

Vietnam mixed species - trawl - FIP Vung Tau

Revised Fisheries Action Plan (FAP) May 2023

Workplan Version and Date	May 23, 2023 (version 2.1)
Start date (original FAP)	End date (anticipated month/year)
October 2021	December 2024
FIP Lead (organization/individual responsible for Action Plan)	Improvements recommended by (meeting/group that supported the development)
The Fishmeal & Fish Oil Association of Ba Ria - Vung Tau province	<ol style="list-style-type: none"> 1. Ba Ria - Vung Tau Fisheries Department (LE Tong Van, NGUYEN Van Bi) 2. Department of Marine Fisheries Resources Research of Research Institute Of Marine Fisheries (VU Viet Ha, TRAN Van Cuong, MAI Cong Nhuan, HOANG Minh Tung) 3. Fishery Management Department / Institute for Marine Science & Fishing Technology - Nha Trang University (TRAN Van Hao) 4. Kim Delta T&C (NGUYEN Kim Thanh) 5. Marin Trust peer reviewer
FIP Coordinator (organization/individual responsible for reporting on FisheryProgress)	Work Plan developed by (consultant or person)
KIM DELTA T&C <ol style="list-style-type: none"> 1. STARMANS Steven - Project Manager 2. NGUYEN Kim Thanh - Project Coordinator 	STARMANS Steven / Kim Delta T&C NGUYEN Kim Thanh / Kim Delta T&C

Acronyms

BRVT	Ba Ria - Vung Tau province
MARD	Ministry of Agriculture and Rural Development
DARD	Department of Agriculture and Rural Development (provincial level)
Sub-DFish	Sub Department of Fisheries (provincial level)
SORESIMF	South Research Sub-Institute for Marine Fisheries
EEZ	Exclusive economic zone
ETP	Endanger, Threaten and Protected
ToR	Terms of References

CPUE	Catch per unit effort
VMEs	Vulnerable Marine Ecosystems
UoA	Unit of Assessment, or trawl fisheries of BRVT

Unit of Assessment(s)

UoA 1	Description
Target species (common and scientific name)	<p>Multispecies, demersal resources</p> <p>1. Reduction component</p> <ul style="list-style-type: none"> • Various small/low value fish • Juveniles of higher value commercial fish <p>2. Main fishery resource</p> <p>Typical species:</p> <ul style="list-style-type: none"> • Greater lizardfish (<i>Saurida tumbil</i>); • Blunt-nose lizardfish (<i>Trachinocephalus myops</i>); • Sulphur goatfish (<i>Upeneus sulphureus</i>); • Bigeye scad (<i>Selar crumenophthalmus</i>); and • Yellowtail scad (<i>Atule mate</i>)
Stock	Demersal resources
Geographical area	<p>Southeast Area of Vietnam (the coastal waters, inshore waters under administration of Ba Ria - Vung Tau province) and waters from the inshore route to the outer boundary (offshore) of Vietnam's exclusive economic zone (EEZ).</p> <p>Fishing area FAO 71</p>
Fishing method or gear type	Otter trawl, Pair trawl
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	<p>All trawl fleets registered and licensed by People's Committee of Vung Tau</p> <p>Trawl fleets allowed to land at ports in Ba Ria - Vung Tau province</p>

Fishery Assessment (July 2021)

Section 1 – Management/governance framework

1. Gap description

M1 - Legislation, policy and plans: M1.7, M1.8 and M1.9

- The Ba Ria - Vung Tau (BRVT) fishery management plan is not complete, the existing provincial master plan to year 2030 has covered objectives for BRVT fisheries. However, the plan does not set out the activities necessary to achieve the stated objectives and does not include a budget for such activities.
- A specific trawl fisheries management plan for BRVT is not established, hence goals and operational objectives for trawl fisheries of BRVT are not set. Roles and responsibilities therefore are not assigned to related fishery management and partner organisations.

The reason for those gaps is because the provincial master plan was only issued in March 2021, it may take some time for the Department of Agriculture and Rural Development (DARD) of BRVT province and Sub-Department of Fishery (DOF) BRVT (as defined by organisational structure) to prepare and propose the implementation plan to BRVT People's Committee.

