The high degree of trust and understanding between the Department of Fisheries and members of the fishing community may be strengthened and extended throughout the Department so that fishers can rest certain that the Department is truly committed to safeguarding the sustainability of fished resources. <li data-bbox="401 606 1630 992">2. For the sustainable use of fisheries resources, active participation of fishermen and fishermen's communities is essential. It will pave the way for co-management, in which both resource users (fishers) and government agencies (Department of Fisheries) collaborate to address management concerns and share decision-making duties before taking action. <li data-bbox="401 1063 1630 1278">3. The Department of Fisheries has also designed and implemented several educational programs for fishers and the public on the importance of working together to safeguard fisheries resources and livelihood. 	

PART 2: Statistical Data

Number of fishing boat (licenses) at Spiny Lobster Refugia, East Johor
Year 2005 - 2019



Lobster Larvae Sampling, November 2020



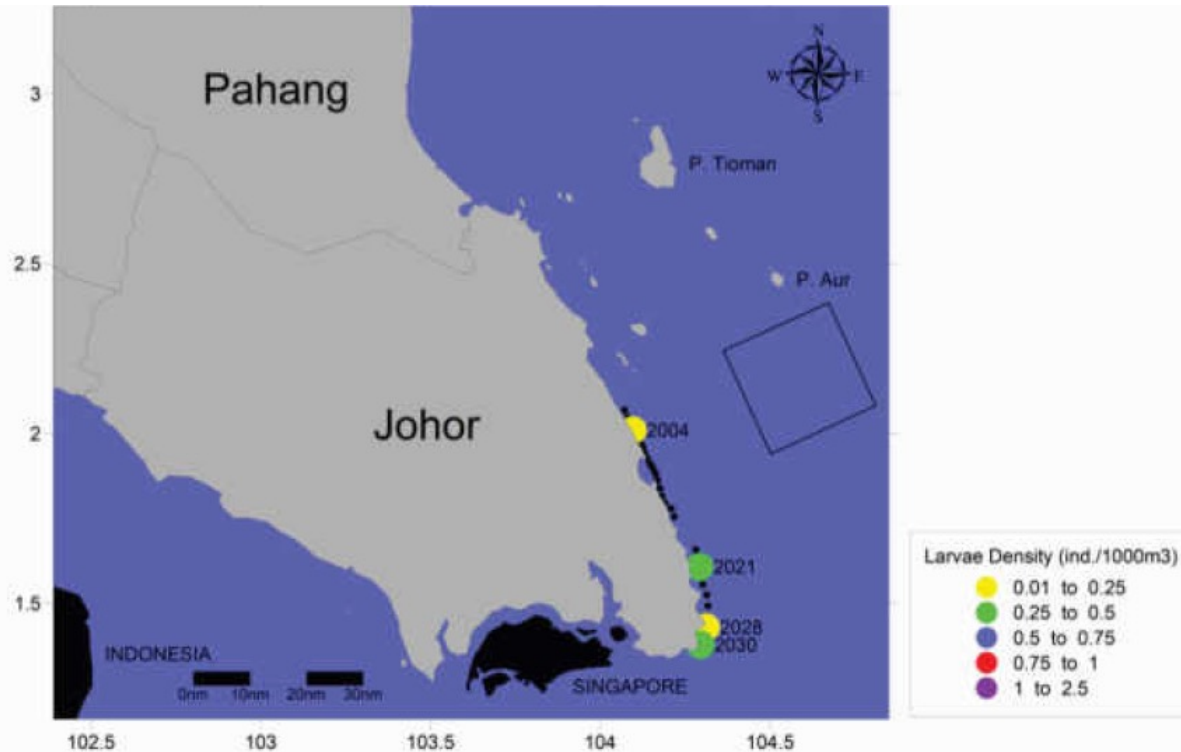


Figure 3: The density of spiny lobster phyllosoma (individuals/1000m³) ranged from 0.2 to 0.4 individual/1000m³. The proposed refugia area is marked with a square line and is located south of Pulau Aur

The results showed, that the lobster phyllosoma were found in four study locations with the average 0.27 ± 0.05 individual/1000m³.

