MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES

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Paramaribo, Suriname

FISHERIES MANAGEMENT PLAN FOR SURINAME

2021 – 2025

PART A, B and C

Directorate of Fisheries

March 2021

Quote as:

LVV, 2021. Fisheries management plan for Suriname 2021 – 2025 (Part A, B and C). Directorate of Fisheries, Ministry of Agriculture, Livestock and Fisheries. March 2021

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MINISTERIE VAN LANDBOUW, VEETEELT EN VISSERIJ

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Paramaribo - Suriname

VERKLARING

TER GOEDKEURING VAN HET

VISSERIJ MANAGEMENT PLAN 2021-2025

Het ministerie van Landbouw, Veeteelt en Visserij, te dezen vertegenwoordigd door de minister, dhr. Ing. Parmanand Sewdien en de vertegenwoordigers van de belanghebbenden binnen de visserijsector verklaren hierbij dat:

1. Het visserij management plan 2021-2025 tot stand is gekomen door gezamenlijke inspanning en samenwerking, waarbij de zienswijzen van partijen naar best vermogen zijn samengebracht tot een acceptabele plan voor de komende 5 jaren;

2. Wij de maatregelen die zijn opgenomen in dit plan ter bevordering van duurzame visserij ondersteunen, door optimale benutting van de natuurlijke visserij hulpbronnen, met minimale impact op het ecosysteem en toepassing van de Ecosystem Approach to Fisheries (EAF);

3. Wij ons committeren om samen te werken met elkaar en andere stakeholders, alsook regionale, multilaterale en internationale partners ter implementatie van het Visserij Management Plan 2021-2025, met inachtneming van nationale en internationale regelgeving, teneinde duurzaam beheer en exploitatie van onze natuurlijke visserij hulpbronnen te garanderen.

Paramaribo, 4 maart 2021

Ing. Parmanand Sewdien
De minister van Landbouw,
Veeteelt en Visserij

MINISTERIE VAN LANDBOUW, VEETEELT EN VISSERIJ
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FISHERIES MANAGEMENT PLAN FOR SURINAME

2021 – 2025

PART A: POLICY PLAN




Directorate of Fisheries

March 2021

Quote as:

LVV, 2021. Fisheries management plan for Suriname 2021 – 2025 (Part A: Policy plan). Directorate of Fisheries, Ministry of Agriculture, Livestock and Fisheries. March 2021

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Definitions and abbreviations

ABNJ	Areas Beyond National Jurisdiction
ACP	African, Caribbean and Pacific Group of States
AIS	Automatic Identification System
BRD	Bycatch Reduction Device
BV	Inland Water Fisheries
CBD	Convention on Biological Diversity
CEVIHAS	Central for fishing ports in Suriname
CLME	Caribbean Large Marine Ecosystem
CPUE	Catch Per Unit Effort (catch per unit fishing effort)
CRFM	Caribbean Regional Fisheries Mechanism
CSSI	Comprehensive Security Solutions Inc.
CSWG	Continental Shelf Fisheries Working Group
CVD	Certificate Of Goodness
FAO	Food and Agriculture Organization of the United Nations
FIRMS	Fisheries and Resources Monitoring System
FMP	Fishery Management Plan
GEF	Global Environmental Facility
GBT	Global Biodiversity Target
ICCAT	International Commission for the Conservation of the Atlantic Tunas
IOO	Illegal, Unreported and Unregulated (Fisheries)
HCR	Harvest Control Rule
LBB	the National Forestry Service
LME	Large Marine Ecosystem
LPWG	Large Pelagic Fish Resource Working Group
lvv	Ministry of Agriculture, Livestock and Fisheries
BUT	Maritime Authority Suriname

MCS	Monitoring Control and Surveillance
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental organization
NOAA	National Oceanic and Atmospheric Administration
NMA	National Environmental Authority
PCR	Public Certification Report

REBYC-II LAC Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries

RFMO	Regional Fishery Management Organization
RFB	Regional Fisheries Body
RFO	Regional Fishery Organization
ROGB	Ministry of Spatial Planning, Land and Forest Management
ROOM	Ministry of Spatial Planning and the Environment
SIFCO	Suriname Industrial Fisheries Cooperative
SK	Surinamese Coastal Fisheries
SKB	Surinamese coastal fishing Bangamary
IN	Suriname Seafood Association
SUNFO	Suriname National Fishersfolk Organization
TED	Turtle Excluder Device
UNDP	United Nations Development Programme
VCC	Fishing Collective Commewijne
VMP	Fisheries Management Plan
VMS	Vessel Monitoring System
WECAFC	Western Central Atlantic Fisheries Commission
WWF	World Wildlife Fund

Voorwoord

Het visserij management plan voor Suriname 2021-2025 is gefinaliseerd met de technische- en financiële ondersteuning van de Voedsel- en Landbouworganisatie van de Verenigde Naties (FAO) onder het CLME+ en het REBYC-II LAC project. Dit plan is opgesteld na evaluatie van het visserij management plan (2014-2018), gevolgd door uitgebreide consultaties van de stakeholders vanaf 2018. Vermeldenswaardig is dat vanwege de heersende COVID-19 pandemie, een aanzienlijk deel van de consultaties heeft moeten plaatsvinden via virtuele meetings, hetgeen een uitdaging is geweest. Als minister ben ik dankbaar voor het goed werk dat de afgelopen jaren is verricht in het kader van de oprichting en begeleiding van de verschillende vissersorganisaties met als gevolg de goede samenwerking. Net als bij het vorige, steunt dit management plan op de inbreng van vertegenwoordigers van de visserijsector en andere belanghebbenden. Op basis van die inbreng en met inachtneming van de Ecosystem Approach to Fisheries (EAF) principes, is een goede basis gelegd voor duurzame ontwikkeling van de visserijsector in de komende vijf jaren. Anders dan het vorig visserij management plan biedt dit plan de mogelijkheid voor een duurzame monitoring en tussentijdse bijsturing in samenspraak met de sector.

Nogmaals, mijn dank aan een ieder, die een bijdrage heeft geleverd aan de totstandkoming van dit plan.

Ten slotte roep ik alle stakeholders op om eensgezind op te treden ter realisatie van de beleidsdoelen, welke in het " Visserij Management Plan 2021-2025 " gezamenlijk vastgesteld zijn.

De Minister van Landbouw, Veeteelt en Visserij,

Ing. Parmanand Sewdien

Summary

The sea fishing sector is of great socio-economic importance for Suriname. The sector generates currency income through the export of fish and shrimp and supplies the local market with fresh fishery products. Thousands of people are directly or indirectly employed in the fishing industry, including sales and processing of fish and shrimp.
The Fisheries Directorate of the Ministry of Agriculture, Livestock and Fisheries has a leading role in the management of sea fisheries. In order to achieve good management, a multi-year plan (fisheries management plan) is used, which is established with the input of those involved in the sector.

The first fisheries management plan (VMP) ran for the period 2014 – 2018. After a period of evaluation and consultation in 2019 – 2020, the current plan was drawn up, with a duration from 2021 to 2025. During the consultations, several It came to be that the first VMP was strong in content and that the content is still relevant. However, implementation has left something to be desired because often no follow-up has been given to the intended policy measures.

The current VMP has a different approach that should enable better monitoring of the intended actions, and is divided into three parts for this purpose. **Part A** of this VMP is the general policy plan that sets out the objectives of the policy and formulates associated strategies and actions. Part A describes the policy to be pursued and formulates **what** must be done. The goals, strategies and actions are reiterated in part C of this VMP, the operational plan. This is a working document linked to each action with an indicator, as well as a timeline and the bodies responsible for its implementation. Part C therefore describes **who** will do certain things, and **when** that will happen. **Part** B, finally, is a background document to provide more information and clarity about the policy plan.

The general vision on fisheries policy is in line with the first VMP. Nevertheless, many matters have been made more precise and formulated in the current plan. Some spearheads of the fisheries policy 2021 – 2025 are:

- ÿ Active stakeholder participation in fisheries policy implementation and monitoring
- ÿ Limiting fishing effort by 'freezing' the number of licenses at the level of 2020, setting provisional ceilings and drawing up reduction plans
- ÿ Increased transparency in the licensing process
- ÿ Intensification of Monitoring, Control and Surveillance in collaboration with other authorities
- ÿ Reduction of ecosystem impacts of fisheries, including through increased implementation of TEDs and BRDs
- ÿ Improving fisheries data collection and research to perform stock estimates responsible for advising fisheries policy ÿ Intensive regional and international cooperation

In addition to these general points of attention, there are also specific goals, strategies and actions per fishery category. These measures are often also reflected in the License Conditions Decision. In order to monitor the implementation of this VMP, the progress and implementation of the plan will be discussed annually with stakeholders in the sector.

1 Introduction

In 2013, the Fisheries Management Plan for Suriname 2014-2018 was drawn up in the context of the ACP Fish II project. In this plan, the objectives of the Surinamese fisheries policy are described and the policy for the various forms of fisheries is laid down. The 2017-2021 Development Plan states that the Fisheries Management Plan (VMP) is an important instrument for developing various fisheries types and for achieving sustainable fisheries and that the updated VMP will be implemented to sustainably exploit fisheries resources.

An extensive stakeholder consultation was held in 2019 for the purpose of the revision of the VMP. In 2020, with the support of the FAO, a follow-up process was started in which a draft of the revised VMP was drawn up on the basis of the results of the aforementioned consultations and the findings of the Fisheries Directorate. This concept has been presented to all stakeholders in the Surinamese fisheries. This Fisheries Management Plan for Suriname 2021-2025 was subsequently drawn up based on the input of stakeholders.

The core of this Fisheries Management Plan for Suriname concerns the establishment of the fisheries policy for the planning period 2021-2025. This partly concerns the continuation of existing policy. However, the evaluation of the former plan has also given rise to policy adjustments and the formulation of new policies. The latter due to developments in fisheries and advancing insight into sustainable fisheries management.

With regard to the latter, it is particularly important that the fishing pressure on fish stocks in Surinamese waters has increased sharply in recent years. This is due to an increase in the number of permits, an increase in fishing capacity (use of longer nets, larger boats, etc.) as well as illegal fishing. There are also more and more signals that catches are declining as a result of too intensive fishing. There is therefore a risk that fishermen will increase their efforts to compensate for lower catches, for example by using stronger engines, longer nets or smaller mesh sizes, which would further increase fishing pressure. The main objectives of this plan are therefore the control or limitation of fishing capacity and the reduction of illegal fishing, in order to preserve the Surinamese natural resources of the sea for present and future generations.

This plan also pays attention to the effects of fishing on nature. In particular, measures have been formulated to reduce the amount of unwanted by-catches. This gives substance to one of the points of the ecosystem approach in fisheries management.

Sustainable exploitation of fish stocks means that no more is caught than the natural increase. This means that limits must be set on fishing pressure and that these limits are also monitored by consistent enforcement of the established rules. Compliance with the agreed measures can also be promoted by involving fishermen in fisheries management. The so-called co-management.

This plan contains the course of the Surinamese fisheries policy for the period 2021-2025. In order to meet the objectives of this plan, actions and measures have been formulated that are also included in the Operational Plan associated with this plan. The Operational Plan indicates what will be done by whom and when. With this Operational Plan, the progress with regard to the implementation of the measures in this plan can be monitored and evaluated annually. New measures can also be added where necessary. In addition to the Policy Plan (Part A) and the Operational Plan, there is also a Part B (Background Report) which contains further information about the fisheries sector and fisheries management in Suriname.

2. Fisheries Policy Objectives

The vision on the development of Suriname is laid down in the Development Plan 2017-2021 (OP 2017-2021). This plan also formulates the general objectives of the fisheries policy for this period.

For sustainable fisheries management, the policy will focus on undertaking and taking measures for the application of adapted fishing technology and methods. The policy will further focus on increasing production by adding more value to fish products, as well as making more efficient use of fish waste through further processing for human consumption and animal feed. The sector's legislative products are obsolete and updated bills will soon be presented to Parliament for consideration and approval. Institutionalized research and statistical programs will be used to analyze the statistics, which can provide insight for the development of good policy for the fisheries sector.

To sustainably exploit the fishing resources, the updated Fisheries Management Plan (VMP) will be implemented. The VMP is an important instrument for developing various types of fisheries and for achieving sustainable fisheries. The Coast Guard works closely with the Navy. With the adoption of the draft Coast Guard Act1 , it will be fully operational, improving safety at sea. To reduce 'bycatch and discard', measures will be taken to improve fishing techniques, use of BRDs (Bycatch Reduction Device) and discourage non-selective fishing methods. Research will be conducted into options for making better use of landed bycatch.'

Basic principles of Suriname's fisheries policy

The following basic principles are formulated for the Surinamese fisheries policy, partly on the basis of the Development Plan (OP) 2017-2021, the National Biodiversity Strategy and Action Plan (NBSAP) and the principles of the ecosystem approach with regard to sustainable fisheries:

- Fish stocks are a national asset and should therefore be managed in a way that they are benefit all Surinamese;
- The management of Surinamese fish stocks will be aimed at maintaining fish stocks in a level that guarantees a sustainable stable harvest;
- The consequences of fishing for the ecosystem are minimized;
- Fisheries produce food without wasting resources;
- The policy is partly aimed at achieving support for the policy among stakeholders; this is expressed in the involvement of interest groups in the implementation of the policy;
- The policy takes into account the socio-economic consequences of its choices (employment);
- Application of the precautionary principle;
- Application of the ecosystem approach (EAF);
- The policy must be simple, effective, executable and enforceable.

1 The Coast Guard Establishment Act (SB 2017 no. 32) has since been adopted.

Objectives of Suriname's fisheries policy

The main objective of Suriname's fisheries policy is to conserve the biological resources of the sea and a sustainable and balanced exploitation of these resources, whereby the impact of fisheries on the marine ecosystems must be as limited as possible. All this under responsible economic and social conditions.

Fisheries policy objectives derived from this are:

- achieving an optimal and ecologically sustainable exploitation of marine living resources;
- the conservation of marine living resources for both present and future generations;
- the application of the precautionary principle to the management and exploitation of living marine resources;
- the sustainable use of marine living resources to promote economic growth, development of to promote human capacity, capacity building within fisheries, improvement of working conditions on board fishing vessels and job creation;

- optimal conservation of ecosystems, including biological and abiotic aspects;
- the conservation of marine biodiversity;
- minimizing pollution from fishing and related activities;
- reduction of unwanted by-catches;
- promotion of the use of best available fishing techniques;
- improving control to ensure compliance with the rules;
- improving the quality and amount of information related to fish stocks and the marine ecosystem and promoting research that provides information and advice for better decision-making:
- participation of stakeholders and their (traditional) knowledge in the decision-making process.

The objectives are in line with the strategic direction for sustainable use and management of marine resources in the NBSAP:

- Applying the results of research and demonstration of sustainable resource use and harvesting to improve the management and protection of marine resources in the Exclusive Economic Zone (EEZ).
- Increasing the understanding of fishermen and others involved in marine resource harvesting of the need for sustainable use of marine resources through extension services, education, training and technology transfer. • Implementation of the Integrated Coastal Zone Management Plan through relevant agencies, local communities and conservation organizations.
- Strengthening local and regional cooperation to ensure effective monitoring and enforcement of fisheries conservation rules and management programmes.
- Participate in regional and global initiatives for the management of marine biological resources and seek financial and technical assistance to increase capacity to manage these resources.
- Promoting and raising awareness of the impact of land-based activities on marine biodiversity.

3. Brief description of the Surinamese fisheries

In Suriname, the scuttle bank and trap net fishing are traditionally practiced: activities that are carried out in the estuaries and near the coast. Industrial trawling for deep -sea shrimp *(Penaeus spp.)* started in the 1950s. The companies SAIL and SUJAFI were particularly active in this fishery. At the end of the seventies, the driftnet fishery from Guyana also made its appearance. The establishment of the 200-mile Exclusive Economic Zone in 1982 meant that the red snapper fishery operating from Venezuela also came under Surinamese jurisdiction. More recent developments in fisheries types and fleet concern the emergence of the seabob fishery, the fish trawling fishery and the large pelagic line fishery (mainly for tuna).

Surinamese fisheries can be divided into an artisanal and an industrial sector. Suriname's industrial fishery includes shrimp trawling (deep-sea shrimp, large sea shrimp and seabob shrimp), fish trawling, red snapper and mackerel (hand) line fishing and large pelagic line fishing. Traditional or local fisheries include driftnets, sheer nets, trap nets, span nets, gillnets, trawl nets and line fisheries. The artisanal fishing industry is subdivided into the Surinamese Coastal Fisheries (SK) and the Inland Waterways Fisheries (BV). The SK driftnet fishing is practiced with two boat types: the so-called open and closed Guyana boats. The SK vessels are not allowed to fish in the estuaries. In the estuaries, the line and gillnet fishing is carried out by dug-out boats. In addition, traps are used to fish for fish, seabob and white-bearer shrimp. Specific forms of fishing in the estuaries and along the mudbanks off the coast are the Schutbank fishery (Njawarie) and the Bangamary fishery. These two types of fishing have in common that fishing is carried out with relatively small mesh sizes.

Figure 1. SK closed Guyana boat.

The artisanal fleet lands the fish at various landing sites, including the fishing centers set up by the government and designated as landing sites. Important landing sites can be found in the Suriname River (Paramaribo, and Commewijne), the Nickerie River (Nickerie), the Coppename River (Boskamp) and to an increasing extent also the Marowijne River near Albina. There is no auction system for trading landed fish. The catch is sold by the fishermen to buyers (intermediaries) or directly to the processing companies.

The industrial fleet is largely in the hands of processing companies that usually land their catch for their own processing via the Central Fish Supply Port of Suriname (CEVIHAS) or at their own jetty.

Virtually all fish2 and all shrimp of the industrial fleet are landed at landing sites in the Suriname River in or near Paramaribo.

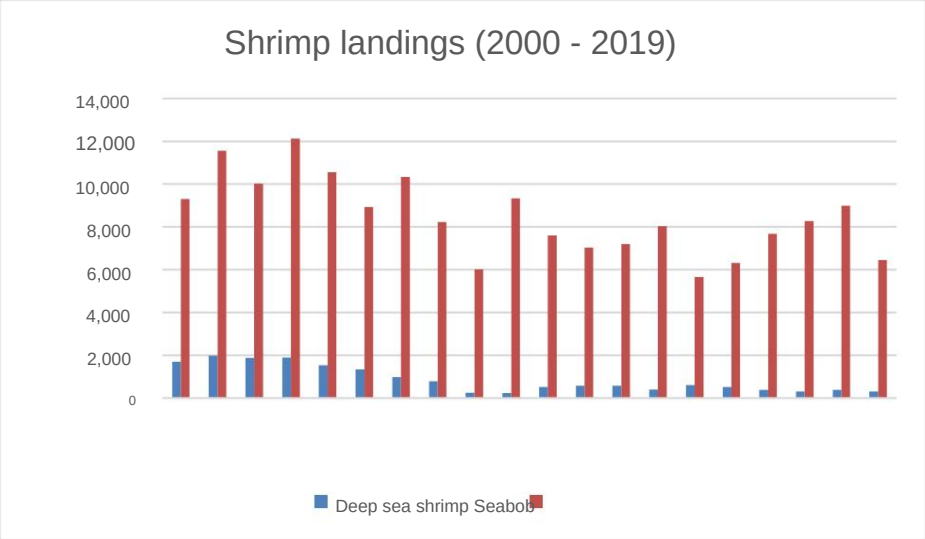

Figure 2. The supply of shrimps from Surinamese waters 2000-2019.