M2 - Institutions and stakeholders' engagement: M2. 5

Fisheries co-management is the oldest form of governance arrangement for coordination management between the government organisation and key stakeholders (local communities). This kind of arrangement has been piloted for about 20 years with financial and technical support from government, international and national NGOs. The implementation of fisheries co-management so far is not really effective. There are not any committees in place to facilitate coordination across stakeholders and jurisdictions. Experts of

Southeast Asia Fisheries Development Center (SEAFDEC) and World Fisheries Center (World Fish) states that an incomplete legal framework, the funding for the programs is not from the fishing grounds that the fishing community operates, limited awareness and capacity of fishermen and officials of authorities (from central to local level) on fishery co-management, not having enough qualified personnel to do the job are reasons of the failure.

M3 - Monitoring, control and surveillance: M3.3 and M3.4

- In 2020, the authorities of BRVT detected 102 violating fishing vessels, in which there are 28 cases of illegal fishing (fishing without a license, fishing in the wrong area, not equipped with tracking devices, not recording, not reporting)
- Only 40% of trawl fishing vessels (598 out of 1476 vessels) in BRVT are reported to hand-over their fishing logbooks to nominated authorities from the beginning of 2021 to June 2021.

Inspectors of the European Commission, through inspections of Vietnam's yellow card lifting process, concluded in their report that the coordination between the departments, ministries, branches and People's Committees of 28 coastal provinces and cities is not tight enough in exchanging information, detecting, preventing, investigating and promptly handling violations. The annual Sub-DOF of BRVT report said that they have a lack of resources to fully control the fisheries and effectively enforce applicable law and regulations.

2.FAP actions

In order to fill all above gaps, following actions need to be carried out:

Action 1.1: Fisheries management plan for the trawl fishery in BRVT

Action Number and Name	Action 1.1 Fisheries management plan (FMP) for the trawl fishery in BRVT
Gap addressed	M1.7: Rating from Gap to Pass
Justification	<ul style="list-style-type: none"> • No fisheries management plan (FMP) for the trawl fishery of BRVT • No specific goals and objectives • No allocation of roles and responsibility for management
Objective	Develop a Trawl Fisheries Management Plan (FMP) to support the Provincial Fisheries Master Plan through a co-management approach
Action Description	<p>1.1.1: Review of current trawl fishery management policies, objectives (including Master plan objectives) and management measures in place in BVRT (Start date: January 2022 - end date: 15 June 2023)</p> <p>1.1.1.1: Desk review of current trawl fishery management in BVRT in general and management [Report] (Delivery 05 – June 2023)</p> <p>1.1.1.2: Meeting with Sub-DOF BRVT about BVRT FMP from 2023 onwards [Meeting minutes and photo] (Delivery – 09 June 2023)</p> <p>1.1.1.3: Agreement with Sub-DoF [Signed agreement] (Delivery 30 June 2023)</p> <p>1.1.2: BVRT trawl FMP is developed and adopted by BRVT Sub-DOF (Start date: January 2023 - end date: December 2024)</p> <p>1.1.2.1: Approach and propose key stakeholders and lead agency for the co-management team of the BVRT fishery [Confirmation emails] (Delivery – 15 June 2023)</p> <p>1.1.2.2: Develop operational documents for the co-management team [Draft consortium agreement, Code of conduct] (Delivery – 31 May 2023)</p> <p>1.1.2.3: Develop a draft FMP template [FMP template] (Delivery – 28 June 2023)</p> <p>1.1.2.4: Form a trawl fisheries co-management team [Agreed consortium agreement] (Delivery – 29 June 2023)</p> <p>1.1.2.5: Follow up with signing operational documents [Signed consortium agreement] (Delivery 17 July 2023)</p> <p>1.1.2.6: Develop a workplan on developing a FMP that links with all the other FAP actions [Co-management team work plan] (Delivery – 20 June 2023)</p> <p>1.1.2.7: Analyse trawl fishery data [Analysis reports, Note link to actions 2.2, 2.3, 2.4, 2.5 and 2.6] (Delivery – regular reports up until July 2024)</p> <p>1.1.2.8: Conduct workshops with co-management team [Workshop reports] (Delivery August 2024)</p> <p>1.1.2.9: Conduct workshops with stakeholders [Workshop reports] (Delivery August 2024)</p>