The distribution of lobster phyllosoma were more concentrated around the southeast Johor area near Sungai Rengit



**TIGER
PRAWN
RESEARCH AT
KUALA
BARAM,
MIRI,
SARAWAK**

PART 1: Progress and status of project implementation

Indicators	Name/Location/Province	Target Species	Status	Estimated Refugia Size (Hectares)	Marine Habitat linkage		Refugia Profile (done/not yet)
			In process (expected date)		Type (coral, seagrass, mangrove)	Estimated Size (ha)	
Fisheries Refugia Adoption	Site 2: Kuala Baram, Miri, Sarawak, Malaysia	Tiger Prawn (<i>Penaeus monodon</i>)	2022	85,200 ha	Coral, mangrove	Miri-Sibuti Coral reefs National Park- 186,930 ha	Done
			<p>If not yet achievement, give a reason and strategic workplan including expected date for completion:</p> <ul style="list-style-type: none"> • For both sites, the estimated refugia size was agreeable among members. • The process of adoption will be finalized once the Refugia Management Plan is completed, assisted by the University of Malaya as a consultant. • The expected date of completion will be the end of 2022. • This is due to limited mobilization of staff to conduct stakeholder consultation due to pandemic, Covid-19 (Movement Control Order-MCO). 				

PART 1: Progress and status of project implementation

Willingness of fisheries and environment sectors to agree on Establishment of Fisheries Refugia:

- In 2017, one consultation program was held with stakeholders and local fishermen for Tiger Prawn Refugia.
- In 2018, two meetings with stakeholders and other local agencies, such as the Sarawak State Planning Unit, Miri Port Authority, and the Forestry Department, were held to provide information and explanations on the importance of tiger prawn resources and the fisheries department's proposal to make Kuala Baram a tiger prawn fishery refugia.
- As a conclusion, around 90 % fishers agree on the tiger prawn refugia establishment. Therefore, the fishers suggested the Department of Fisheries Malaysia do consultation beforehand to ensure consent of all stakeholders involved in this fishery.

Tiger Prawn Refugia

Indicators	Site	List of the key community/stakeholder	Issues/problems in the establishment	How to achieve?
<p>community / stakeholder engagement in establishing of Fisheries Refugia and implementation of agreed management measures</p>	<ul style="list-style-type: none"> Refugia 2 	<ul style="list-style-type: none"> Fishermen Miri Port Authority 	<ul style="list-style-type: none"> Level of awareness/understanding the benefit of tiger prawn refugia usage conflict-overlap of refugia areas, more development to expand Kuala Baram to a larger shipping port 	<ul style="list-style-type: none"> Explanation and consultation by Dept. of Fisheries Meeting and discussion with Miri Port (win-win situation)