Figures 2 and 3 show the supply of shrimp and fish from the fleets operating in Surinamese waters in the period 2000-2019. The shrimp landing data (Figure 2) show that the catch of deep-sea and large sea shrimps declined sharply between 2001 and 2008. Catches of seabob shrimp have shown a slightly decreasing trend since 2000 and have moved between 5,500 and 9,000 tons since 2008.

The supply of fish rose sharply from 8,871 to 39,993 tons from 2008 to 2017, but then decreased significantly in 2018 and 2019. This strong decrease is due to a decrease in the registered landings of artisanal fisheries. Part of this decrease may be caused by under-reporting or the landing of fish from artisanal fisheries outside Suriname. The landings of the fishing trawl fleet accounted for about 30% of the total fish landings until 2015. Figure 3 shows that these landings show an increasing trend from 2015 onwards.

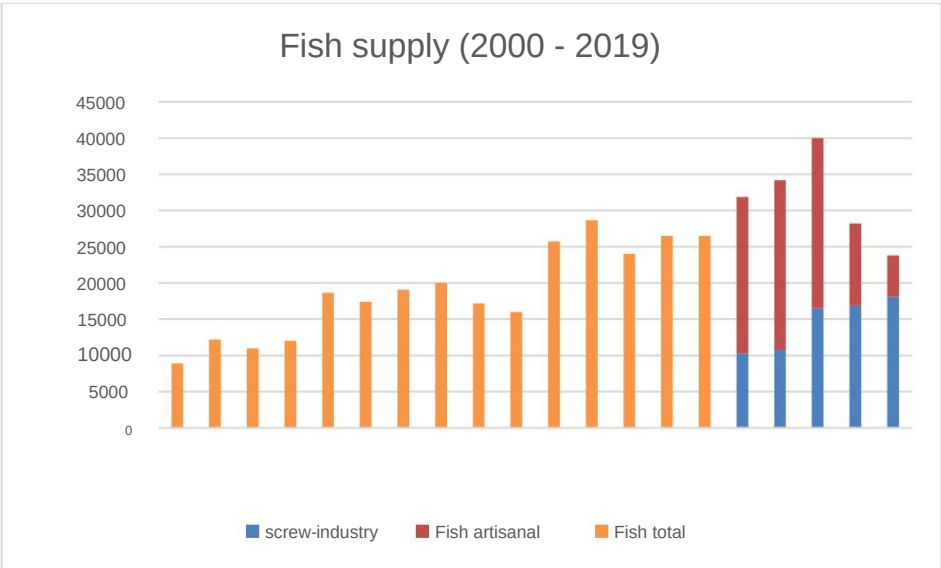

Figure 3. The supply of fish from Surinamese waters 2000-2019

2 Some of the fish are also landed in Nieuw Nickerie.

4. Governance, decision-making and participation

The Minister of Agriculture, Livestock and Fisheries, and in particular the Fisheries Directorate, is responsible for the implementation of the fisheries policy. The Fisheries Act also provides for an Advisory Council for Sea Fisheries, which includes representatives from the Ministry, the fishing industry and the coastguard. Strengthening cooperation between authorities involved in fisheries management is an important objective of the new fisheries policy.

Another aim of the Surinamese fisheries policy is to gain support for the policy, which is reflected in the involvement of stakeholders in the implementation of the policy. This involvement of stakeholders in fisheries management is known as co-management. For example, co-management may involve consulting users of natural resources before making decisions. After all, these users often have knowledge that can help the government in the decision-making process. If users are involved in decision-making and agree to new regulations or decisions, they are more likely to comply with them and possibly even help ensure that the new rules are enforced and complied with. However, the government is not obliged to follow the suggestions or advice of the users. Co-management can also mean that the natural resource is jointly managed by the users and the government. The responsibility is then shared by both parties. Certain aspects of management, such as access to natural resources, may then fall under the responsibility of the user group. This with the aim of improving the legitimacy of management regimes and compliance by transferring more responsibility to user groups.

The new fisheries policy also includes the formal establishment of a National Shrimp and Bottom Fish Working Group , so that stakeholders within the different fisheries categories can participate in decision-making by creating a forum for discussing overlapping issues and providing advice to the Minister.

Goal	Strategy and	Indicator	Timeline
management to **Strengthen support for fisheries policy through active stakeholder participation in the decision-making process**	**actions** Evaluation of the possibilities to transfer responsibilities for fisheries local organizations or authorities.	Evaluation done 31-12-	2022
	Annual stakeholder meeting to discuss implementation of the VMP	Annual meeting with active stakeholder participation	2021 - 2025
Promoting the quality of decision-making by using stakeholder knowledge in fisheries policy development	Active National Prawns and Bottom fish Working group that formulates advice for fisheries policy	Number of meeting and reports	2021 - 2025
	Active Consultative Council for Sea Fisheries that formulates advice for fisheries policy	Number of meetings and reports	2021 - 2025

5. Licensing and Vessel Registration

5.1 Licensing policy

It is prohibited to fish in the inland waters of Suriname as well as in the fishing zone (EEZ), unless a Surinamese fishing license can be submitted for this. In accordance with Article 17, paragraph 1 of the Sea Fisheries Act, the Minister of LVV must publish the license conditions and the maximum number of licenses to be issued before 20 January each year. Various ministers have been responsible for licensing policy in recent years, with the result that no unambiguous and consistent policy has been pursued in this regard. For many fish categories, therefore, more fishing licenses have been granted in recent years than stated in the VMP 2014-2018 or in the License Conditions Decisions.

NUMBER OF REGISTERED FISHING FLEET 2000 – 2020																						
Period	2010		2011		2012		2013		2014		2015		2016		2017 [5]		2018		2019		2020	
	Iss.	Dec.	Iss.	Dec.	Iss.	Dec.	Iss.	Dec.	Iss.	Dec.	Iss.	Dec.	Iss.	Dec.								
Shrimptrawlers1	25	31	26	31	25	30	23	35	13	35	20	35	22	35	22		24	35	18	35	12	35
Shrimptrawlers1						4		4		4		4		4				4		4	3	4
Seabobtrawlers	20	20	19	20	22	22	22	22	22	22	22	22	26				26	26	26	26	26	26
Fishtrawlers	9	25	21	25	23	23	23	23	19	23	25	26	23	29			44	35	35	47	45	47
Tuna line (large pelagic)	9	30	8	30	16	60	32	60	30	60	30	60	30	30			42	60	29	60	40	60
Purseine (bait) [2]	0	0	0	0	0		0	2	0	2	0	2	0	2			0	2				
Jigging [2]																		3				
Snapper and Mackerelliners [3]	65	100	40	100	49	100	66	100	42	130	5	130	124	180	168		193	180	72	224	0	224
Total Industrial fleet	**139**		**114**		**135**		**166**		**126**		**102**		**221**		**278**		**329**		**180**		**126**	
Decked Guyana boats (inboard)	52	300	52	300	63	300	65	300	64	280	63	340	65	340			0		77	380	75	468	74	468
Open Guyana boats (outboard)	210		190		262		295		275		293		275		0		358		330		324	
SK Line4	13		15				5		5		5		2		0		3		3		4	
SK Njawari4	19		18		17		15		14	20	14	20	15	20	0				8	15	6	10	9	10
SK Bangamary	37	30	43	25	41	20	42	40	42	40	43	40	38	40	0				50	80	48	55	42	55
SK Coronie																				10		10
Total coastal fleet	**331**		**318**		**383**		**422**		**400**		**418**		**395**		**0**		**496**		**462**		**454**	
Chinese his (BV) (Fuiknet)	252		340		260		291		333		184		206		0		292		272		255	
Longline (BV) (Line)	13		15		4		3		4		7		9		0		5		8		8	
Drifting gillnet (BV) (Drifting net)	119		65		72		52		68		81		59		0		72		76		54	
Sports (BV) (Sports)	186		362		230		241		265		271		187		52		88		66		66	
Fixed gillnet (BV) (Spannet)	9		14		10		16		10		7		8		0		5		12		10	
Dragnet (BV) (Dragnet)	0		0		0		0		0		0		2		0		31		25		23	
Riverseine (BV) (Signed)	12		20		15		2		15		7		2		0		9		14		11	
Lagoon gillnet (Kieuwnet)	72		86		69		25		67		65		63		0		42		61		49	
Total inland and estuarine fleet	**663**		**902**		**660**		**630**		**762**		**622**		**536**		**52**		**544**		**534**		**476**	
Total fleet	**1133**		**1334**		**1178**		**1218**		**1288**		**1142**		**1152**		**330**		**1369**		**1176**		**1056**	

Table 2. Number of licenses per category 2010 – 2020. Iss. (issued) = number of licenses issued; Dec. (decree) = number of permits allowed according to the permit conditions decision. 1 From 2012 division Peneus and deep sea shrimp, before 2012 everything was just shrimp; 2 Purse seine and jigging no longer exists as a category; 3 No Venezuelan Red Snapper applications were submitted in the year 2015; 4 SK Njawarie and SK Lijn is included in OG if not stated separately; 5 In 2017, the then Minister decided not to issue any licenses except for Sport and marine licenses (Source: Fishe

Consultation and analysis

During the consultations, concerns were raised by the participants, in particular with regard to the number of licenses issued for the SK driftnet fishery, the fish trawl fishery and the Red snapper fishery. It has been argued that the increase in the number of licenses has led to a decrease in catches and fewer larger fish being caught.

The development described has also led to the conclusion within the Fisheries Directorate that a review of the licensing policy is necessary. A further increase in the number of licenses is undesirable for a number of fishing categories. A reduction in the number of permits will also be necessary for a number of categories. The licensing system must be set up in such a way that an undesirable increase in the number of licenses is no longer possible.

Insofar as a reduction of the fishing effort is deemed necessary for certain fishing categories, specific measures will have to be taken to reduce the number of licenses or the fishing pressure. In addition to the reduction in the number of permits, one could consider imposing restrictions on the number of days at sea, the net length or an increase in the minimum mesh size.

Goal	Strategy and actions	Indicator	Timeline
Matching fishing effort to the status of exploited stocks	Establishment of provisional limits for the number of licenses per fishing category	Provisional limits set in Fisheries License conditions Decision 2021	2021
	Setting targets for the number of licenses and capacity, in accordance with the status of the exploited stocks, or using the precautionary principle, to ensure environmentally sustainable fisheries	Targets set for all fisheries categories	31-12-2021
	Assignment of a fixed document number to all issued permits.	Document numbers added to permit file	2021
	No new licenses (document numbers) will be issued for fishing categories for which the set maximum number of licenses has been reached	There is no exceeding of the established maximum number of document numbers	2021
	Development of reduction plans to achieve the target values for the number of permits	Reduction plans drawn up	31-12-2021
	Implementation of the reduction plans drawn up	Fishing effort is decreasing in accordance with reduction plans	2022 - 2025
	Prevent multiple boats from using the same permit by, for example, making permits difficult to duplicate	Number of boats using a duplicate license is decreasing	2021 - 2025

Transparency and accountability of the process of licensing	Establishing the conditions and procedures related to the issuance, transfer and revocation of licenses and consistent compliance with them.	Conditions and procedures drawn up	31-12-2021
	Publication of the list of issued permits and document numbers, including a substantiation of any deviations from this VMP	List published with quarterly update	31-03-2021

5.2 Registration of fishing vessels and licensing

As described in section 4.2, the registration of fishing vessels is laid down in the Sea Fisheries Act. The Central Fisheries Register is maintained by the Harbor Master or the Maritime Authority Suriname (MAS). The MAS will only register a fishing vessel if it receives a letter from the Directorate of Fisheries to do so. This means that the MAS will not issue a registration number to a vessel that will not receive a fishing license from the Fisheries Directorate.

The registration number must be clearly chiseled, scored or welded on each side of the bow on each vessel. In addition to an original fishing license, each fishing vessel must carry a Registration Certificate from the MAS and a valid Certificate of Goodness (CVD) issued by the MAS. The CVD must be renewed on an annual basis after mandatory inspection of the fishing vessel by the MAS. In addition, for SK vessels, since 2012 every vessel must be provided with a number plate that is affixed to the vessel by the Directorate of Fisheries. The SK number of the vessel is stated on the number plate. The aim of applying these unique number plates is to prevent the same SK number being used by different vessels.

Consultation and analysis

The consultation revealed that there are irregularities in particular with regard to the SK fleet. It happens that different vessels fish under the same SK number. The fishing license associated with the SK number is then copied.

What can also happen is that a vessel is replaced. The formal procedure is then that a new registration document and a new SK number are issued for the replacement vessel and that the registration of the old vessel is canceled.

One aspect related to the vessel registration system is the existing practice of license rental. This is formally prohibited under Article 18 paragraph 2 of the Sea Fisheries Act. In practice it appears that, for invalid reasons, a vessel belonging to another person is presented to the MAS for registration in its own name. In order to demonstrate that one is the owner of the vessel, the ownership of the vessel is then transferred on paper. In addition, a letter of “no objection” from the Fisheries Directorate is submitted.

Goal	Strategy and actions	Indicator	Timeline
Transparency and accountability of the process of registration and	Clarification of the terms, procedures and responsibilities related to	Conditions and procedures	31-12-2021

replacement of fishing vessels	registration and replacement of fishing vessels and consistent compliance.	drafted and complied with	
	All fishing licenses issued in 2020 will be linked to a unique document number that is linked to the relevant fishing category, vessel and license holder. No new document numbers will be issued from 2021 for fisheries categories where the maximum number of permits has been reached.	Document numbers added to permit file	2021

6. Monitoring, Monitoring Control (MCS)

Monitoring, Control and Surveillance (MCS) is essential to ensure compliance with the fisheries management system and permit conditions. In the current situation, it has become clear that compliance with fisheries regulations and licensing conditions is seriously deficient. For example, VMS data shows that ships, both industrial and coastal fleet, do not all adhere to defined fishing zones. In the inshore fleet there is a strong tendency to fish with longer nets and smaller meshes than allowed. There are also problems with duplication of licenses and the illegal transport of fish to Guyana.

Under these circumstances, it is critical that an effective MCS system is implemented that ensures fishermen that there is a level playing field and that regulations and restrictions apply to all fishermen and are effectively monitored. If not, compliance with the rules and regulations is not in the interest of individual fishermen. Without an effective MCS system, the objectives of this VMP cannot be achieved.

Goal	Strategy and actions	Indicator	Timeline
Fighting illegal (IUU) fishing by effective monitoring, control and surveillance (MCS) **Improving licensing compliance.**	Development and implementation of a national MCS strategy.	MCS strategy developed and published	31-03-2021
	Drafting and signing a Memorandum of Understanding (MoU) between authorities involved in fisheries control	MoU drafted and signed	30-09-2021
	Development and adoption of a National Action Plan to Combat Illegal (IUU) Fishing (NPOA-IUU)	NPOA-IUU developed	31-12-2021
	Establishment of a formal cooperation structure between the authorities involved in fisheries control to implement the NPOA-IUU	Collaboration structure set up and active	31-12-2022
	Improving operational capabilities for MCS at sea and on land	Improved available capacity (people, material, resources) for MCS	2021 - 2025
	Intensifying fisheries inspections both at sea and on land	Number of inspections performed at sea/land	2021 - 2025
	Guaranteeing free access to mooring and landing places for inspection and data recording	Free access to all landing sites	2021 - 2025
	Designating landing sites that meet the set conditions	Landing sites designated by LVV	2022

	Improving the quality of fisheries inspections through training of inspectors	Training of inspectors performed	31-12-2021
	Ratification and implementation of the Convention on the Port State Measures (PSMA)	PSMA ratified	31-12-2022
	Implementation of the measures in the Regional Action Plan to Combat Illegal (IUU) Fishing	Measures implemented	31-12-2022
	Establish and maintain a list of vessels confirmed to have engaged in IUU fishing. Share data in the region.	List drawn up and data shared	31-12-2021
	Installation of VMS on all vessels in the industrial and coastal fishing fleet (i.e. all vessels except BV)	VMS installed on all vessels except BV	30-6-2021
	Checking the landing obligation by means of VMS data	Monthly check of VMS data.	2021 - 2025

7. Reducing Effects on the Ecosystem

The ecosystem approach to fisheries management aims to maximize the benefits of living natural marine resources while minimizing the impact of their use on the marine environment.
Fisheries policy must be aimed at sustainable use of fish stocks and their ecosystem. Ecological sustainability is a basic condition for an economically and socially responsible future of fishing. Ecosystem impacts identified for Surinamese fisheries include high bycatch of non-target species, bycatch of endangered or protected (ETP) species and effects of bottom trawls on benthic habitats. Some of these effects have already been addressed, for example turtle bycatch in the seabob and large shrimp fisheries through the Turtle Excluding Devices (TEDs) application. Further progress is planned for the coming years.

Goal	Strategy and actions	Indicator	Timeline
Reduction of impacts on protected species and the marine ecosystem	Promote the use of TEDs in all trawling categories to prevent bycatch of sea turtles and other vulnerable species (eg sharks and rays).	Increase in use TEDs; reduction of bycatch of vulnerable species	2021 - 2025
	Promoting the use of net adjustments (FRGs) to reduce unwanted by-catches	Increase in use of FRGs; reduction of unwanted by-catches	2021 - 2025
	Ban on landing of swim bladder without landing of the whole fish	Ban imposed and enforced	31-12-2021
	Evaluation of the effects of bottom gears on benthic habitats	Evaluation done	31-12-2023
	Evaluation of the establishment of protected areas (MPAs), with a view to protecting fish stocks, reducing by-catches, impacts on seabed habitats and protected species (ETP).	Evaluation done	31-12-2023
	Marking of fishing gear in order to hold the responsible party liable for damage caused by loosened, lost or dumped fishing gear, and its control at the time of inspection by the Directorate of Fisheries and other control authorities	Full implementation of fishing gear marking requirement	31-12-2022
	Introducing a reporting obligation for fishermen at the MAS for loose or lost gear	Notification obligation complied with	2021-2025

8. Regional cooperation

Surinamese waters border the EEZs of neighboring countries and international waters. Several of the most important commercial fish stocks extend between Surinamese waters and adjacent waters. To manage shared files, sustainable regional cooperation is necessary. There are also plenty of foreign vessels fishing in Surinamese waters, such as the Venezuelan red snapper fleet. As a non-contracting party of ICCAT, Suriname provides fishing licenses to fish for tuna and tuna-like species. To combat IUU fishing in the region, cooperation on MCS is also necessary.