	<p>1.1.2.10: Develop a first version of the Fisheries Master Plan and/or FMP [Draft FMP] (<i>Delivery –August 2024</i>)</p> <p>1.1.2.11: Propose the Sub-DOF BRVT incorporate the trawl fishery FMP in the Provincial Fisheries Master Plan [Meeting minutes, PPP agreement] (<i>Delivery December 2024</i>)</p>
Expected Start and Completion Date	January 2022 - December 2024
Priority	Very high
Estimated Cost	64.000 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - Sub-DOF BRVT - Sub-DFish - DARD BRVT - SOMERIMF - Derek Staples (Advisor) - Can Tho University - Co-management team

Action 1.2: Mechanism for fisheries information sharing with DARD, Sub-DOF BRVT and BRVT Port authorities

Action Number and Name	Action 1.2: Mechanism for fisheries information sharing with DARD, Sub-DOF BRVT and BRVT Port authorities
Objective	Support BRVT authorities for better management of trawl fisheries activities in the province.
Gap addressed	M1.7, M3.3 and M3.5: Rating from Gap to Pass
Justification	<ul style="list-style-type: none"> • Ineffective co-management and coordination mechanisms among stakeholders • Ineffective compliance and enforcement (MCS), including sharing of information on illegal, unregulated and unreported fishing (IUU)
Action Description	<p>1.2.1: Study about options for FIP Vung Tau to have trawl fishery data from the existing official fishery data system in Vietnam (<i>Start date: April 2022 - end date: August 2022</i>)</p> <p>1.2.1.1: Map existing fisheries information owners and sources of data among stakeholders and assess the current mechanisms for sharing data and information [Report] (<i>Delivery - August 2022</i>)</p> <p>1.2.1.2: Workshop for researchers to have an overview about collecting multispecies fishery data and sharing among stakeholders [Workshop report] (<i>Delivery - August 2022</i>)</p> <p>1.2.2: Develop agreements/MOU between FIP Vung Tau and key stakeholders about trawl fishery data sharing/collecting mechanism (<i>Start date: April 2022 - end date: December 2023</i>)</p> <p>1.2.2.1: Meetings to develop shared agreement for data sharing [Meeting minutes] (<i>Delivery - 08 December 2023</i>)</p> <p>1.2.2.1: Develop and share agreements/MOUs about data sharing [Drat mechanism] (<i>Delivery - 20 December 2023</i>)</p> <p>1.2.3: Develop the BRVT trawl fishery portal (<i>Start date: April 2023 - end date: 25 August 2023</i>)</p> <p>1.2.3.1: Develop BRVT trawl fishery portal [Portal to publish trawl fishery data/information] (<i>Delivery – 25 August 2023</i>)</p>
Expected Start and Completion Date	April 2022 – August 2023
Priority	High
Estimated Cost	12.615 USD

Responsible Parties

- **Kim Delta T&C**
- **SOMERIMF**
- IT provider
- DARD BRVT
- Sub-DFish BRVT
- Can Tho University
- Derek Staples (Advisor)
- Co-management team

Section 2 - Fishery risk ratings: Catch, ETPs, habitats and ecosystem

1. Gap description

Section 2a: Catch

Part A - Total aggregate catch:

- There are no reference points that have been set up yet.
- Data is not recorded at species level. Only 40% of trawl fishing vessels have implemented recording in fishery logbooks.
- Only biomass data at species level is reported.
- Data of total landings from fisheries, CPUE, species composition and catch composition are not available at species level.
- There is no evidence about effectiveness of existing management measures (seasonal closing regions, periodic fishing restrictions). Harvest strategies linked to Maximum Sustainable Yield (MSY) are not developed yet.
- Specific management objectives for trawl fisheries in BRVT are not included yet in the provincial plan.