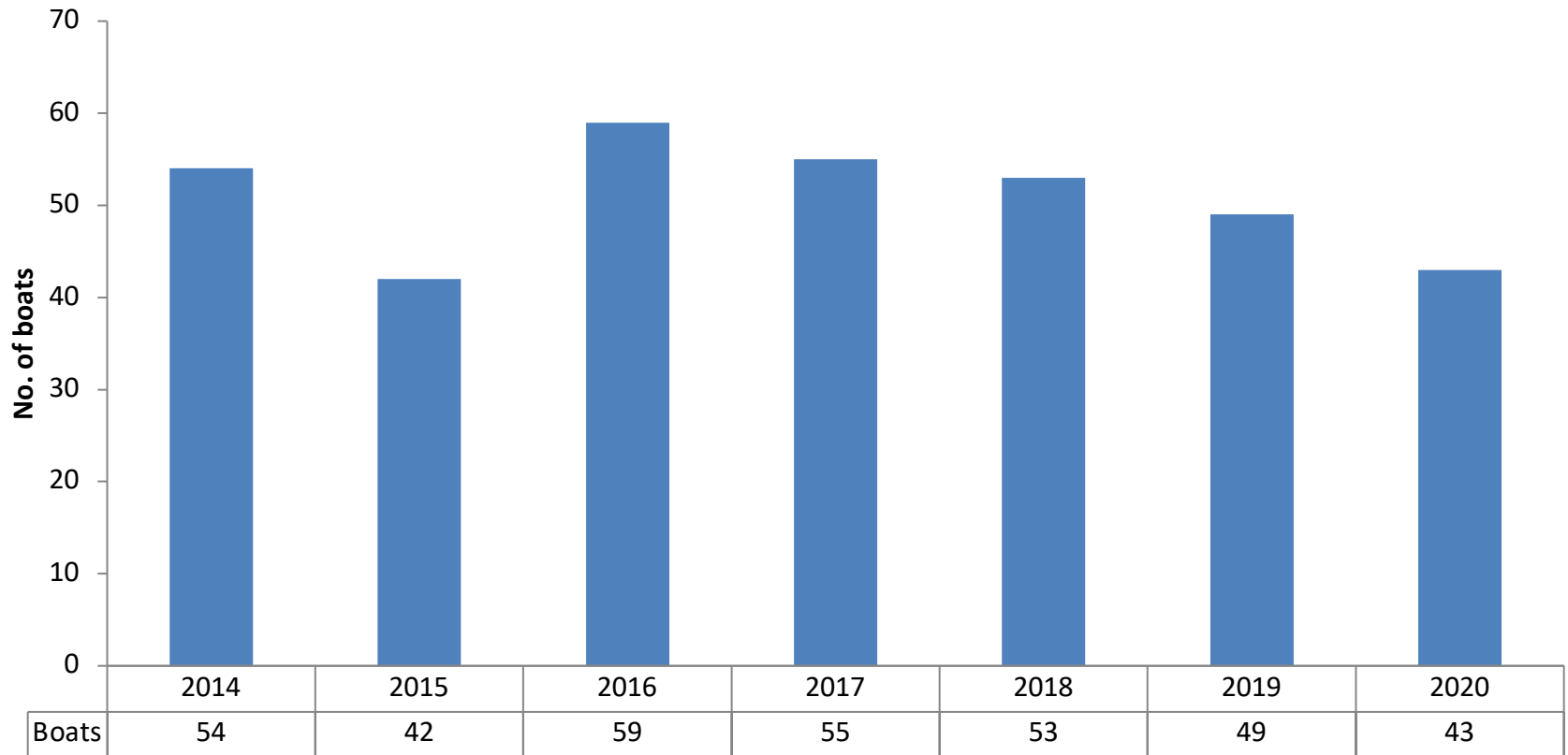
Reform of national policy, legal and regulatory frameworks governing the management of fisheries refugia

Indicators	Progress and status	Remarks
Reform of national policy, legal and regulatory frameworks governing the management of fisheries refugia	In progress	

Indicators	Sharing country experience on changing of fisherfolk attitude	Remarks
<p data-bbox="92 149 363 821">Status of enabling environment reform including extent of behavioural change among small-scale fisherfolk at refugia sites</p>	<ol data-bbox="399 149 1628 1278" style="list-style-type: none"> <li data-bbox="399 149 1628 535">1. Fishermen's participation in the management of refugia's is vital and urgent. The high degree of trust and understanding between the Department of Fisheries and members of the fishing community may be strengthened and extended throughout the Department so that fishers can rest certain that the Department is truly committed to safeguarding the sustainability of fished resources. <li data-bbox="399 606 1628 992">2. For the sustainable use of fisheries resources, active participation of fishermen and fishermen's communities is essential. It will pave the way for co-management, in which both resource users (fishers) and government agencies (Department of Fisheries) collaborate to address management concerns and share decision-making duties before taking action. <li data-bbox="399 1063 1628 1278">3. The Department of Fisheries has also designed and implemented several educational programs for fishers and the public on the importance of working together to safeguard fisheries resources and livelihood. 	

PART 2: Statistical Data

Number of Traditional Zone A –Drift Net (Less than 5 nautical miles) Boats at Tiger Prawn Refugia, Kuala Baram, Miri



Refugia Mini Seminar, Kuala Terengganu

30 Mac – 2 April 2021