Goal	Strategy and actions	Indicator	Timeline
Enhanced Regional Cooperation on Transboundary Contributions to Fish **Resources** Deployment	Contribute to the development of joint stock management for shared fish stocks	Contribution made to regional actions/initiatives	2021 - 2025
	Coordination of fishing effort measures such as time (seasonal), depth zones and technical measures to promote policy consistency in the region	Contribution made to regional actions/initiatives	2021 - 2025
	from the Regional Strategy to Bycatch Management ('Regional strategy on bycatch management')	Contribution made to regional actions/initiatives	2021 - 2025
	Participation in and contributions to the scientific and advisory tasks of the regional shrimp and groundfish working group regarding sub-regional stock estimates, management plans and HCRs.	Active participation in the 'shrimp and groundfish working group'	2021 - 2025
Improved regional cooperation on fisheries control **(MCS)**	Contribute to the development of a formal partnership between relevant organizations to fight illegal (IUU) fishing in the region. (Using the Memorandum of Understanding on Port State Control in the Caribbean Region (CMoU) as a model.)	Contribution made to regional actions/initiatives	2021 - 2025
	Contribute to the development of the WECAFC 'Regional Record of Fishing Vessels', taking care of that	Contribution made to Regional Record of Fishing Vessels	2021 - 2025

	for compatibility with the 'FAO Global Record'.		
	Provide fisheries data and information on the priority species - as delineated in the ad interim DCRF - and for the related stocks and fisheries, to populate and update the WECAFC regional database.	Data supplied for regional database	2021 - 2025
	Contribute to the development of a regional policy with regard to registration, licensing and chartering of fishing vessels and with regard to transhipment of fish in line with the Caribbean Community Common Fisheries Policy and the WECAFC [Draft] Recommendations.	Contribution made to regional actions/initiatives	2021 - 2025
	Contributions to the FAO web portals for the Global Record and the Agreement on Port State Measures.	Contribution submitted	2021 - 2025

9. Data collection and research

The Statistics and Research Division of the Fisheries Directorate is responsible for recording and recording landings and fishing effort, conducting observer trips on board fishing vessels and conducting fisheries research. For all fishing vessels, all catches must be delivered to a landing site within Suriname designated by the Directorate of Fisheries. Catch data is collected at these landing sites by the data recorders. For industrial fisheries, the landing dates must be entered on a logbook form drawn up by the Fisheries Directorate.

The observer trips are carried out by employees of the department. With support from the FAO (and funding from the REBYCII LAC project and a collaboration with the Inter-American Development Bank), work is currently underway to modernize the fisheries data collection system. A system developed by the FAO (called CALIPSEO) will be implemented, which should facilitate data collection and reporting in a more efficient and accurate manner. In the run-up to this, a national survey is being conducted to map out all fishing landing sites. Furthermore, the Statistics and Research department has been employing a number of new people since the end of 2019, including data recorders, seagoing observers and office staff. The implementation of the new data collection system should lead to the collection of the detailed information needed to perform file estimates. This includes training those collecting data in the field and reviving the seagoing observer program. Historical data must also be validated as well as possible and entered into the new system. To support an accurate data collection, with funding from the REBYCII LAC project, an identification guide has been drawn up for the main species that occur in the Surinamese fishery.

Finally, it is the intention to coordinate fisheries data collection and research as closely as possible with monitoring programs for national indicators (in the context of, among others, the NBSAP), as well as reporting for international organizations (eg FAO, ICCAT).

Goal	Strategy and actions	Indicator	Timeline
Improved data collection	Implementation of the data collection system CALIPSEO	CALIPSEO system operational	30-06-2021
	Collect catch and bycatch data (including discards and ETP species) per fish species for all fisheries categories for stock estimation.	Available data	2021-2025
	Collection of landing and fishing effort data and per fishery category for stock estimates	Available data	2021-2025
	Reintroducing the onboard observer program and other methods of collecting catch data (last haul data, CCTV, etc.)	Number of observers travel performed	31-12-2021

	Improving species-level data collection (catch and bycatch) through industrial vessel logbooks	Log data available for industrial fleet	31-12-2021
	Improving data collection at species level (catch and bycatch) through logbooks on artisanal vessels	Log data available for artisan fleet	31-12-2022
	Tailor fisheries data collection and research to indicators and data needs of national and international bodies/organizations (e.g. FAO reporting, CBD indicators,...)	Data available for (inter)national bodies	2021 - 2025
File estimate execution	Increasing capacity and competences for file estimates	Amount qualified staff employees	31-12-2021
	Performance of stock estimates and establishment of reference points for stock management	Number of File Estimates Performed	2022 - 2025

10. Policy by fishing category

10.1 Large pelagic line fishery (eg for tuna)

Suriname has a fishing zone (EEZ) of 200 nautical miles. This zone contains highly migratory species that migrate over great distances through the oceans. These include tuna species such as Yellowfin tuna *(Thunnus albacares),* White tuna3 *(Thunnus alalunga),* Mahi mahi4 *(Coryphaena hippurus),* Wahoo *(Acanthocybium solandri),* as well as some shark species.

Figure 4. Tuna, Mahi-mahi and Wahoo during the landing at the CEVIHAS NV jetty

There are currently no Surinamese flag fishing vessels fishing for tuna and tuna-like species. Current practice is that vessels flying a foreign flag are issued with licenses to fish for tuna and tuna-like fish in Surinamese waters. Insofar as these vessels also fish in international waters, they may also land these catches in Suriname if they have a valid license from their flag state. In recent years, for example, licenses have been granted to vessels operating under the Panamanian flag. In addition, licenses were issued in 2018 to fishing vessels sailing under the flag of Belize and St. Vincent & Grenadines for Surinamese waters. Letters of permission were also issued a number of times to fishing vessels sailing under the flag of Belize or St. Vincent & Grenadines with valid documents, to be allowed to unload their catch from international waters in Suriname.

The reporting obligation to ICCAT lies primarily with the flag state. Suriname also acts as a port state and, in addition to its normal reporting obligations (such as sending an annual report), must also comply with port state obligations such as, among other things, the control and registration of landings and the designation of a “designated port” where foreign fishing vessels may land.
Under these port state obligations, Suriname is obliged to inspect 5% of the total number of landings of foreign fishing vessels that unload their catch in Suriname.

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3 Albacore

4 Dolphinfish

However, it turned out that Surinamese inspectors are currently not well able to inspect foreign tuna vessels (in terms of expertise). Therefore, Suriname asked ICCAT in 2012 to assist Suriname in training these inspectors in order to comply with this obligation towards ICCAT.

Thorough control of the landings of internationally operating vessels in Suriname is important to ensure that no illegal or unreported fish or protected species are used.
landed. In this context, it is also important that Suriname intends to ratify the Convention on Port State Measures (PSMA, 2016). This UN convention lays down the rules according to which vessels calling at a port must be inspected.

The maximum number of licenses to be granted for the Large Pelagic Line Fishing category has been set at 60 in the License Conditions Decision 2020 at 60. In 2019, Suriname granted 29 vessels a license for the Large Pelagic Line Fishing. These vessels are obliged by virtue of their license to land their catches in Suriname. The catches are landed at the CEHIVAS NV jetty and processed by the company Suvveb nv. A total of 5,299 tons were landed in 2019.

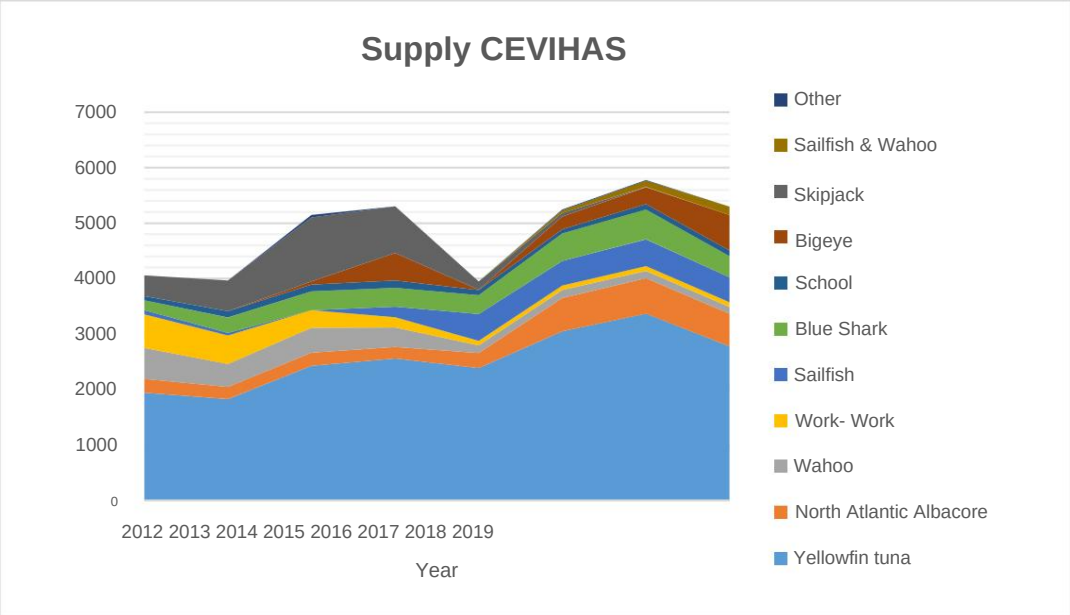

Figure 5. Landing of large pelagic fish at CEVIHAS NV jetty 2012-2019.

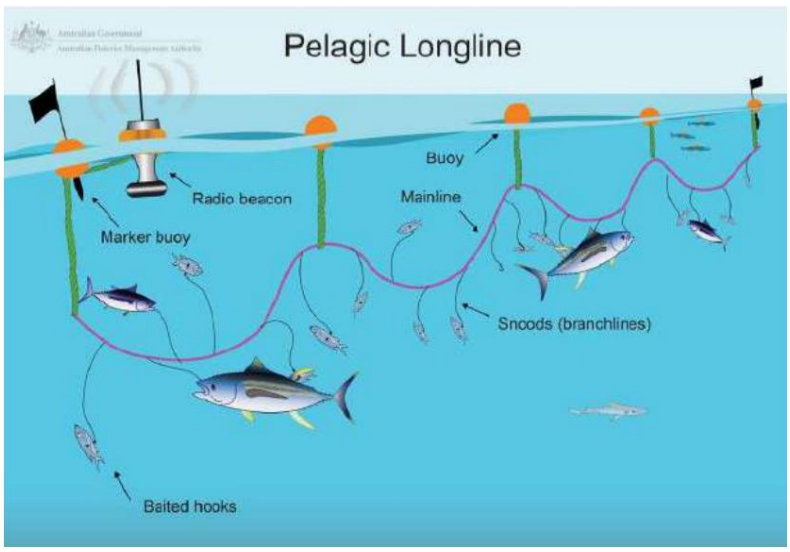

Figure 6. Sketch of the operation of the long-line fishery with horizontal pelagic lines.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (60)	Number of permits issued 2021 - 2025	
	Maximum vessel length: 32 m	Length of vessels	2021 - 2025
	Maximum engine power: 1000 hp.	Engine power of the vessels	2021 - 2025
	Maximum number of hooks: 2000 on horizontal longlines	Number of hooks used	2021 - 2025
	Minimum hook size: No. 5/0.	Hook size used	2021 - 2025
	Maximum allowable catch per species, per vessel in accordance with ICCAT guidelines	Catch quantities per species, per vessel	2021 - 2025
Limit of fishing areas	From 35 fathom depth	Number of violations based on VMS data	2021 - 2025
Combating illegal fishing (IUU)	Improving inspection at sea and landing control	Number of catch and landing inspections performed	2021 - 2025
Improved data collection	Mandatory registration of all fish landed by species level; reporting of catch and bycatch through logbook that meets at least ICCAT guidelines	Availability of log data	31-12-2021
	Improved capacity of data recorders in the recognition of large pelagic fish species at landing	Recording data available at species level	31-12-2022
Reduction of impacts on protected species (dolphins, sharks, birds)	Mapping of by-catches through observers and/or CCTV	Availability of observer data/camera images	31-12-2022
Strengthening regional cooperation	Evaluation of licensing to third countries.	Evaluation done	31-12-2021
	Evaluation of the possibilities for Suriname to become a 'Contracting Party' of ICCAT.	Evaluation done	31-12-2021

10.2 Line fishing for snapper and mackerel

In addition to line fishing for tuna and large pelagic fish, there is also longline and handline fishing in the Surinamese fishing zone for smaller species such as snappers and mackerel. Target species of this type of fishery include Red snapper *(Lutjanus purpureus),* Lane snapper *(Lutjanus synagris),* Dog snapper *(Lutjanus jocu),* Vermillion snapper *(Rhomboplites aurorubens),* King mackerel *(Scomberomorus cavalla)* and Wahoo *(Acanthocybium solandri).*

The snapper and mackerel fishery in the Surinamese EEZ has traditionally been conducted by fishing vessels from Venezuela. With the establishment of an EEZ by Suriname in 1982, the waters where snapper fished by Venezuelan vessels came under Surinamese jurisdiction. In order to regulate this fishery, a treaty was signed with Venezuela in 1986. On the basis of this treaty, a fishing license was granted to Venezuelan vessels that have concluded a contract with a Surinamese processing company.

Until 2019, different licenses were granted for fishing for red snapper on the one hand and mackerel on the other. In 2019 it was decided to combine the above fish categories and to grant one license for this for Red Snapper and Mackerel.

The maximum licenses to be issued for the line fishing category for catching Red Snapper and Mackerel has been set at 224 in the License Conditions Decision 2020 at 224. In 2019, 72 vessels were granted a license for these types of fishing.

Consultation and Analysis

During the consultations, it emerged that not all Venezuelan vessels fishing in Surinamese waters report or land their catches in Suriname. In addition, it was indicated that certain vessels are fishing for snappers with traps, even though no permit has been issued for this.

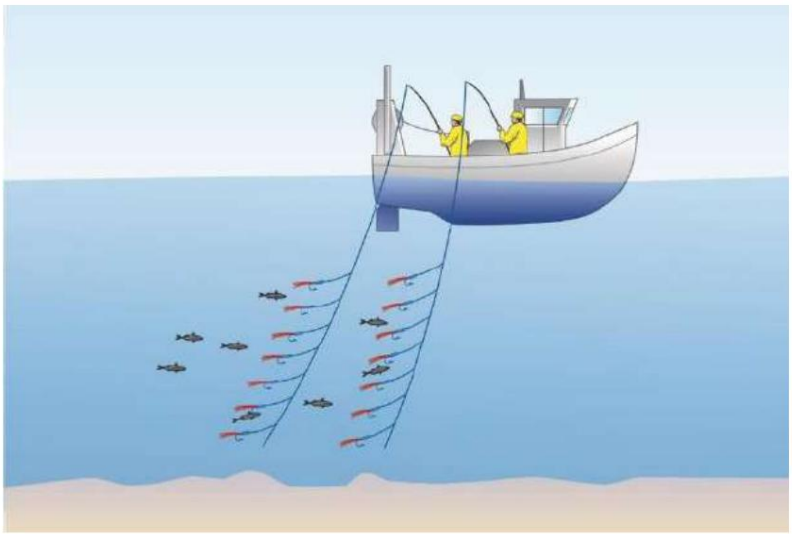

Figure 7. Schematic of fishing with vertical handlines

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (224)	Number of licenses issued	2021 - 2025
	Maximum vessel length: 30 m	Length of vessels	2021 - 2025
	Maximum engine power: 400 hp	Engine power of the vessels	2021 - 2025
	Maximum number of vertical hand lines: 14	Number of vertical hand lines used	2021 - 2025
	Maximum number of horizontal lines: 1	Number of horizontal lines used	2021 - 2025
	Maximum number of hooks: 2000 on horizontal longlines, 20 on vertical handlines.	Number of hooks used	2021 - 2025
	Minimum hook size: No. 3/0.	Hook size used	2021 - 2025
	Determination of a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set	31-12-2021
	Fishing with fishing methods other than lines (especially cages and driftnets) is prohibited	Number of violations of the use of prohibited fishing methods	2021 - 2025
Limit of fishing areas	From 18 fathoms depth in Surinamese waters	Number of violations based on SMS data	2021 - 2025
	Evaluation for the establishment of a specific fishing zone and establishment of a fishing zone if necessary	Evaluation performed (and zone set)	31-12-2022
Combating illegal fishing (IUU)	Improving maritime inspection and landing control	Number of catch and landing inspections performed	2021 - 2025
Strengthening regional cooperation	Evaluation of the Treaty with Venezuela	Evaluation done	31-12-2021
	Regional consultation (with Venezuela) regarding the maximum number of fishing licenses based on (historical) reference values for the sustainable exploitation of red snapper and mackerel stocks	Consultation carried out. Fixed maximum number of permits	31-12-2021

	Foreign (Venezuelan) vessels are caught fishing without a license waters are (as suggested by the IUU rules) on a blacklist	Blacklisted who in Surinamese	2021 - 2025

Figure 1. Red snapper *(Lutjanus purpureus)* and Vermillion snapper *(Rhomboplites aurorubens).*

10.3 Shrimp bottom trawling fishery

10.3.1 Bottom trawling fisheries for deep-sea and large sea shrimp

The deep-sea shrimp fishery focuses on deep-water shrimp. The main species are Orange shrimp *(Solenocera acuminata),* Scarlet shrimp *(Pleisopenaeus edwardsianus)* and Royal red shrimp *(Pleotiocus robustus).* This fishery started in Surinamese waters in 1999 and was practiced by Korean and Japanese vessels. Because catches fell sharply and the fishery was no longer profitable, this fishery by Korean and Japanese vessels has been discontinued. According to the 2020 Decree, the maximum number of licenses that will be granted for this fishery is 4 licenses. Three vessels are currently active.