Part B - High-risk species/species groups:

- A thorough and comprehensive study about high-risk species groups has not been conducted yet.
- Qualitative information to conduct a Productivity Susceptibility Analysis (PSA) is not sufficient.
- Lack of catch information on individual species.
- The status of high-risk species is unknown.
- No management measures have been developed.
- Management performance is not evaluated.

Section 2b - Endangered, threatened and protected species groups:

- A comprehensive study about the interaction/effects of the trawl fishery with/on ETP in BRVT waters is not conducted yet.
- The Mangroves for the Future report (2015) concluded that Marine Protected Area managers in Vietnam is not empowered to enforce laws and does not have adequate funding and staff with backgrounds in marine biology.

Section 2c - Habitats:

- A comprehensive study about the nature, distribution and vulnerability of the commonly encountered habitats in BRVT waters is not conducted yet.
- There are no scientific studies to evaluate interaction.
- No evidence to prove that a habitat management system exists.

Section 2d - Ecosystems:

- There is no information to identify the key ecosystem elements in BRVT waters, hence main impacts of the trawl fishery on these key ecosystem elements cannot be inferred.
- There is no evidence of species-specific management measures in place.

2.FAP Actions

Table 2.1 Collection of fisheries data

Action Number and Name	Action 2.1 Collection of fisheries data.
Objectives	Improve the quality of data collected for BRVT trawl fisheries
Gap addressed	A2, B2, C2: Rating from High risk to medium risk
Justification	<ul style="list-style-type: none"> Data of total landings from fisheries, CPUE, species composition and catch composition are not available at species level.
Action Description	<p>2.1.1 Develop guidance on data needs for assessing and monitoring the fish resources (<i>Start date: March 2022 - end date: July 2022</i>)</p> <p>2.1.1.1. Provide guidance on “Data needs for assessing and monitoring the fish resources in the multispecies trawl fisheries in BRVT” [Report] (<i>Delivery – July 2022</i>)</p> <p>2.1.2 Develop a trawl fishery sampling plan (<i>Start date: November 2022 - end date: March 2024</i>)</p> <p>2.1.2.1: Develop sampling plan and contract SORESIMF to collect data [Sampling plan and TOR] (<i>Delivery – March 2023</i>)</p> <p>2.1.3. Collect trawl data (<i>Start date: May 2023 - end date: June 2024</i>)</p> <p>2.1.3.1 Collect trawl data [Data and data reports entered into database] (<i>Ongoing- Final delivery – June 2024</i>)</p>
Expected Start and Completion Date	March 2022 - June 2024
Priority	High
Estimated Cost	114.069 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - SORESIMF - Fish Matters - Nha Trang University - Derek Staples (Consultant)

Table 2.2 The status and management of fisheries stocks

Action Number and Name	Action 2.2 Status and management of fisheries stocks
Objective	Assess the status of the stocks and develop management measures as inputs into the development of the FMP.
Gap addressed	A3-A6 and B3-B6: Expected rating from High risk to medium risk
Justification	<ul style="list-style-type: none"> • The status of the fishery resource is known with a low degree of certainty • The status of high-risk species is unknown. • No management measures have been developed.
Action Description	<p>2.2.1: Assess the impact of the trawl fishery on the fishery resource (Start date: May 2023 - end date: July 2024)</p> <p>2.2.1.1: Provide guidance on “Stock assessment methods for multispecies fisheries’ and “Review of past stock assessments results related to the BRVT trawl fishery” [Report] (Delivery – 26 May 2023)</p> <p>2.2.1.2: Conduct workshop to identify gaps in the assessments and agree on: the groups to be used aggregated assessment methods; a set of set of indicator species based on a PSA analyses (high risk, medium risk and low risk species) that will be used to guide management (10-15 species); how to assess the impact on juvenile fish of high-value species; target reference point (TRP) for the aggregate catch and limit reference point(s) (LRP) for the high-risk/vulnerable species [Workshop report] (Delivery – 3 August 2023)</p> <p>2.2.2.1 Conduct stock assessments based on existing and new data and input into the FMP [Assessment reports] (Ongoing Final delivery – July 2024)</p> <p>2.2.2. Develop mitigation measures as input into the FMP (start date: May 2024 - end date: August 2024)</p> <p>2.2.2.1: Share results with the trawl fishery co-management team [Report to co-management team] (Delivery –August 2024)</p> <p>2.2.2.2: Prepare results for input into stakeholder consultations and input into the FMP [Report and PPTs] (Delivery –August 2024)</p>
Expected Start and Completion Date	May 2023 – August 2024
Priority	High
Estimated Cost	4.800 USD