Goal	Strategy and	Indicator	Timeline
Fishing capacity limitation	**actions** No additional permits will be issued compared to the number in 2020 (4)	Number of permits issued 2021 - 2025	
	Maximum engine power: 500 hp	Engine power of the vessels	2021 - 2025
	Maximum vessel length: 28 m	Length of vessels	2021 - 2025
Limit of fishing areas	From 200 fathoms depth in Surinamese waters	Number of violations based on VMS data	2021 - 2025
Reduction of by-catches	Minimum mesh size of the bag: 45 mm	Mesh Size Used	2021 - 2025
	Mapping of by-catches and discards through observers and/or CCTV	Data on bycatch and discards available	31-12-2022
	Introduction of suitable 'Bycatch Reduction Currencies (BRD)'	Use of FRG according to LVV guidelines	01-01-2023
sustainable exploitation of shrimp stocks n.	Determination of reference values (eg. CPUE) for sustainable exploitation of deep-sea shrimp stocks	Established reference values 31-12-2023	
	Regulating the number of vessels and fishing effort in order to maintain shrimp stocks above formulated reference values . If the file is below the reference level	Target values for the number licenses and fishing effort established (based on reference values)	31-12-2023
	the number of days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Adjustment of the number of days at sea	31-12-2023
	Determination of a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set 31-12-2021	
Protection of habitats and ecosystems.	Improving the selectivity and limitation of fishing activities in sensitive areas.	Mapped fishing areas and risk assessment on soil impact performed	31-12-2023

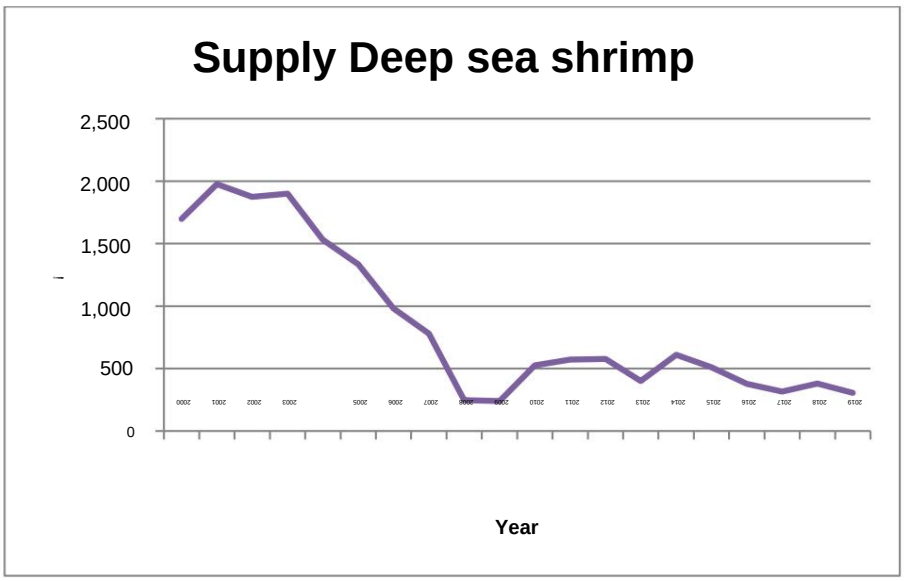

Figure 9. Deep-sea shrimp landings 2000-2019 (Source: Fisheries Directorate)

The shrimp fishery for large sea shrimp is the first industrial sea fishery that has developed in Suriname. The fishery focuses on the species Brown shrimp *(Penaeus subtilis),* Hopper *(Penaeus brasiliensis),* Pink shrimp *(Penaeus notialis)* and White shrimp *(Penaeus schmitti).* From humble beginnings in the 1960s, this fishery developed more and more in the 1970s and 1980s. Fleet size and catches stabilized in the 1980s and 1990s. However, there has been a sharp decline since 1996. This decline in the supply of large sea shrimp is undoubtedly caused by overfishing (FAO, 2000) . As a result of the fall in catches, the number of vessels active in this fishery has also fallen sharply (see Figure 10).

The maximum licenses to be issued for the category Bottom trawling fishery for large sea shrimps has been set at 35 in the License Conditions Decision 2020 at 35. In 2019, 17 licenses were granted in this category.

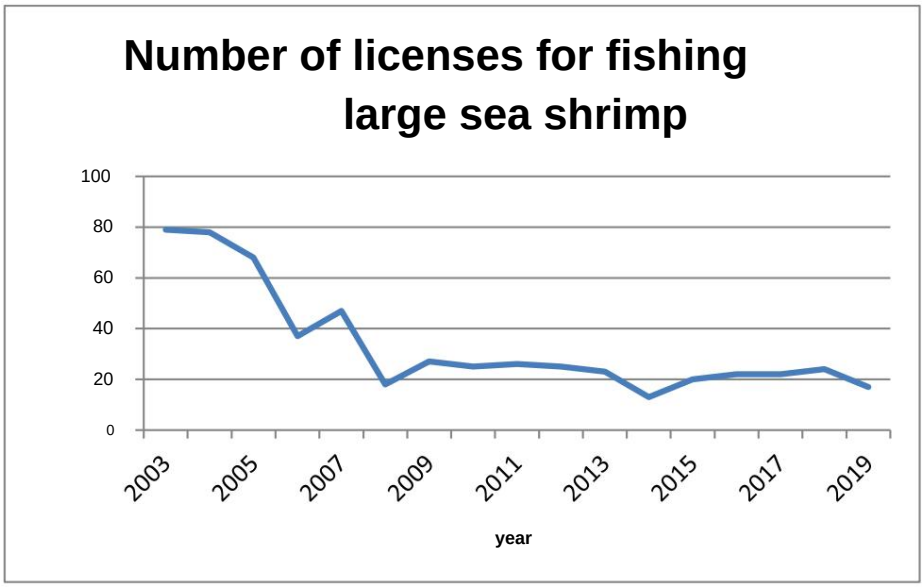

Figure 10. Number of licenses for large sea shrimp fisheries 2003-2019. (Source: Fisheries Directorate)

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (35)	Number of granted permits	2021 - 2025
	Maximum engine power: 500 hp	Engine power of the vessels	2021 - 2025
	Maximum vessel length: 28 m	Length of vessels	2021 - 2025
Limit of fishing areas	From a depth of 18 fathoms in Surinamese waters	Number of violations based on VMS data	2021 - 2025
Reduction of by-catches	Minimum mesh size of the bag: 45 mm.	Mesh Size Used	2021 - 2025
	Mapping of by-catches and discards through observers and/or CCTV	Data on bycatch and discards available	31-12-2022
	Introduction of appropriate bycatch reduction guidelines (BRD)	Use of FRG according to LVV guidelines	01-01-2023
Sustainable exploitation	Determination of reference values (e.g. CPUE) for sustainable exploitation of Penaeus shrimp stocks	Established reference values	31-12-2022
	Regulation of the number of vessels and the **of** fishing effort in order to preserve shrimp stocks shrimp stocks : above formulated reference values. If the file is below the reference level, the number	Target values for the number of licenses and fishing effort established (based on reference values).	31-12-2022

	days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Adjustment of the number of days at sea	31-12-2022
	Determination of a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set	31-12-2021
	In order to reduce the number of active vessels, it will be possible to transfer days at sea.	Developed system for transfer at sea	31-12-2021
Reducing Impacts on Endangered or Protected Species (ETP)	Enforcement of the use of TEDs as well as evaluation of alternative TEDs (eg TTEDs).	Consistent use of TEDs; NOAA TED Certification Maintained to Ensure US Exports	2021 - 2025
Protection of habitats and ecosystems	Improving the selectivity and limitation of fishing activities in sensitive areas.	Fishing areas mapped and risk assessment on soil impact performed	31-12-2023

10.3.2 Seabob Bottom trawling fishery

The fishery for seabob shrimp *(Xiphopenaeus kroyeri)* with industrial fishing vessels started in Suriname in 1996. Traditionally, however, seabob shrimp were caught with fyke nets (Chinese seine) in the river mouths.
The seabob is a small shrimp species with a relatively short lifespan and is found in shallow coastal waters on bottoms with a high silt content. The seabob shrimp is found throughout the Caribbean and along the coast of North and South America. The species occurs in brackish water and the life cycle is closely linked to the seasonal supply of freshwater from the rivers.

The industrial seabob fleet fishes with Florida-type twin-rig shrimp cutters. The shrimp are supplied on ice and landed at one of the two Surinamese processing companies (SAIL and Heiploeg Suriname).
Here the shrimps are peeled, sorted and frozen for export to Europe and America.

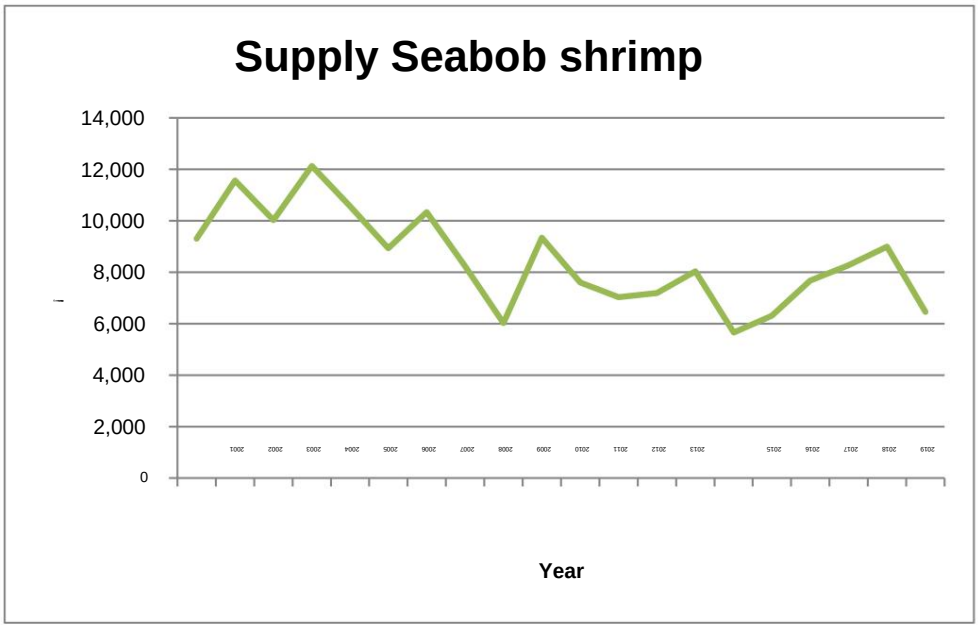

Figure 11. Seabob shrimp landings in the period 2000-2019.

Industrial seabob fishing is permitted year-round between the 10 fathom isobath and a line running in the west to the 15 fathom isobath and from Matapica in the east to the 18 fathom isobath. The maximum number of licenses set for this fishery is 26 licenses.

The fishery for seabob shrimp was certified by the Marine Stewardship Council (MSC) in 2011.
In order to meet the MSC conditions for sustainable fisheries, the “Fisheries management plan for Suriname, Seabob shrimp *(Xiphopenaeus kroyeri)* Fisheries 2010 – 2015” was drawn up in 2010.
The Minister of LVV has also set up a Seabob Working Group that, among other things, monitors compliance with the MSC criteria and conditions. The duration of an MSC certification is 5 years. In January 2017, the fishery was certified again for a period of five years. The so-called Public Certification Report (PCR) states that the certificate is granted under 2 conditions. The so-called 'conditions'. The first condition concerned the harvest control rule (HCR) and the second the external assessment of the management system for this fishery. This last 'condition' has now been closed as the seabob VMP has undergone a review and update in 2019.

With regard to the HCR, it is relevant that the most recent stock estimate (Medley, 2019a&b) has shown that fishing pressure moves around the level of optimal exploitation. However, it is also concluded that the current stock size is less than 40% of the stock in an unfished situation. This implies that fishing has a major impact on the stock and that a reduction in fishing pressure is desirable. After all, a lower fishing pressure will lead to a larger stock and the catches would then certainly not have to be lower in the long term, even with a lower fishing pressure than is currently the case. It is also relevant in this context that the maximum number of permits was set at 22 since 2012, but that in 2017 there was an increase to 26 permits.

In principle, the seabob fishery is managed in accordance with the Seabob Fisheries Management Plan. While key issues are addressed in this national VMP, the Seabob VMP provides more detail on how to manage this fishery.

Figure 12. Seabob Trawlers

Consultation and analysis

During the consultations, it was stated that the seabob fishery is considered partly responsible for the decline in fish stocks. This sector would catch a lot of (undersized) fish while only a very small part of it is landed. Recent research confirms that some of the catch consists of small specimens of commercial fish species.

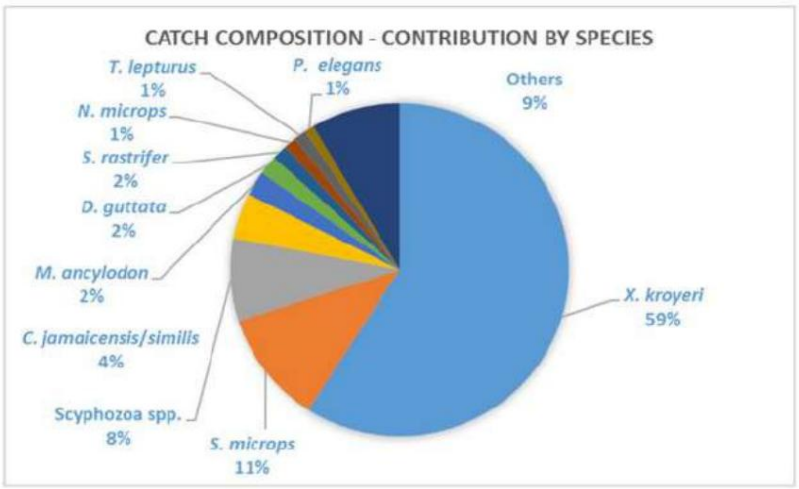

Figure 13. Catch distribution between the target species Seabob *(Xiphopenaeus kroyeri)* and bycatch species. Source: Meeremans et al., 2017

The research (Meeremans et al., 2017) shows that 59 % of the catch is made up by the target species Seabob *(Xiphopenaeus kroyeri) .* The bycatch is formed by fish (32 %), jellyfish (8%) and benthic animals (1 %). About 14% of by-caught fish is landed. This means that approximately 28 % of the total catch consists of fish that are returned to the sea and 4 % of fish that are landed. Fish species such as Stonkoebi[5] *(Stellifer microps),* White witi[6] *(Cynoscion jamaicensis) and* Dagoetifi[7] *(Macrodon ancylodon)* are some of the most common

5 Smalleye stardrum
6 Jamaica weakfish
7 King weakfish

bycatch species. The larger specimens of the latter two species are landed. Figure 47 below illustrates the length distribution of the Dagutifi bee caught.

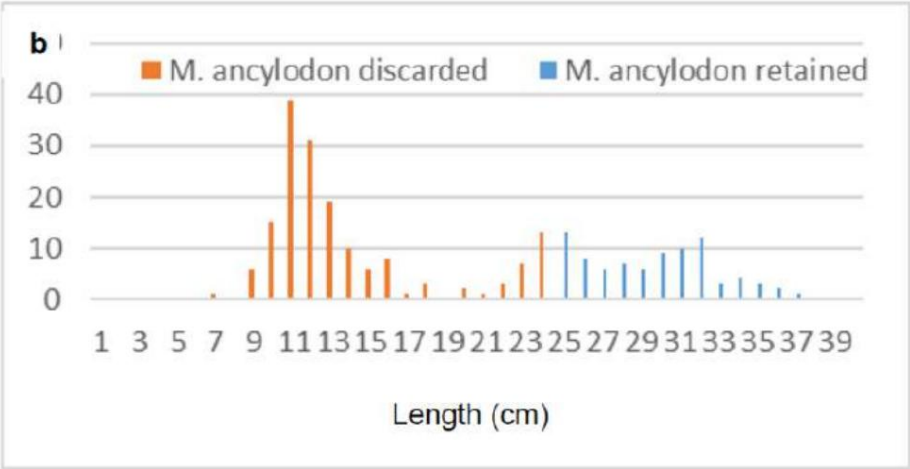

Figure 14. Longitudinal distribution of Daguti in the Seabob fishery. Source: Meeremants et al., 2017

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (26)	Number of licenses issued	2021 - 2025
	Maximum engine power: 500 hp	Engine power of the vessels	2021 - 2025
	Maximum vessel length: 26 m.	Length of vessels	2021 - 2025
Limit of fishing areas	From 10 to 15/18 fathoms depth in Surinamese waters	Number of violations based on VMS data	2021 - 2025
Reduction of by-catches	Minimum mesh size of the bag: 45 mm	Mesh Size Used	2021 - 2025
	Mandatory use of bycatch reduction guidelines (BRD) '	Use of BRD according to LVV guidelines	2021 - 2025
Sustainable exploitation of seabob stock	Maximum days at sea based on file estimate and HCR	Number of days at sea	2021 - 2025
Reduction of impacts on endangered or protected species (ETP).	Enforcement of the use of TEDs as well as evaluation of alternative TEDs (eg TTEDs).	Consistent use of TEDs; NOAA TED Certification Maintained to Ensure US Exports	2021 - 2025

10.4 Bottom trawling for demersal fish species

Trawler fisheries targeting demersal fish species started in Suriname in the 1990s. Initially, it only concerned a number of former Dutch cutters. At a later stage, a number of vessels of a different origin were also added. At the time of drafting the VMP 2014-2018, it was determined that no more than 23 permits would be issued. Despite this policy intention, however, the number of licenses has increased to 37 licenses in 2019. The License Conditions Decree 2020 stipulates that the maximum number of licenses for trawling has been set at 47 licenses.

The fish trawl fishery is carried out with the otter trawl, a bottom trawl net that is kept open with skewers. The vessels are either stern trawlers or outrigger trawlers fishing from the booms. Table 7 shows the main target species of the fishery. The main target species are Kandratiki *(Cynoscion virescens),* Crocus *(Micropogonias furnieri)* Puss *(Arius grandicassis),* Lane snapper *(Lutjanus synagris)* Black snapper *(Orthopristis ruber),* croackers and grunts. However, the number of species caught is considerably greater. The minimum mesh size of the bag (coding) is 80 mm. Although originally fishing with one net, in recent years vessels that practice twin rig fishing with two nets have also become active.

At the beginning of this fishery, only a few vessels were active and catches were correspondingly good. In the early 1990s, high catches of Lane snapper in particular were achieved. As the number of active vessels has increased, Lane snapper catches have decreased accordingly. During the consultations it emerged that even species that previously had little value have increasingly improved sales opportunities. As a result, more species are now being supplied. Nevertheless, in this form of fishing there is still considerable bycatch that is not landed.

The landings of the fishing trawl fleet increased from 10,289 to 18,099 tons from 2015 to 2019 (see Figure 15). This development reflects on the one hand the increase in the number of permits and on the other hand the supply of more fish species.

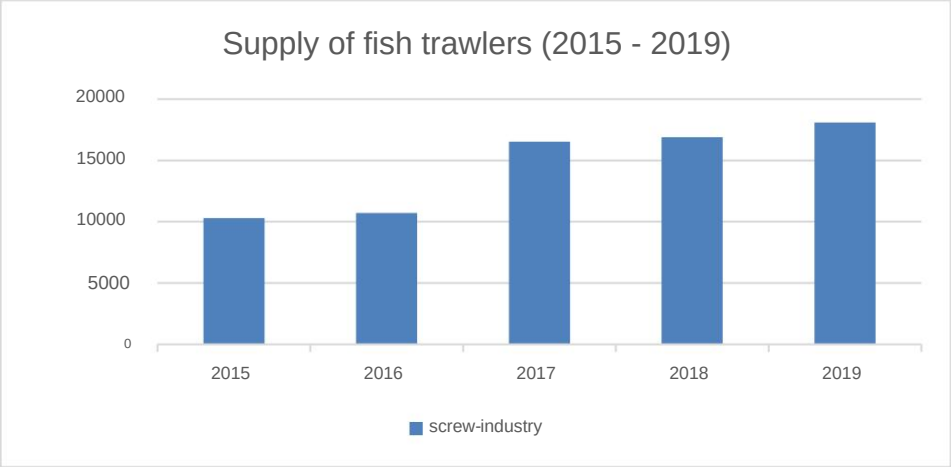

Figure 15. Landing by the fishing trawl fleet 2015-2019

By-catch studies in trawling (Meeremans et al., 2017) have shown that approximately 45 % of the fish caught in fish trawling is not landed. The investigation revealed that 89 different fish species were caught. About half of these species were never landed. In addition, of many species only a limited part of the fish caught was landed. Small fish in particular were thrown overboard again. Figure 16 illustrates this for the caught oarfish *(Trichiurus lepturus).* The figure shows that almost all caught oarfish smaller than 65 cm are not landed.

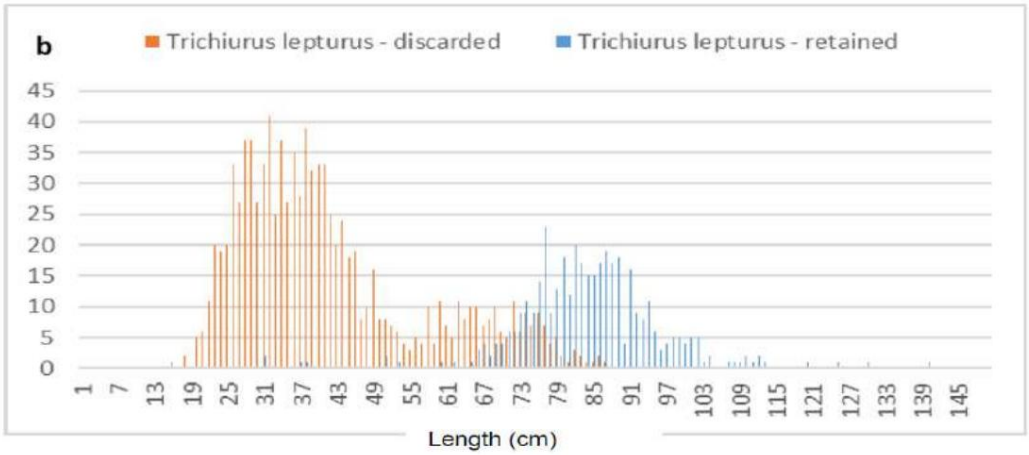

Figure 16. Length distribution of landed and discarded *oarfish (Trichurus lepturus).* Source: Meeremans et al., 2017.

Figure 17. Fishing Trawler

Goal	Strategy and	Indicator	Timeline
Fishing capacity limitation	**actions** No additional permits will be issued compared to the number in 2020 (47)	Number of licenses issued	2021 - 2025
	Maximummotorvermogen: 500 pk	Engine power of the vessels	2021 - 2025
	Maximum total length of bottom tendon (or bottom tendons when using two nets): 50 m; cables (precursors) of max. 70 m	Bottom tendon length (-tendons) and cables	2021 - 2025
	Maximum vessel length: 32 m	Length of vessels	2021 - 2025

Limit of catch areas [n]	From 15 to 35 fathoms depth	Number of violations based on VMS data	2021 - 2025
Reduction of by-catches	Minimum mesh size of the bag: 80 mm; outer bag at least 160 mm	Mesh Size Used	2021 - 2025
	Introduction of appropriate bycatch reduction guidelines (BRD)	Use of FRG according to LVV guidelines	01 – 01 - 2023
	Evaluation of the minimum mesh size	Evaluation done	31 – 12 - 2022
sustainable exploitation of fish stocks	Determination of reference values (eg. CPUE) for sustainable exploitation of commercial fish stocks	Reference values established	31-12-2022
	Regulating the number of vessels and fishing effort in order to maintain commercial fish stocks above formulated reference values. If important stocks are below the reference level, the number of days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Target values for the number licenses and fishing effort established (based on reference values).	31-12-2022
		Adjustment of the number of days at sea	31-12-2022
		Adjustment plan for the number of permits drawn up	31 - 12-2022
	Maximum number of days at sea per vessel: 170 days.	Number of days at sea performed	2021
	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed	31-12-2022
	Promote the landing of all fish caught (excluding protected species and undersized fish)	Discard rates based on observer data	2021 - 2025
	Ban on landing of fish bladder without landing of the whole fish	Regulations set	31-12-2022
Reducing impacts on endangered or protected species (ETP).	Introducing a suitable 'Turtle Excluder Device' (TED)	Use of TED according to LVV guidelines	01-01-2023

Protection of habitats and ecosystems.	Improving the selectivity and limitation of fishing activities in sensitive areas.	Fishing areas mapped and risk assessment on soil impact performed	31-12-2023

10.5 Driftnet fishing SK

The driftnet fishing is carried out with open and closed Guyana boats. Open Guyana boats are approx. 14 - 16 m in length and approx. 2.80 m in width and are powered by outboard motors (maximum 75 hp). Closed Guyana boats are between 14 - 18 m in length, approx. 3.80 m in width and are powered by onboard diesel engines (maximum 155 hp). There is a wheelhouse on the closed Guyana boats. Both the open and closed Guyana boats have insulated ice and fish storage. The capacity of these ice boxes is a maximum of 7 cubic meters for open boats and a maximum of 12 cubic meters for closed boats.

Driftnet fishing is carried out in the open sea with gillnets. These nets are not anchored to the bottom but float with the tide. The nets are weighted at the bottom with a plumb line. Buoys are attached to the top with ropes, the length of the ropes depending on the water depth.
In deeper water, the net does not reach the surface of the water. When fishing closer to the coast in shallower water, the net reaches the surface of the water. The open boats remain at sea for seven to twelve days. The closed boats two to three weeks.

Originally, driftnet fishing was mainly aimed at catching *Bang-bang (Cynoscion acoupa).* Because these were large fish, they fished with a large mesh size of 8 inches. Because the Bang-bang catches have decreased, the catch of other species such as Kandratiki *(Cynoscion virenscens)* and Koepila *(Arius* proops) has become more important. That is why fishing is now often done with smaller mesh sizes than is allowed. According to the License Conditions Decision, a maximum of 30% of the net may have a minimum mesh size of 5 inches. According to the permit conditions, the maximum length of the net is 3000 meters for open Guyana boats and 4000 meters for closed Guyana boats.

Figure 18. Open Guyana Boat

Figuur 19. Bang Bang (Acoupa weakfish), *Cynoscion acoupa*

The driftnet fishery SK may be conducted from the 5 fathoms to the 9 fathoms isobath. However, it has become apparent (including through regular conflicts with the (seabob) trawling fisheries) that this form of fishing is also carried out in deeper water. Now that there is a VMS obligation, exceedances of the 9 fathom isobath will come to light sooner. That is why the representatives of this sector have asked for permission to also fish in deeper water.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits are issued in relation to the number of 2020 (75 (SK - GG) om 330 (SK-OG))	Number of licenses issued	2021-2025
	Maximum net length: closed boats (SK-GG) 4000 m., open boats (SK OG) 3000 m.	Net length	2021-2025
	Maximum engine power: closed boats 155 hp, open boats 75 hp	Engine power of the vessels 2021-2025	
	Maximum boot volume: closed boats 85 m3, open boats 65 m3	Boot volume	2021-2025
	Maximum screw volume storage: closed boats 12 m3, open boats 7 m3	Fish storage volume	2021-2025
	Discontinuation of replacing an open type with a closed boat	The number of closed boats	2021-2025
	Development of conditions with regard to the construction and layout of coastal fishing vessels, taking into account fishing capacity, hygiene, safety and working conditions	Conditions developed with implementation timeline	31 – 12 - 2021
Limit of fishing areas	From 4 to 9 fathoms in depth Surinamese waters	Number of violations based on SMS data	2021-2025
	Demarcation of a closed area in the mouth of the Marowijne River adjacent to the	Closed area in the Marowijne estuary adjacent to the	31-12-2021

	existing no fishing zone for SK driftnet fisheries to protect indigenous subsistence fishermen and protect sea turtles	existing no fishing zone demarcated	
Reduction of by-catches	Minimum mesh size: 8 inches; maximum 30% 5 inch	Mesh Size Used	2021-2025
Sustainable exploitation of fish stocks	Determination of reference values for the sustainable exploitation of the commercial fish stocks.	Established reference values	31 – 12 -2022
	Regulation of number of vessels and net length in order to protect important commercial fish stocks above established reference values preserve.	Number of licenses granted are in accordance with reference values.	2023-2025
	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed	31-12-2022
Reducing impacts on endangered or protected species (ETP) and the environment	Closed area off the coast of Galibi from 1 February to 31 July	Number of violations based on SMS data	2021-2025
	Monitoring the bycatch of sea turtles and other ETP species	Data on bycatch of ETP species available	2022-2025
	Research into possibilities to reduce bycatch of protected species	Mapped out opportunities to reduce bycatch	2023 - 2025
	Marking of fishing gear in order to hold the responsible party liable for damage caused by loosened, lost or dumped fishing gear, and the control thereof during the inspection	Full implementation of fishing gear marking requirement	31-12-2022

	by the Fisheries Directorate and other control authorities		
	Introducing a reporting obligation for fishermen to the MAS in the event of loose or lost fishing gear	Notification obligation complied with	2021-2025
Improved Licensing Compliance	Monitoring compliance with the delivery obligation using VMS data.	Number of violations based on SMS data	2021-2025
	Drafting and publishing all landing places designated landing sites.	Published list of a list of	30-6-2021
	Ensure accessibility of designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30-6-2021
	Evaluation of the possibilities to give the SK driftnet fishery access to waters deeper than 10 fathoms.	Evaluation done	31-12-2022
Improving working conditions	Establish a transparent system to facilitate the legal employment of workers from Guyana. In collaboration with the Ministries JUSPOL and Labor.	System active	31-12-2022

In the past, trap fishermen complained a lot about driftnet fishing in the estuaries near the trap set-ups. This resulted in competition with regard to the fish present and damage to the trap set-ups.
For this reason, areas in the mouths of the Nickerie, Suriname, Coppename and Corantijn rivers are now closed to SK driftnet fishing. These areas are specified with coordinates in Annex IV of the License Conditions Decision. The turtle area off the coast of Galibi is also described in this Annex IV. This area is closed to SK driftnet fishing from March 1 to July 31.

The number of licenses issued in 2019 for the SK driftnet fishing with open and closed Guyana boats is 408 licenses. The number of permits issued increased significantly in 2018.

Because the actual number of licenses issued for driftnet fishing exceeded the maximum number of licenses laid down in the License Conditions Decision, the maximum number of licenses for driftnet and line fishing has been increased in the License Conditions Decision 2020 to 468 licenses.

SK-Coronie

As already described in the VMP 2014-2018, there was a situation in the Coronie district in which fishing was done in the coastal area with slightly large boats with a BV number. After all, there is no river (estuary) in Coronie where BV fishing can be practiced. Because in this case there was in fact SK fishing under the flag of BV fishing, it was decided that the vessels concerned should apply for an SK number. With effect from 2020, a new SK fishing category, namely Dijfnetvisserij Coronie, has been created for this purpose. The maximum number of licenses in this category has been set at 10 in the License Conditions Decision 2020.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (10)	Number of permits issued 2021-2025	
	Maximum net length: 1000 m	Net length	2021-2025
	Maximum engine power: 40 hp	Engine power of the vessels	2021-2025
	Maximum boat volume: 30 m3	Boot volume	2021-2025
	Maximum volume of fish storage: 3 m3	Volume fish storage	2021-2025
Limit of fishing areas	Off the coast of Coronie to a depth of 9 fathoms	Number of violations based on VMS data	2021-2025
Reduction of by-catches	Minimum mesh size: 5 inches	Mesh Size Used	2021-2025
sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values 31-12-2022	
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of granted permits are in accordance with the reference values	31-12-2022

10.6 Line fishing SK

In line fishing, fishing is done with a longline to which hooks are attached with sidelines. The hooks are baited after which the line is set out and anchored. The longline is mainly used to catch smooth fish. It concerns a small number of boats that fish with this method.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	Number of hooks maximum 2000	Number of hooks	2021-2025
	Hook size minimum No. 6	Hook size	2021-2025
	Maximum engine power: 75 hp (OG) Engine power		2022-2025
	Maximum boat volume: 65 m3 (OG)	Boot volume	2022-2025
	Maximum volume of fish storage: 7 m3 (AND)	Volume fish storage	2022-2025
Limit of fishing areas	Between a depth of 4 and 10 fathoms Number of violations based on of VMS data		2021-2025
Sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values 31-12-2022	
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of granted permits are in accordance with the reference values	31-12-2022
	Evaluation of impact and potential of this type of fishery	Evaluation done	30-06-2022
Improved Licensing Compliance	Monitoring compliance with the delivery obligation using VMS data.	Number of violations based on VMS data	2021-2025
	Prepare and publish a list of all designated landing sites	Published list	30-6-2021
	Ensure accessibility of designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30-6-2021

10.7 Driftnet Fishing Bangamary (SKB)

Since 2001, a new form of driftnet fishing has been introduced. In that year, 3 licenses for the Bangamary fishery were issued. This fishery is directed or the catch of Bangamary (Daguetifi) and Butterfish. Because this fishery is a small fish species, a minimum mesh size of 3 inches is allowed for this type of driftnet fishery. The maximum permitted net length according to the permit conditions is currently 2000 meters. Fishing is allowed between the 3 and 5 fathoms of isobath (see table 8.) The VMP 2014-2018 stipulated that the number of licenses for this form of fishing would be reduced to 20 in 2015. However, this policy intention was not followed up. . The number of permits even increased to 50 permits in 2018. In the Permit Conditions Decision, the maximum permits to be issued is set at 55 permits. In 2019 49 permits were issued.

Consultation and analysis

During the consultations, it was pointed out that in the Bangamary fishery many undersized fish of other species are by-catch and discarded as the target species. This is due to the small mesh size (3 inches) used in this fishery and the fact that this fishery is close to the coast.

It has already been recognized in the policy that Bangamary fishing is harmful to fish stocks and that a reduction in the number of permits is desirable. During the consultations it was also stated that many fishermen use nets that are too long and sometimes too small a mesh size. Also, the size of the boats is sometimes larger than allowed and fishing is done in closed zones.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (55)	The number of granted permits	2021-2025
	Maximum net length: 2000 m.	Net length	2021-2025
	Maximum engine power: 55 hp.	Engine power of the vessels	2021-2025
	Maximum boat volume: 40 m3.	Boot volume	2021-2025
	Maximum volume of fish storage: 5 m3.	Volume fish storage	2021-2025
Limit of fishing areas	From 3 fathom depth to 5 fathom depth.	Number of violations based on VMS data	2021-2025
Reduction of by-catches	Minimum mesh size: 3 inches.	Mesh Size Used	2021-2025
sustainable exploitation of **fishery resources**	Determination of reference **values** for commercial fish stocks.	Established reference values	31-12-2022

	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of granted permits is in accordance with the reference values.	31-12-2022
		Adjustment plan for the number of permits drawn up	31 - 12-2022
	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed	31-12-2022
Reducing impacts on endangered or protected species (ETP).	Closed area off the coast of Galibi from 1 February to 31 July.	Number of violations based on VMS data	2021-2025
Improved Licensing Compliance	Monitoring compliance with the delivery obligation using VMS data.	Number of violations based on VMS data	2021-2025
	Prepare and publish a list of all designated landing sites	Published list	30-6-2021
	Ensure accessibility of designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30-6-2021

10.8 Njawarie fishing (scuttle bar)

In the bulkhead fishery, nets are set parallel to the shoreline during high tide. This happens at or near the low water limit in a place that dries up at low water. The nets are kept upright with the aid of floats and sticks inserted into the seabed. The underside of the nets is firmly fixed in the mud floor. The fish that remain in the mud behind the nets when the tide turns are then collected at low tide. The catch includes Bang-bang *(Cynoscion acoupa),* Koepila *(Arius proops)* , Pani *(Sciades passani),* Pike *(Centropomus spp.),* Dagoe tifi *(Macrodon ancylodon)* and Butterfish *(Nebris microps).* For bulkhead

Figure 20. Butterfish, *Nebris microps*

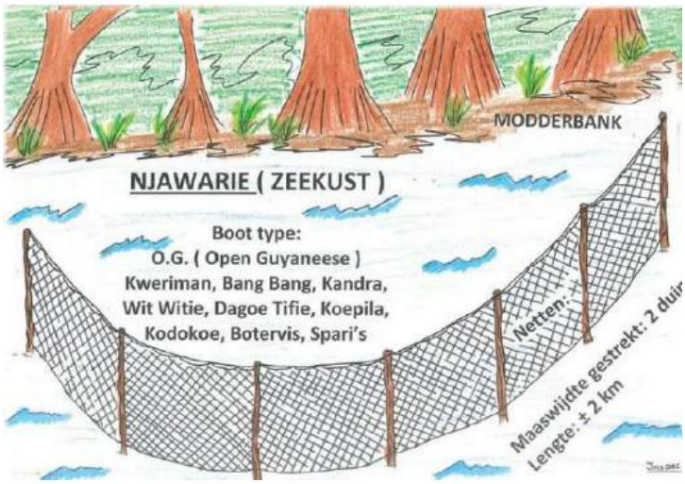

Figure 21. Njawari fishery net setup

In 2002 a research project on Njawarie fisheries was carried out in collaboration with WWF. All caught fish were measured during the study. It is also noted how much fish was thrown away. Figure 22 shows the length distribution of the caught pike by way of illustration. It can indeed be concluded from these and other length distributions that a large proportion of the catches of this form of fishing are made up of smaller specimens. The high bycatch of undersized fish can of course be explained by the use of a very small mesh size of 2 inches.

Figure 23. Pike, *Centropomus spp.*

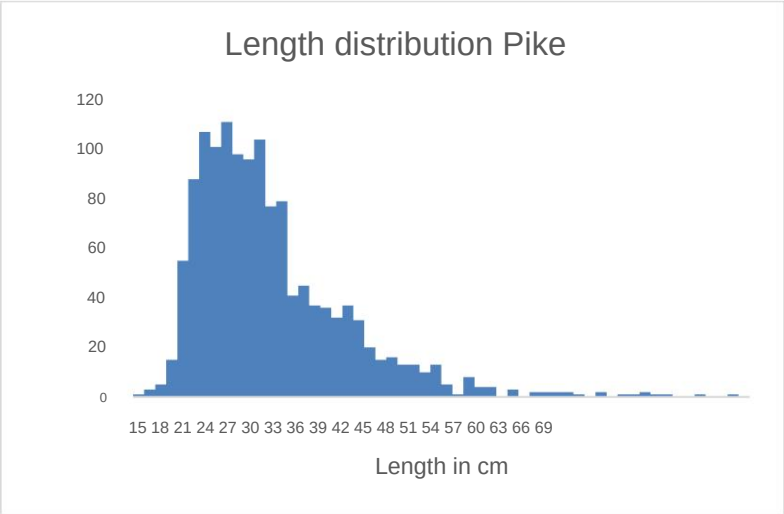

Figure 22. Pike length distribution in the Njawari fishery. Source: WWF, 2002

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (10)	The number of licenses granted	2021-2025
	Maximum 1 net; maximum net length 2000 m.	Net length	2021-2025
	Maximum boat volume: 50 m3	Boot volume	2021-2025
	Maximum engine power: 75 hp	Engine power of the vessels	2021-2025
Reduction of by-catches	Minimum mesh size: 2 inches	Mesh Size Used	2021-2025
sustainable exploitation of fish stocks	No new permits and no transfer of permits (moratorium); evaluation for the possibility of switching to SK driftnet	The number of granted permits; evaluation performed	2021-2025

10.9 Driftnet fishing BV

With an inland water fishing (BV) license, fishing is allowed in creeks and rivers, including estuaries. Fishing also takes place in the shallower parts of the coastal zone when weather conditions permit.
Target species of this type of fishery include butterfish *(Nebris microps),* Bangamary *(Macrodon ancylodon),* Koepila *(Arius proops),* Barbaman *(Bagre bagre),* Crocus *(Micropogonias furnieri) and* Trapun *(Trapon atlanticus).* The allowed mesh size is at least 5 inches and . Because this form of fishing involved an increase in scale due to the use of larger boats, the current permit conditions stipulate that the maximum length of the boats is 10 metres. Because there was also an increase in scale in the Coronie district, while in fact there was no inland waterway fishing because fishing is only possible in the coastal zone, a new fishing category SK-Coronie has been created for this district with effect from 2020.