Responsible Parties	<ul style="list-style-type: none">- Kim Delta T&C- Derek Staples (Advisor)- SORESIMF- Co-management team
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Table 2.3 Status and management of the reduction component of the catch

Action Number and Name	2.3 Status and management of the reduction component of the catch
Gap addressed	C2-C6: Expected rating from High risk to Medium risk
Justification	<ul style="list-style-type: none"> • Insufficient data and information concerning the reduction component of the catch • The status of the reduction component is unknown • No management measures have been developed
Objective	Assess the status of the reduction component of the catch and develop measures as inputs into the development of the FMP
Action Description	<p>2.3.1 Assess the impact of the trawl fishery on the reduction component of the catch (<i>Start date July 2023 ; end date August 2024</i>)</p> <p>2.3.1.1: Analyse collected data by SORESIMF and draw conclusions about the status of the different categories of the reduction component of the catch for: aggregate by-product fish; aggregate trash fish catch and; stock assessments/risk assessments for indicator species [Reports] (<i>Ongoing Final delivery – July 2024</i>)</p> <p>2.3.1.2: Develop a monitoring program for tracking the species composition of the reduction catch, at annual intervals [Report] (<i>Delivery May 2024</i>)</p> <p>2.3.2: Develop mitigation measures as input into the FMP (<i>Start date: May 2024 - end date: August 2024</i>)</p> <p>2.3.2.1: Share analysis results with the trawl fishery co-management team for feedback [Report to co-management team] (<i>Delivery – August 2024</i>)</p> <p>2.3.2.2 Prepare results for input into stakeholder consultations and input to the FMP [Report and PPTs] (<i>Delivery – August 2024</i>)</p>
Expected Start and Completion Date	July 2023 – August 2024
Priority	Moderate
Estimated Cost	19.000 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - To be determined - Derek Staples (Consultant) - DARD BRVT - Sub-DOF BRVT - Co-management team

Table 2.4: Status and management of ETPs

Action Number and Name	2.4 Status and management of ETPs
Gaps addressed by the Action	Section 2b - Endangered, threatened and protected species (ETPs)
Objective	Assess the impact of the trawl fishery on ETPs and develop mitigation measures as inputs into the development of a FMP
Action Description	<p>2.4.1 Assess impact of the trawl fishery on the ETPs (<i>Start date: August 2023 – end date: August 2024</i>)</p> <p>2.4.1.1 Develop a list of ETPs for the BRVT based on IUCN, CITES, national lists etc [Report] (<i>Delivery July 2023</i>)</p> <p>2.4.1.2: Analyses data collected by SORESIMF - (i) observer data, (ii) interviews with fishers, (iii) landing site inspections and (iv) fish meal inspections [Report] (<i>Delivery – August 2024</i>)</p> <p>2.4.1.3: Conduct risk-based assessments of the impact of trawling on ETPS – direct impact and indirect (lost gear) [Report] (<i>Delivery – August 2024</i>)</p> <p>2.4.2 Develop mitigation measures as input into the FMP (<i>Start date: May 2024 – end date: August 2024</i>)</p> <p>2.4.2.1: Share analysis results with the trawl fishery co-management team for feedback [Report to co-management team] (<i>Delivery – August 2024</i>)</p> <p>2.4.2.2 Prepare results for input into stakeholder consultations and input to the FMP [Report and PPTs] (<i>Delivery – August 2024</i>).</p>
Expected Start and Completion Date	August 2023 – August 2024
Priority	Moderate
Estimated Cost	19.000 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - To be determined (CTU) - IUCN - Derek Staples (Advisor) - DARD BRVT - Sub-DOF BRVT - Co-management team