This means that BV vessels must be inspected and registered as SK vessels with the MAS in accordance with the SK-Coronie license conditions. The maximum number of permits for this category has also been set at 10 permits.

In this form of BV driftnet fishing, shorter nets are used than in SK fishing. Usually no more than a few hundred meters. The maximum net length is 1000 meters.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (75)	The number of granted permits	2021-2025
	Maximum vessel length: 10 m	Length of vessels	2021-2025
	Maximum net length: 500 m	Length of the nets is a maximum of 500 m	2021-2025
	Evaluation boat length and fishing areas BV driftnet	Evaluation carried out 06-30-2021	
Reduction of by-catches	Minimum mesh size: 5 inches	Mesh Size Used	2021-2025
sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values	31-12-2022
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of permits granted is in accordance with the reference values	31-12-2022

10.10 Fuikenvisserij BV

Fish traps are fished in the mouths of the Suriname, Commewijne, Corantijn and Coppename rivers. The trap set-ups are used to fish for shrimps (seabob and witi bere *(Nematopalaemon schmitti)* and for fish.
In Suriname, a distinction is made between the Chinese seine fishery and the Jagi Jagi fishery. The difference is that in the Jagi Jagi fishery, pole arrangements are placed in a V-shape that guide the fish towards the traps (see figure 15). In the Jagi Jagi fishery, the fisherman waits at the back of the trap net for fish that have landed in the net. With a stick with a hook, the fish that pass are caught from the net. The fish that is caught include kopila. The angler stays on the water for 4-6 hours. Several Jagi-Jagi stands are linked together and placed in the river. Each license holder has his or her own place.
Some license holders have multiple licenses and can therefore choose where to fish.

The maximum width of the opening of the Jagi-Jagi trap is 10 meters. The maximum length of the funnel for Commewijne and Nickerie is 250 meters. For Boskamp this is 200 meters for the 1st row, 250 meters for the 2nd row and 300 meters for the 3rd row.

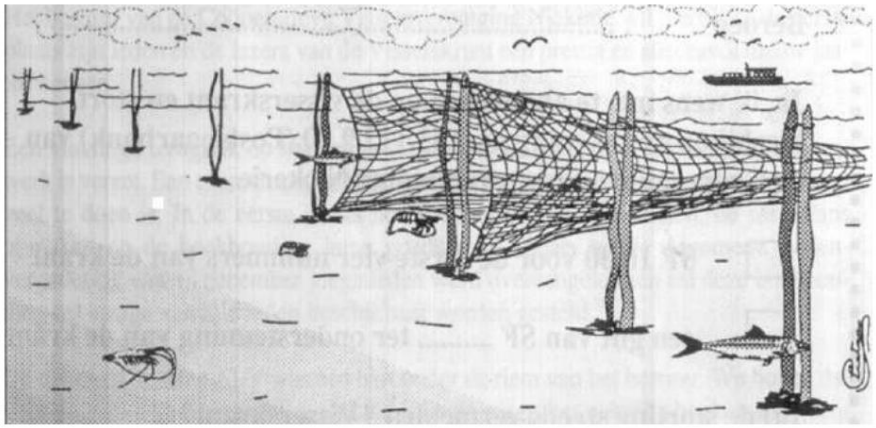

Figure 20. Representation of the trap set-up in the Chinese seine fishery

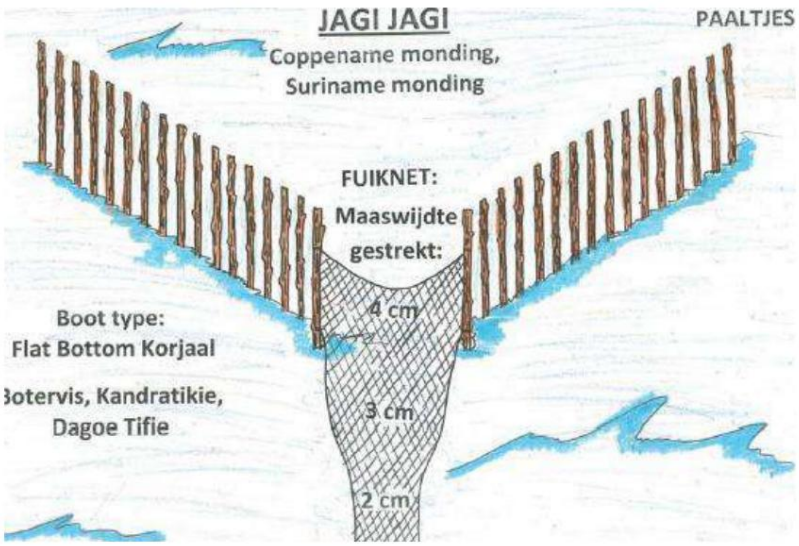

Figure 21. Representation of the trap set-up in the Jagi Jagi fishery.

In the estuaries of the major rivers, the trap fishing for shrimps is practiced daily at several traps and at several locations in the catch area. The average daily catches per trap consist of three to five kilos of shrimp and double the shrimp weight of various species of small smoothfish and squid. The shrimps and the fish are processed by the fisherman's housemates into dried peeled

shrimp and tri. The maximum width of a trap set-up is 21 meters. The minimum mesh size is 1 inch and the maximum mesh size is 4 inches.

In 2015 , a project was carried out with the support of WWF to improve the organization of the trawl net fishery. One of the common complaints was the competition between them for the correct location of fish traps, the uncontrolled placement of fish traps in the navigation channels of the rivers, the occupation of stands without exploiting them and an unfair distribution of stands . Within the project, the positions of the trap positions have been recorded using GPS as much as possible. In collaboration with the MAS and the fishermen, the fish traps in the channels of the rivers have been removed and referred to other places. Due to the regular movement of the sand masses off the coast of Commewijne and at the mouth of the Suriname River, separate marking posts had to be placed at some of the net rows.

In a subsequent project with WWF, 5 local fishing organizations were established in the fishing communities from Nickerie to Galibi. These organizations are closely involved in the management of the trawl net fishery.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (272)	The number of granted permits	2021-2025
	Maximum vessel length: 10 m	Length of vessels	2021-2025
	Maximum width of the trap opening, shrimp 21 m. fish 15 m.	Width of the trap opening	2021-2025
Reduction of by-catches	Minimum mesh size: 1 inch	Mesh Size Used 2021-2025	
	Evaluation of the minimum mesh size	Evaluation done	31-12-2022
Equal opportunities for participation in the trawl net fishery	Developing procedures and conditions for the fair and transparent allocation of fish traps	Developed procedures and conditions; decrease in complaints about unfair distribution	31-12-2022
Stakeholder participation in the decision-making process	Encouraging stakeholder participation in the management of trap sites.	Local organization is involved in the management	2021-2025
	Evaluation of possibilities to transfer management tasks to local organizations or governments	Evaluation done	31-12-2021

Figure 22. Witibere, *Nematopalaemon schmitti*

10.11 Line fishing BV

In line fishing, fishing is done with a longline to which hooks are attached with sidelines. The hooks are baited after which the line is staked and anchored (see Figure 23.). The longline is mainly used to catch smooth fish.

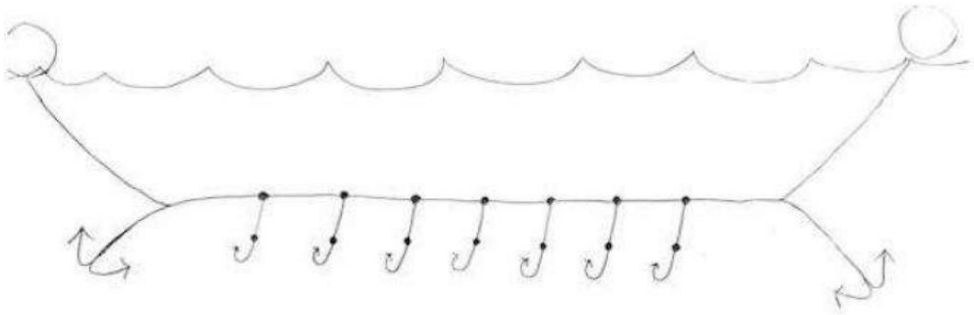

Figure 23. Schematic of a longline. (Source: Fisheries Directorate)

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (10)	The number of granted permits	2021-2025
	Maximum vessel length: 10 m.	Length of vessels	2021-2025
sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values	31-12-2022
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of permits granted is in accordance with the reference values	31-12-2022

Figure 24. Vessels used in BV fisheries

10.12 Swamp fishing

The swamp or pan fishery mainly occurs in the Bigi Pan Special Management Area located north of the Nickerie river. In Special Management Areas (MUMA) various commercial activities (such as fishing, agriculture, aquaculture) may be developed and carried out under the condition of sustainable management. The areas are managed by the Lands Bosbeheer (LBB), Ministry of Spatial Planning, Land and Forest Management (ROGB). Fishing licenses for swamp fishing are issued by the Ministry of LVV.

The biodiversity and sustainable use of the Bigi Pan Special Management Area are under pressure due to an increase in (unregulated) fishing, hunting and tourism (Djosetro & Behagel, 2020). Djosetro & Behagel conclude that there is over-exploitation and that enforcement, supervision and communication between responsible authorities are inadequate. They recommend involving the local population and users of the area more closely in the management of the area.

The Bigi Pan Management Plan 2013-2023 has also been drawn up with regard to the Special Management Area Bigi Pan. This plan also includes an action plan. With regard to fisheries, it is stated, among other things, that the protection of native fish and crustacean species should be promoted and that the consequences of exploitation for the ecosystem should be minimized. More specifically, it is proposed to set up catch statistics for the area, to investigate the area's maximum fishing capacity and to improve compliance with the permit obligation through inspection.

F

Figure 25. Map of the Bigi Pan Special Management Area

Because it has become apparent in recent years that too much undersized fish was caught, it was recently decided in consultation with the fishermen and the Ministry of ROGB to increase the minimum mesh size of gillnets from 1.5 to 3 inches stretched.

Goal	Strategy and actions	Indicator	Timeline
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (60)	The number of licenses granted	2021-2025
Reduction of by-catches	Minimum mesh size: 3 inches	Mesh Size Used 2021-2025	
Reducing illegal fishing	Intensive checks on compliance with permit conditions	Number of checks	2021 - 2025
Stakeholder participation in the decision-making process.	Evaluation of possibilities to transfer management tasks to regional organizations or authorities.	Evaluation done	31-12-2021

Figure 26. Bigi Pan

10.13 Other fisheries BV

In addition to the forms of inland fishing described here, there are also BV fishing forms that are not described, namely:

- BV Sport fishing
- BV Trawl fishing in Bigi Pan

These two fisheries require further research after which goals, strategies and actions will be incorporated into the VMP at the first annual review.

11. Operational Plan

In this Fisheries Management Plan the objectives of the Surinamese fisheries policy are formulated and the measures to be taken to achieve these objectives are laid down. In order to promote the implementation of the intended policy and to make adjustments if necessary, an Operational Plan has also been drawn up in addition to this management plan. This operational plan indicates which actions must be carried out, when and by whom. This means that the progress of the implementation of this management plan can be monitored. During regular evaluations, the results can be assessed and timely adjustments can be made. This working method provides direction for the employees and the entire organization of the Fisheries Directorate.

12. Background Report

This Fisheries Management Plan has been drawn up in part on the basis of knowledge and information contributed by stakeholders during consultations. In addition, information on the institutional framework, legislation, control and enforcement and regional cooperation was also used. For the sake of clarity and the legibility of this management plan, it has been decided to include this information in a separate appendix to this plan; the Background Report (Part B). With this report, the interested reader can learn more about what has been put forward during consultations and the further backgrounds of the Surinamese fisheries policy.

MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES

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Paramaribo, Suriname

FISHERIES MANAGEMENT PLAN FOR SURINAME

2021 – 2025

PART B: BACKGROUND REPORT




Directorate of Fisheries

March 2021

Quote as:

LVV, 2021. Fisheries management plan for Suriname 2021 – 2025 (Part B: Background Report). Directorate of Fisheries, Ministry of Agriculture, Livestock and Fisheries. March 2021

Index

Definitions and abbreviations

ABNJ	Areas Beyond National Jurisdiction
ACP	African, Caribbean and Pacific Group of States
AIS	Automatic Identification System
BRD	Bycatch Reduction Device
BV	Inland Water Fisheries
CBD	Convention on Biological Diversity
CEVIHAS	Central for fishing ports in Suriname
CLME	Caribbean Large Marine Ecosystem
CPUE	Catch Per Unit Effort (catch per unit fishing effort)
CRFM	Caribbean Regional Fisheries Mechanism
CSSI	Comprehensive Security Solutions Inc.
CSWG	Continental Shelf Fisheries Working Group
CVD	Certificate Of Goodness
FAO	Food and Agriculture Organization of the United Nations
FIRMS	Fisheries and Resources Monitoring System
FMP	Fishery Management Plan
GEF	Global Environmental Facility
GBT	Global Biodiversity Target
ICCAT	International Commission for the Conservation of the Atlantic Tunas
IOO	Illegal, Unreported and Unregulated (Fisheries)
HCR	Harvest Control Rule
LBB	the National Forestry Service
LME	Large Marine Ecosystem
LPWG	Large Pelagic Fish Resource Working Group
lvv	Ministry of Agriculture, Livestock and Fisheries

BUT	Maritime Authority Suriname
MCS	Monitoring Control and Surveillance
MSC	Marine Stewardship Council
MSY	Maximum Sustainable Yield
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-governmental organization
NOAA	National Oceanic and Atmospheric Administration
NMA	National Environmental Authority
PCR	Public Certification Report

REBYC-II LAC Sustainable Management of Bycatch in Latin America and Caribbean Trawl Fisheries

RFMO	Regional Fishery Management Organization
RFB	Regional Fisheries Body
RFO	Regional Fishery Organization
ROGB	Ministry of Spatial Planning, Land and Forest Management
ROOM	Ministry of Spatial Planning and the Environment
SIFCO	Suriname Industrial Fisheries Cooperative
SK	Surinamese Coastal Fisheries
SKB	Surinamese coastal fishing Bangamary
IN	Suriname Seafood Association
SUNFO	Suriname National Fishersfolk Organization
TED	Turtle Excluder Device
UNDP	United Nations Development Programme
VCC	Fishing Collective Commewijne
VMP	Fisheries Management Plan
VMS	Vessel Monitoring System
WECAFC	Western Central Atlantic Fisheries Commission

WWF	World Wildlife Fund

1. Institutional framework and stakeholders

Ministry of Agriculture, Livestock and Fisheries (LVV)

A large part of the powers and responsibilities with regard to fisheries policy are entrusted to the Minister of Agriculture, Livestock and Fisheries (LVV). The Minister is authorized to establish rules (after approval by the Council of Ministers) with regard to the conduct of fishing in the Surinamese fishing zone (EEZ). Within the Ministry, the recently restructured Fisheries Directorate implements the fisheries policy. The Directorate is headed by the Director and has two Deputy Directors, namely: Deputy Director for Fisheries Management and Deputy Director for Fisheries Promotion, each with its own secretariat. The main departments Licensing, Monitoring and Inspection and Resorts fall under the Fisheries Management Department. The main departments of Aquaculture, Research and Development and Fisheries Information System fall under the Fisheries Promotion Department. In addition, the following departments fall directly under the Director: Fisheries Centres, Fisheries Information, Administrative Services and the Secretariat.

The Fish Inspection Institute (VKI) is the competent authority responsible for assuring the quality of fish for consumption purposes through inspections and issuing health certificates. The UKI is under the auspices of the Ministry of LVV.

Surinamese Navy

The Surinamese Navy comes under the Ministry of Defense The main base of the Navy is located in La Resource, just outside Paramaribo. However, the Navy also has some small bases in the west and east of the country. The main responsibilities with regard to fishing are the fight against illegal fishing and piracy.

Surinamese Coast Guard

The Coast Guard was established in 2017. The Coast Guard falls under the jurisdiction of the Ministry of the Interior. Since the establishment of the Coast Guard, the fisheries inspection at sea has been part of its range of duties. The coastguard is charged with, among other things, the supervision of compliance with the Sea Fisheries Act 1980 and the Fish Stocks Protection Act 1961.

Ministry of Justice and Police

The Maritime Police of the Ministry of Justice and Police carries out patrols in the Surinamese inland waterways.

Maritime Authority Suriname

The Maritime Authority Suriname (MAS), which was established under the Maritime Authority Act, is responsible, among other things, for the registration of fishing boats under the flag of Suriname. The MAS was established as a legal entity under Article 3 in the context of the privatization of public services. The MAS is responsible for safe and efficient maritime traffic to and from Suriname in accordance with international conventions. With regard to fishing, the MAS is responsible for the registration and inspection of fishing vessels. The designation of sites for the placement of fyke nets for the purpose of net fishing is done in consultation with the MAS.

Ministry of Spatial Planning and the Environment (ROM)

The Ministry of Spatial Planning and the Environment, Environment Directorate, is the national contact point for the Convention on Biological Diversity (CBD). Suriname has been a member of this convention since 1996 and has thereby committed itself to the three objectives of the convention, i.e. 1) conservation of biological diversity, 2) its sustainable use, and 3) a fair distribution of the benefits resulting from the use of genetic resources

yield. For the national implementation of the CBD, Suriname has issued the National Biodiversity Strategy (2006-2020) and the associated Action Plan (2012-2016), together called the NBSAP, which are due for an update, whereby they will be structurally aligned with the Global Biodiversity Targets (GBTs). These documents have been formulated with input from the various stakeholders and serve as companion documents for government and its institutions, international agencies and donors, non-governmental and community-based organisations, private sector and other groups and individuals engaged in the sustainable development of the economics and management of biological resources.

As the national contact point for the CBD, the Ministry of ROM must ensure that Suriname complies with the agreements within this treaty, such as the GBTs and compliance with the national objectives in the NBSAP. The GBTs, set by the CBD Member States, which are directly or indirectly related to the fisheries sector are Target 1,2,3,4,6 and 11. The Fisheries Directorate, in collaboration with the Environment Directorate, will contribute to monitoring the relevant indicators related to these GBTs.

IN

The basis for the establishment of the Surinamese Seafood Association (SSA) originates from the developments surrounding the handling of the laws in order to meet the requirements for continued export to the EU. The actual establishment of SSA took place a few years later under the chairmanship of Mr. P Sewdien. SSA's goal; Promoting an environmentally sustainable, innovative, competitive and knowledge-based fishing and processing industry that uses natural resources efficiently. To achieve this goal, she sees the Public-Private Partnership with the Ministry of LVV as the most important condition.

SICFO

The Suriname Industrial Fisheries Cooperative (SIFCO) is a Surinamese cooperative in the industrial fishing sector in Suriname. The organization is affiliated with the umbrella organization Federation of Surinamese Agrarians (FSA).

SUNFO

The Suriname National Fishersfolk Organization (SUNFO) is an umbrella organization of five regional fisheries organizations.

Representatives from all five regional fishermen's collectives participate in the SUNFO, namely from Boskamp, Commewijne, Coronie, Galibi and Nickerie. The organization was founded in mid-2018 with Satesh Kodai as its first chairman. One aim is to be stronger in export by being able to collectively make international agreements. In addition, she acts as an interlocutor for the government.

WWF

The World Wildlife Fund (WWF) is one of the world's largest and most respected independent conservation organizations in the world. Founded in 1961, recognizable by the panda logo, WWF is a global network operating in more than 100 countries and territories. WWF's mission is to halt the degradation of the Earth's natural resources and build a future where people live in harmony with nature, by preserving biodiversity, ensuring that natural resources become sustainable and by reducing pollution and overconsumption.

THERE

Conservation International (CI) Suriname is a nature conservation organization that has been working in Suriname for 25 years and protects nature in 40 countries for the benefit of people. To guarantee food and well-being, CI focuses on sustainable and fair food production, such as sustainable fishing. Guided by science, CI works worldwide on 3 main themes: climate, oceans, and sustainable water and landscapes.

WECAFC

Established in 1973, the Western Central Atlantic Fishery Commission (WECAFC) operates as a regional fisheries body under Article VI of the FAO Constitution and acts as an advisory body to promote the effective conservation, management and development of living marine resources in the Caribbean and western Central Atlantic region.

CRFM

The Caribbean Regional Fisheries Mechanism (CRFM) is an intergovernmental organization whose mission is to "promote and facilitate the responsible use of the region's fisheries and other aquatic resources for the economic and social benefits of the present and future populations of the region". The CRFM was officially inaugurated on March 27, 2003 in Belize City, Belize, where it is headquartered, following the signing of the “Agreement Establishing the CRFM” on February 4, 2002. The CRFM consists of three bodies: the Council of Ministers; the Caribbean Fisheries Forum; and the CRFM Secretariat. Its members are Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago and the Turks and Caicos Islands.

FAO

The Food and Agriculture Organization (FAO) is a specialized and impartial agency of the United Nations. The aim of FAO is to fight hunger worldwide. FAO contributes to the development of rural areas and the improvement of food quality and agricultural productivity in both developing and developed countries. The organization does this by providing information and education about agriculture, horticulture, forestry, fisheries and food. FAO was founded in 1945 and is headquartered in Rome. Worldwide, FAO has several offices where more than 10,000 employees work. The agency consists of several departments, such as the Department of Agriculture and Consumer Protection, Economic and Social Development, Fisheries and Forestry. These departments are then further subdivided into departments. FAO works with various agencies, such as other UN agencies, companies and national governments.

ICCAT

The International Commission for the Conservation of Atlantic Tunas is an intergovernmental fisheries organization responsible for the conservation of tuna and tuna-like species in the Atlantic Ocean and adjacent seas. ICCAT collects fisheries statistics from its members and from all entities fishing for these species in the Atlantic Ocean, coordinates research on behalf of its members, including stock assessment, develops evidence-based management advice and provides a mechanism for contracting parties to agree on control measures.

2. Legal framework

Sea Fisheries Act (Act of 31 December 1980 concerning regulations in the field of sea fisheries, SB 1980 no. 144, last amended in SB 2001 no. 120)

The aim of the Sea Fisheries Act is to establish a uniform regime for the fishing zone of Suriname. In this Act, the fishing zone is understood to mean the territorial waters (12-mile zone) of the Republic of Suriname and the adjacent 200-mile exclusive economic zone (EEZ). The territorial sea belongs to the territory of Suriname, while Suriname exercises sovereign rights in the EEZ related to certain specified activities such as sea fishing. The Sea Fisheries Act stipulates that it is prohibited for anyone to engage in fishing activities in the fishing zone without a valid permit. The 1980 Sea Fisheries Act also lays down the powers and requirements with regard to the registration of fishing vessels and the granting of licenses for sea fishing.

Chapter II of the Act stipulates that a central fisheries register is kept by the Harbor Master. The register consists of parts A, B and C. Part A registers Surinamese fishing vessels that are (partly) owned by Surinamese, part B registers fishing vessels of which the shipowner is established in Suriname and part C registers foreign fishing vessels that are allowed in Suriname. This system means that, for example, a vessel registered in part A is assigned an SA registration number.

For the SB and SC category, the shipowner must ensure that the catch is predominantly processed in Suriname. Article 23 provides that a license can only be granted to a foreign fishing vessel if an international agreement is in force between Suriname and the State of registry.

The general power to regulate fishing is laid down in Article 25. Rules can be laid down by State Decree regarding:

- a fishing ban for certain species;
- fishing during certain periods;
- a fishing ban for certain areas;
- a ban on the use of certain fishing methods;
- a ban on catching fish below a certain minimum size;
- a maximum amount to be caught.

Chapter VI of the Sea Fisheries Act deals with the establishment of a Consultative Council for Sea Fisheries. The task of the Council is to provide the Minister with solicited and unsolicited advice with regard to sea fishing.

Fish Stock Protection Act (GB 1961 no. 44 as last amended by SB 1981 no. 66)

In the past, the Fish Stocks Protection Act applied to both inland fishing and sea fishing. With the entry into force of the Sea Fisheries Act, this law has only become applicable to the inland waterways of Suriname. In addition to making a license mandatory, the Fish Stocks Protection Act also regulates the license fees to be paid, as well as a number of prohibitions in accordance with this Act.

Act of 5 April 2017, containing rules regarding the establishment of the Coast Guard (Coast Guard Establishment Act)

The Coastguard in Suriname was formally established by law of April 5, 2017. This law describes the tasks and powers of the Coast Guard in more detail. The coastguard is charged with, among other things, the supervision of compliance with the Sea Fisheries Act 1980 and the Fish Stocks Protection Act 1961.

Exclusive Economic Zone (EEZ)

By Law of April 14, 1978 on the extension of the Territorial Sea of the Republic of Suriname and the establishment of the adjacent zone, Suriname has extended its territorial waters to 12 nautical miles and has claimed sovereign rights in the territorial waters and the adjacent exclusive economic zone (EEZ) to 200 nautical miles.

As such, since June 11, 1978 Suriname exercises sovereign rights in the economic zone with regard to the exploration, exploitation, conservation and management of natural resources, both living and non-living on the seabed and in the subsoil and the waters above it. The Act of 14 April 1978 (SRS no. 26) stipulates that it is prohibited for anyone, Surinamese or foreigner, to engage in fishing activities in the fishing zone without a valid permit.

Illegal, Unreported and Unregulated (IUU) fishing

In the IUU fisheries decision 2009 SB no.192, the deputy director of fisheries has been designated as the competent IUU authority. This decision also includes the powers, including checking the correctness of the data on the catch certificate, validating and issuing catch certificates to the interested party.

Catch certificates are required, among other things, for the export of fish products to the European Union. In 2008, the European Commission adopted IUU Regulation 1005/2008 to ban Illegal, Unreported and Unregulated (IUU) fishing. An implementation regulation has been laid down on the basis of this regulation, in which, among other things, the registration of landings has been elaborated (art. 3 EC reg. 1010/2009). In accordance with Article 12 of the Regulation, a catch certificate is required for both imports into and exports to the European Community.

The catch certificate guarantees that the products imported into the EU do not come from IUU fishing. These certificates must be validated by an IUU competent authority of the flag state of the vessel.
They accompany the fishery products throughout the supply chain in the interest of traceability

Draft Fisheries Act

For a long time there has been a desire in Suriname to arrive at a new fisheries law that would replace the existing legislation with regard to fisheries. A draft for the new fisheries law has now been drawn up, partly with the support of the FAO.

The draft Fisheries Act provides for a broad institutional framework with the aim of ensuring a transparent and efficient management and decision-making process within the fisheries sector. It also provides for the establishment of a Fisheries Development Fund with the aim of promoting the ecologically and socio-economically sustainable development of the fisheries and fisheries sector in the Republic of Suriname. The law contains provisions for the management and conservation of fishery resources, including the requirement to establish fisheries management plans. The law also lays down rules regarding the licenses issued to Surinamese fishing vessels within Surinamese waters and attaches great importance to transparency and legal certainty. A new part of the fisheries legislation is the regulation of fishing and related activities on the high seas and outside Surinamese fishing waters. Previously it was impossible for the Republic of Suriname to use

the rights granted as a party or cooperating non-contracting party to regional treaties or regional management organizations. Just like for fishing in the territorial sea and in the Exclusive Economic Zone of Suriname, the new law also introduces a license obligation for fishing on the high seas. Suriname is currently unable to issue permits for international waters.

The development of a new fisheries law is therefore at a very advanced stage. Once this process has been completed, the law will be submitted to the National Assembly for adoption.

International agreements and treaties

In addition to the above laws, there are a large number of international treaties and agreements in force to which Suriname may or may not be bound:

- United Nations Convention on Law of the Sea (UNCLOS), 1982;
- Convention on Biological Diversity (CBD), 1993;
- Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES);
- Ramsar Convention 1971 (The Convention on Wetlands of International Importance, especially as Waterfowl Habitat);
- United Nations Agreement for the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 1995;
- Cartagena Protocol on Biosafety to the convention on Biological Diversity, 2000;
- Rio Declaration on Environment and Development (Agenda 21);
- International Convention for the Prevention of Pollution from Ships (MARPOL);
- Caribbean Environment Program (CEP);
- FAO Code of Conduct for Responsible Fisheries, 1995;
- The Reykjavik declaration on responsible Fisheries in the Marine Ecosystem 2001.
- Caribbean Memorandum of Understanding on Port State Control (CMOU), 1996;
- Agreement on Port State Measures (2016)

Fisheries Inspection Act (SB 2000 no.107)

The Fish Inspection Act 2000 regulates the production, trade, import and export of fishery products in Suriname (including aquaculture) and covers the chain from catch and production to export and sale. According to this law, each type of fishery product is inspected before it is sold. The Minister of Agriculture, Livestock and Fisheries is designated by law as the responsible authority. Inspection and control are performed by quality managers and fisheries inspectors. According to the law, a Fish Inspection Institute must be established (which is now the case. The Fish Inspection Decree (SB 2002 No. 9 and the General Quality Decree (SB 2002 No 10.)) implement some provisions of the Fish Inspection Act.

VMS decision dated January 30, 2008 no. 581 (SB 2008 no. 45)

The VMS Decision stipulates that every license holder, of a vessel that is eligible for this according to the license conditions, is obliged to install a tracking system based on the Argos satellite navigation network system on the relevant fishing vessel. (see also section 5.6 under General policy)

Maritime Zone Act 2017 (SB 2017 no.41)

The law of 7 April 2017 on maritime zones replaces the law of 14 April 1978, which regulated the extension of the territorial sea and the establishment of the EEZ to 200 nautical miles. The Maritime Zones Act 2017 also provides for a better alignment of national legislation with the United Nations Convention on the Law of the Sea of 1982, which was ratified by Suriname in 1998. The new law provides for a better definition of the maritime zones, in particular the

contiguous zone and establishment of the continental shelf with an outer boundary of 350 nautical miles; this was lacking in the old law. By establishing the continental shelf, Suriname secures the rights to explore and exploit the natural resources on the seabed, including sedentary species, in accordance with the Convention on the Law of the Sea. The new law also provides more possibilities to lay down rules with regard to the protection of the environment in accordance with the Convention on the Law of the Sea.

Act containing rules for sustainable environmental management (Environmental Framework Act) (SB 2020 no. 97)

In this law it is stated that the National Environmental Authority (NMA) to be established has as one of its tasks the supervision of the implementation and compliance with the obligations of all environment-related treaties that have been signed and ratified by the Surinamese Government. , after possible adaptation to local circumstances and in consultation with relevant environmental actors, national, regional and local authorities. Another task is to provide instructions for creating and promoting the conditions necessary for the protection of nature and for the preservation of the ecological balance. In addition, the NMA has the power, among other things, to give instructions to policy makers, administrative authorities and other actors for the creation and promotion of the conditions necessary for the protection of the natural environment and for the preservation of the ecological balance. Due to the change that has occurred whereby the Environmental Management Body of the government has been transferred to the Ministry of Spatial Planning and the Environment from July 2020, changes will be made to transfer part of the tasks and powers to the NMA to be set up and the Environment Directorate.

3. Landing obligation

For industrial vessels with an SB or an SC registration (see Chapter 2), pursuant to Articles 3 and 4 of the Sea Fisheries Act, the shipowner must ensure that the catch is predominantly processed in Suriname. For Surinamese vessels with a SA registration, they must regularly dock in Suriname.

Figure 1. Waldringsteiger landing site.

For both the industrial and the artisan fleet, the annual License Conditions Decree stipulates that all fish caught must be delivered to a landing site within Suriname designated by the Directorate of Fisheries. In addition, the license conditions for the artisanal fleet stipulate that the fish caught in Suriname must be treated or processed.

The landing obligation is primarily important for the contribution to the Surinamese economy. Secondly, this duty is conducive to inspecting fishing gear and monitoring catches.

Better enforcement of the landing obligation is considered possible if all sea and coastal fishing vessels have VMS. The sailing movements of vessels, including the sailing movements to the neighboring waters of Guyana and French Guiana, can then be followed. Since 2016, the implementation of VMS has been discussed with artisanal fishermen. It is intended that all sea and coastal fishing vessels will have a working VMS system from 2021.

Consultation and analysis

During the consultations it emerged that a significant part of the SK fleet does not land the fish in Suriname, but in Guyana. This is partly facilitated by the rental of licenses to boat owners established in Guyana.

In principle, the existing landing obligation in Suriname should be able to overcome this problem. After all, if no or insufficient landings are made in Suriname, you will no longer receive a permit the following year. In practice, however, it turns out to be unruly. No permits have yet been withdrawn due to non-compliance with the landing obligation. Enforcement is also made more difficult by crews coming from Guyana

and go home on the vessel after a fishing trip. Delivery notes can also be drawn up for fish that is not landed in Suriname. Finally, it is argued by fishermen in Nickerie that there are no repair facilities in Nickerie and that vessels have to go to Guyana for this reason.

Another important aspect of the landing obligation is that landings must take place at designated landing sites. However, it is currently unclear which landing sites have the status of designated landing sites. There is no clear overview. It is now common for boat owners to land fish on their own jetty, where inspectors and data collectors do not always have access.

4. Fishing Zones

An important part of Suriname's fisheries policy is the establishment of fishing zones for the different types (fish categories) of fisheries. Trawl fishing is not allowed in the waters near the coast. For example, for the seabob shrimp fishery, this fishery is permitted in the zone from the 10 fathom (18.3 metres) to the 15 fathom isobath1 . For fishing for large sea shrimps, this fishing is permitted from the 18 fathom (32.9 metres) isobath. For shrimp fishing for deep-sea shrimp, a limit applies from a depth of 45 fathoms (82.3 metres).
Fish trawling is allowed from 15 fathoms (27.4 metres). For line fishing for large pelagic fish (including tuna), the 28 fathom isobath is the limit.

For artisanal fishing, fishing with the SK fleet is permitted from the coast to the 9 fathom (16.5 meters) isobath. After many complaints in the past about SK driftnet fishing in the estuaries, areas in the mouths of the Nickerie, Suriname, Coppename and Corantij rivers are now closed to SK driftnet fishing. These areas are specified with coordinates in Annex IV of the License Conditions Decision.

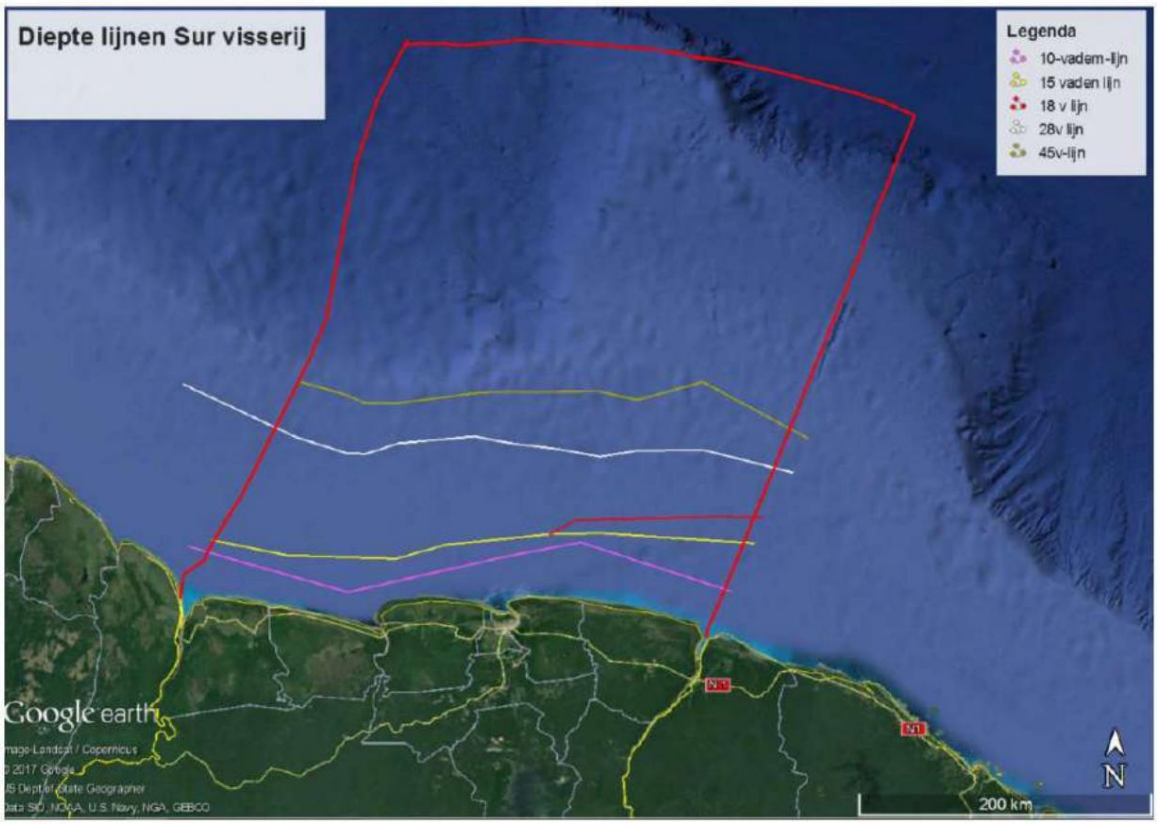


Figure 2. Depth lines delimiting the fishing areas of the different fish categories.

Consultation and analysis

It has been pointed out by the trap fishermen who fish in the mouths of the Corantijn and Coppename rivers that driftnet fishers fish as far as the river mouths and that their trap sets are damaged by the driftnets. Also in Galibi the local fishermen complained that SK boats were fishing into the river.
In addition, it has become apparent that there is a trend to use larger SK boats that also go beyond the sea in deeper water

9 fathom depth line operating. With regard to the SK boats, the wish has been expressed to allow the SK driftnet fishing also beyond the 9 fathom isobath. With regard to fish trawling, there are regular reports of vessels fishing within the 10 fathom isobath, especially in the estuary of the Coppename River.

5. VMS obligation

Suriname has been obliged to have a Vessel Monitoring System (VMS) for the industrial fleet since 2007. This obligation is laid down in the license conditions for this fleet. The requirements that a VMS system must meet are laid down in the VMS Decision of January 30, 2008. Initiatives were started in 2014 to bring the SK fleet under VMS. To this end, tests were carried out on a number of SK vessels. Due to lack of cooperation from fishermen and the malfunctioning of the selected VMS system, this trial was discontinued in 2016.