Table 2.5: Status and management of critical habitats

Action Number and Name	2.5 Status and management of critical habitats.
Gap addressed by the action	2c. Critical habitats
Objective	Assess the impact of the trawl fishery on critical habitats and develop mitigation measures as inputs into the development of a FMP
Action Description	<p>2.5.1: Assess the impact of the trawl fishery on critical habitats (<i>Start date: May 2023 – end date: August 2024</i>)</p> <p>2.5.1.2: Scientific desk review about the nature, distribution and vulnerability of the commonly encountered critical habitats in BRVT, including baselines of past distribution and habitat quality [Report] (<i>Delivery – 28 July 2023</i>)</p> <p>2.5.2.2 Risk-based assessment of the impact of trawling on critical habitats including direct impact of trawling and indirect impact of garbage and lost gear [Report] (<i>Delivery – August 2024</i>)</p> <p>2.5.2: Develop mitigation measures as input into the FMP (<i>Start date: May 2024 – end date: August 2024</i>)</p> <p>2.5.2.1: Share analysis results with the trawl fishery co-management team for feedback [Report to co-management team] (<i>Delivery – August 2024</i>)</p> <p>2.5.2.2: Prepare results for input into stakeholder consultations and input to the FMP [Report and PPTs] (<i>Delivery – August 2024</i>).</p>
Expected Start and Completion Date	May 2023 – August 2024
Priority	Moderate
Estimated Cost	15.000 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - To be determined (CTU) - IUCN - Derek Staples (Advisor) - DARD BRVT - Sub-DOF BRVT - Co-management team

Table 2.6 Status and management of ecosystem structure and function

Action Number and Name	2.6 Status and management of ecosystem structure and function
Gaps addressed by the Action	Section 2d - Ecosystems
Objective	Assess the impacts of the BRVT fishery of the structure and function of the ecosystem in BRVT and develop mitigation measures as input into the FMP
Action Description	<p>2.6.1: Assess the impact of the trawl fishery on the structure and function of the ecosystem (<i>Start date May 2023 – end date August 2024</i>)</p> <p>2.6.1.1: Scientific desk review on the changes in ecosystem structure (species composition) based on historic trawl surveys [Report] (<i>Delivery – 28 July 2023</i>)</p> <p>2.6.1.2: Review and describe any existing ecosystem models (e.g. Ecopath with Ecosim) that could be used to model the ecosystem dynamics of the BRVT marine ecosystem [Report] (<i>Delivery - August 2024</i>)</p> <p>2.6.2: Develop mitigation measures as inputs into the FMP (<i>Start date: May 2024 – end date: August 2024</i>)</p> <p>2.6.2.1: Share analysis results with the trawl fishery co-management team [Report to co-management team] (<i>Delivery – August 2024</i>)</p> <p>2.6.2.2: Prepare results for input into stakeholder consultations and development of the FMP [Report and PPTs] (<i>Delivery – August 2024</i>).</p>
Expected Start and Completion Date	April 2024 – August 2024
Priority	Moderate
Estimated Cost	2.000 USD
Responsible Parties	<ul style="list-style-type: none"> - Kim Delta T&C - To be determined (CTU) - IUCN - Derek Staples (Advisor) - DARD BRVT - Sub-DOF BRVT - Co-management team

Table 2.7 Project management for implementation of Fishery Improvement Project

Action Number and Name	2.7 Project Management
Gaps addressed by the Action	All identified gaps.
Action Goal	Ensure that all actions covered by this action plan are executed and achieve its goals within the agreed timeframe and budget.
Action Description	2.7.1 Develop ToRs & contracts 2.7.2 Organize workshops, conferences, meetings 2.7.3 Engage advisors at critical steps in the project 2.7.4 Administration and payments
Expected Start and Completion Date	January 2022 – December 2024
Priority	High
Estimated Cost	45.000 USD
Responsible Parties	- Kim Delta T&C