In 2017, a restart was made with the process of arriving at a VMS system for coastal fisheries, whereby various providers of such a system were asked in August 2017 to submit a quote. Of these offerings, the VMS system of Comprehensive Security Solutions Inc. (CSSI) selected by the Ministry of LVV. After that, however, discussions continued for some time with fisheries organizations about an alternative (AIS) system. Ultimately, however, in the autumn of 2019, the Ministry finally chose CSSI as the provider of the VMS system to be introduced. The intention is now to bring all vessels with the VMS obligation on one VMS platform and to give access to authorities responsible for control. License holders will also have access to the system, whereby they can only follow their own boats. The industrial vessels that currently still use the CLS system will also have to use the new system.

In October 2019, the Ministry signed a contract with CSSI for the supply and installation of 500 VMS units and the VMS service. The Ministry has now called on fishermen through various announcements to pay the costs related to their new VMS system. It has been indicated that no fishing license will be granted if payment has not been made. A large number of fishermen have already paid, but due to the COVID 19 situation, the process has now experienced some stagnation. It is also important that the Ministry, in consultation with SUNFO, has decided to accommodate small-scale fishing companies by also facilitating the lease purchase of a VMS unit. †

VMS Decision

The VMS Decision stipulates that every license holder, of a vessel that is eligible for this according to the license conditions, is obliged to install a tracking system based on the Argos satellite navigation system on the relevant fishing vessel. The VMS system installed on board the fishing vessel shall continuously, permanently and automatically transmit the following data:

(a) The identification data of the fishing vessel concerned;
b) The geographical position of the fishing vessel;
c) The date and time when the fishing vessel's position was determined;
d) The speed and course of the fishing vessel.

The VMS data is retrieved from the internet at least twice a day and then stored. If illegal fishing activities are detected, a map is stored showing the vessel in question and the shipping route. If it is established that fishing activities are being carried out in prohibited zones, the penal provision of Article 31 of the Sea Fisheries Act will apply.

The obligation to have a working VMS system on board is further elaborated in the VMS regulations. The VMS regulations stipulate, among other things, that if the satellite tracking equipment installed on board a fishing vessel is defective or otherwise does not function, the license holder or his representative

every four hours from the time this fact is discovered, to the VMS coordinator by email, fax, telephone or radio the geographic position of the vessel at the time of notification.

Consultation and analysis

It emerged from the consultations that inshore fishermen are also generally in favor of the introduction of the VMS system for all vessels. It is hoped that as a result of the VMS control, fish poaching in Surinamese waters can be reduced. It was also indicated that both fishing trawlers and other vessels fish outside their assigned zones. It is indicated that fishing trawlers come within the 15 fathom isobath. However, larger SK boats also fish outside the 9 fathom isobath.

6. Reducing impacts on biodiversity and the ecosystem

In order to adopt sustainable fishing practices, it is important that only the target species are caught and that other marine life and the ecosystem are not or minimally affected. In order to make fisheries in Suriname more sustainable, measures have been adopted by means of legally binding instruments, which will be discussed in this chapter.

Turtle excluder device (TED)

A Turtle Excluder Device (TED) is a grid installed in the net that ensures that turtles or other large animals that end up in the net can escape again through a net opening in the net. There is currently an obligation (by State Decree) to use a TED for trawling for seabob and large sea shrimp. The TED is not mandatory in deep-sea shrimp fisheries because the risk of bycatch of sea turtles is considered to be very low at the great depths at which fishing takes place. The specifications that a TED must comply with are laid down in the annual License Conditions Decision. These are in line with NOAA's Fisheries Service regulations. NOAA inspectors conduct regular (usually every 2 years) checks for compliance with TED regulations. Certification by NOAA is a requirement to ensure export of shrimp and seabob to the United States.

Consultation and analysis

Compliance with the TED obligation for seabob and large sea shrimp trawling is generally good. NOAA's inspections have gone well in recent years. Nevertheless, infringements of the (correct) use of the TED in the aforementioned fisheries have also been identified, and regular monitoring by the competent authorities remains necessary.

There is currently no obligation to use a TED in the fish trawling fishery in Suriname. Although sea turtles and other vulnerable species are included in the catches, the use of a shrimp TED in the fish trawling fishery is complicated by the fact that the fishing method (the type of net and the way it is brought on board) is different from the fishing method in the shrimp (seabob) fishery . In 2012, and then again in 2017, 2018 and 2019 (NOAA-Hopkins 2017, 2018, 2019), tests were conducted with modified TEDs for the Surinamese fish trawl fishery, in collaboration with NOAA, WWF Guianas and the Fisheries Directorate (with support from the REBYC II LAC project). A flexible 'cable' TED has been developed from this that can be rotated on a net roll. The most recent experiments at sea have shown that this TED drastically reduces the bycatch of turtles (and also other marine animals such as great stingrays) without significantly affecting the catch of target species (Willems, 2020). It has been agreed with the fishing trawl sector to further test this prototype and to jointly develop a step-by-step plan for implementation in the entire fleet (LVV, 2020).

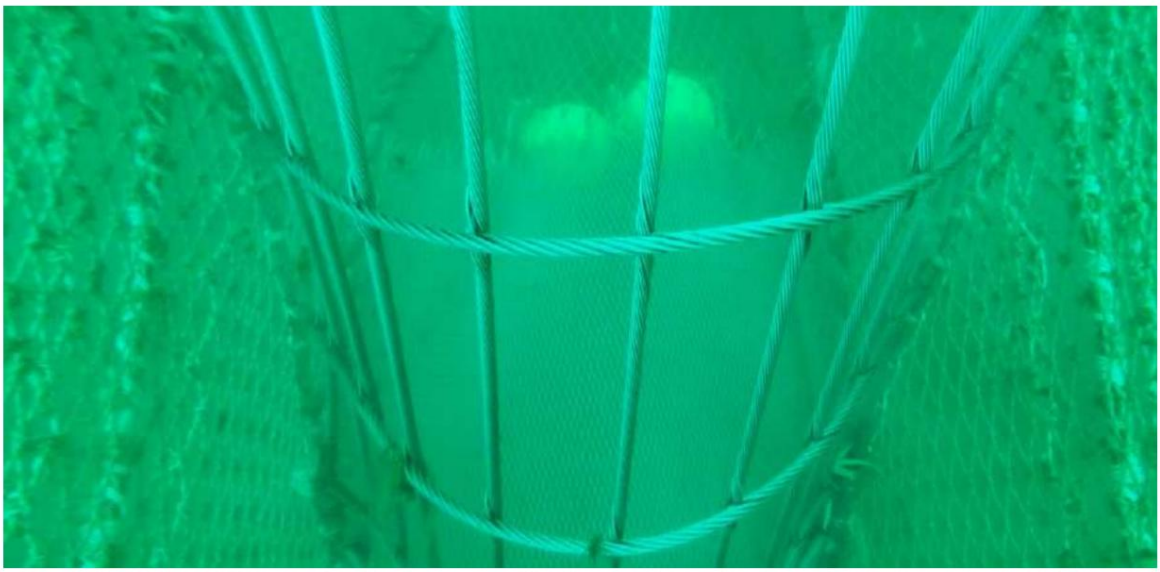


Figure 3. Flexible TED for fish trawling

Bycatch Reduction Device (BRD)

A Bycatch Reduction Device (BRD) is a broad term that denotes any modification to a fishing gear with the aim of reducing unwanted bycatch. In that respect, a TED can also be regarded as a FRG. BRDs are usually used in shrimp trawling where they ensure that (small) fish can escape from the net under water. This ensures that the fishery is more selective and that fewer fish are caught that would otherwise largely be thrown back overboard. At the moment, the use of a BRD is only mandatory in the seabob shrimp trawling fishery (LVV, 2019). This fishery uses a square mesh panel fitted into the cod-end of the net, at the top behind the TED (see Figure 4). The specifications with which this FRG must comply are laid down in the annual Permit Conditions Decision.

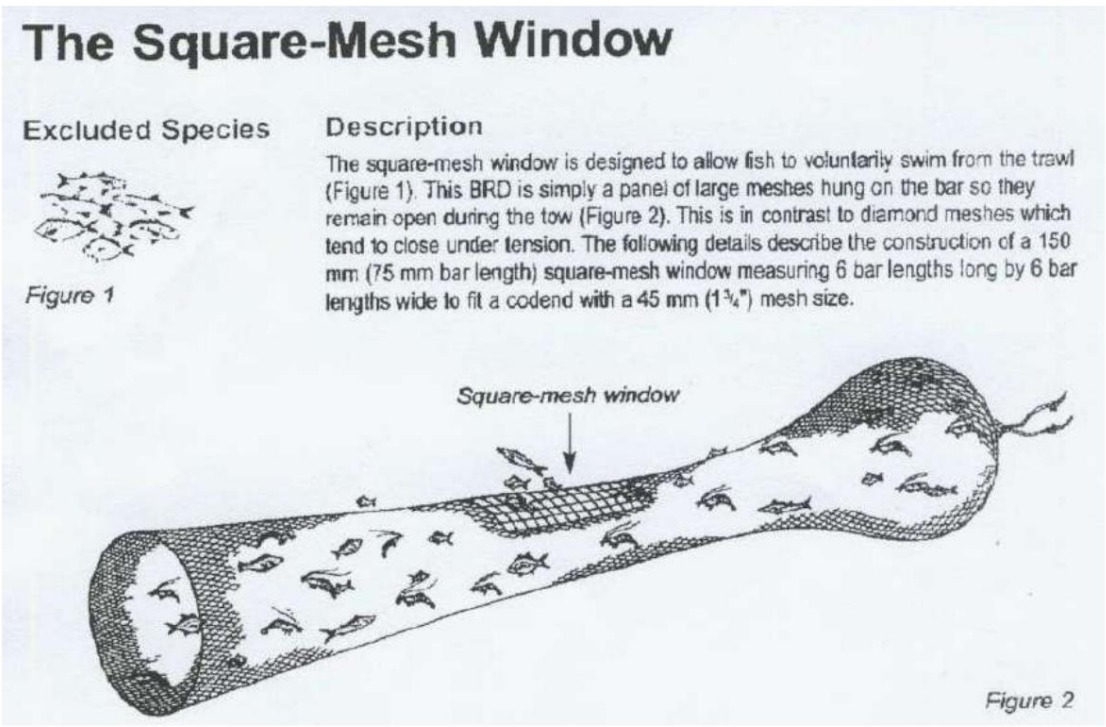


Figure 4. View of a square mesh panel (BRD).

Consultation and analysis

Compliance with the FRG obligation for seabob shrimp trawling is generally good. Nevertheless, infringements of the correct use of the FRG have also been identified. Regular checks by the competent authorities therefore remain necessary.

There is currently no obligation for the use of a FRG in the other forms of trawling in Suriname. However, the by-catch of small, non-marketable fish in the deep sea, large shrimp and fish trawl fisheries is significant. The fish stocks would therefore certainly benefit from the use of a FRG in these types of fisheries.
Before use can be made mandatory, it must be tested which type of FRG is most suitable for the type of fishing in question. In this context, the FRG already used in the seabob fishery seems to be the most promising option for the deep-sea and large sea shrimp fishery.

Protected areas

The VMP 2014-2018 describes that in October 2010 within the framework of the Convention on Biodiversity agreements have been made to protect at least 10% of marine areas worldwide by the year 2020 at the latest through the establishment of Marine Protected Areas (MPA). In that context, in 2017 WWF Guianas and the European Union launched the project *"Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname: the Eastern Gate to the Caribbean."* launched. This project is being carried out by WWF Guianas, Green Heritage Fund Suriname and the Nature Management department of the 's Landsbosbeheer service.
of the then Ministry of Spatial Planning and Land and Forest Management and focuses on the management and protection of marine resources through intensive cooperation at different levels with the ultimate goal of increasing the capacity of the stakeholders for Marine Spatial Planning. Due to the restructuring of this Ministry, whereby the Spatial Planning Directorate was relocated in July 2020 and added to the new Ministry of Spatial Planning and the Environment (ROM) and the Ministry of Land Policy and Forest Management no longer fulfills these tasks, the Ministry of ROM will coordinate the process of establishing MPAs in our sea area in close consultation with the other interested bodies.

To avoid by-catches of sea turtles, an area off the coast of Galibi will be closed from 1 March to 31 July for driftnet fisheries SK and SKB. This area is also recorded with coordinates in Appendix II of the Permit Conditions Decision.

7 Monitoring, Monitoring Control (MCS)

Monitoring, control and supervision *(Monitoring Control and Surveillance; MCS)* is essential to ensure compliance with the permit system and permit conditions . Since fishing activities usually take place far out at sea, compliance with certain rules can only be checked by inspections at sea by a competent authority. In Suriname, the fisheries inspection at sea has taken place in the past through a collaboration between the Fisheries Directorate of the Ministry of Agriculture, Livestock and Fisheries (LVV), the Navy, and boat owners who made their boat available for carrying out the inspections. .

The Coast Guard Suriname was established in 2017. Inspections of fishing activities at sea now belong to the tasks of the Coast Guard. The specific mission of the Coast Guard is to prevent illegal fishing and to protect the natural resources in Surinamese waters.

The Coast Guard cooperates with various authorities in the field of:

- Border surveillance
- Law enforcement in the maritime area
- Supervision of shipping, fishing and environment
- Customs supervision
- Emergency relief and disaster management in the maritime area\
- Search and rescue operations in the maritime area.

The Coast Guard is a civilian organization under the jurisdiction of the Ministry of the Interior. Unlike the Navy, the Coast Guard has no combat duties. The Coast Guard has three ships and seven vehicles to carry out its tasks.

Figure 5. Surinam Coast Guard inspection vessel.

The granting of fishing licenses and the drawing up of the license conditions are the tasks of the Fisheries Directorate of the Ministry of LVV. However, for effective and efficient fisheries inspections, close cooperation between the Fisheries Directorate and the Coast Guard is essential. In order to shape this cooperation, the document “Strategy for at-sea fisheries inspection by the Suriname Coast Guard” was drawn up by the Fisheries Directorate. This document states, among other things, that the training of Coast Guard personnel is at least

regarding Fisheries inspections is essential. Coastguards conducting fisheries inspections at sea must be familiar with all fisheries sectors and the licensing conditions applicable to each type of fishery.
In addition, the coastguards must have the necessary knowledge and expertise to carry out the inspections correctly.

For this reason, the manual 'Fisheries Inspection at Sea' was prepared in October 2017 with the support of the REBYC II LAC project. Also, as part of that project, two training sessions were held with coastguard personnel on fisheries inspection. The manual explains the legal framework for sea fishing, along with the licensing conditions that apply to the different fishing categories. The manual also provides an overview of the most common fish and shrimp species, and how to identify them .

Agreement on Port State Measures (PSMA)

In the fight against Illegal, Unreported and Unregulated (IUU) fishing, Suriname is in favor of joining the PSMA, but must first make all necessary preparations to comply with the conditions set out in the said agreement . As a result, a request was made to the Food and Agriculture Organization of the United Nations (FAO) for support. This will ultimately lead to a National Plan of Action (NPOA) for Suriname.

One of the activities planned in this context is a practical 'Port state inspection' training, which will be aimed at the Inspection Division of the Directorate of Fisheries and other competent authorities in order to be able to carry out the necessary inspections on the boats. After this training, the inspectors will be better able to inspect foreign tuna vessels and Suriname will therefore be able to meet its port state obligations with regard to ICCAT.

Consultation and analysis

During the consultation it emerged that the catch registration of the industrial fleet functions properly. In particular, the catch certificate system introduced for export to the European Union ensures that all catches are traceable back to the vessel that landed the fish. With regard to the registration of the landings of the artisanal fleet, it has been indicated that gaps still exist. Not all places where fish are landed are known or accessible to data recorders and these places need to be mapped out in more detail. Landings by the SK fleet are also randomly registered in many places and the total of landings is estimated by extrapolating the available data. With regard to swamp fishing, fishing in rivers and inland waterways, sport fishing and fishing in Galibi, there is as yet little or no catch registration. This will have to be improved in the coming years.

8 Regional cooperation

Suriname's fishing zone is located in the western part of the Atlantic Ocean. The Surinamese fishing zone is part of FAO Statistical Area 31 (Figure 6). The Western Central Atlantic Fishery Commission (WECAFC) was established for this area under the FAO flag as early as 1973. The WECAFC management area largely corresponds to FAO Statistical Area 31. However, this Commission management area also includes the sea area off the coasts of northern Brazil that is part of FAO Statistical Area 41 (Figure 7). The WECAFC is a Regional Fisheries Body (RFB) as defined in Article VI of the FAO Constitution. This means that the Commission can advise Member States of the Commission on

fisheries management in its management area. However, unlike recommendations from Regional Fishery Management Organizations RFMO (as described in Article XIII of the FAO Constitution), these recommendations are not binding on the member states.

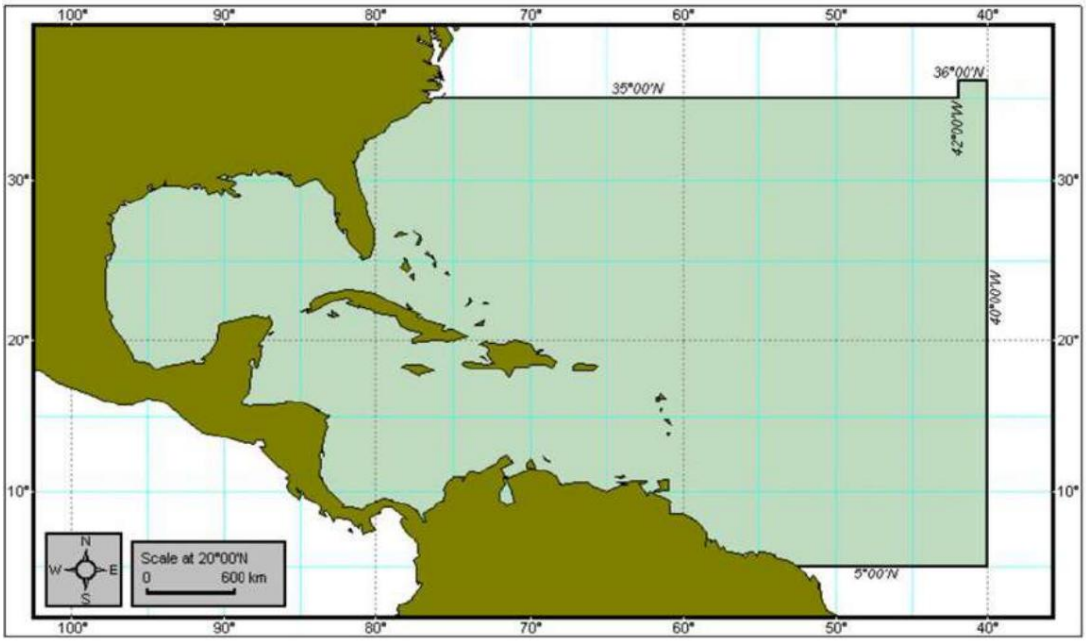


Figure 6. FAO Statistical Area 31.

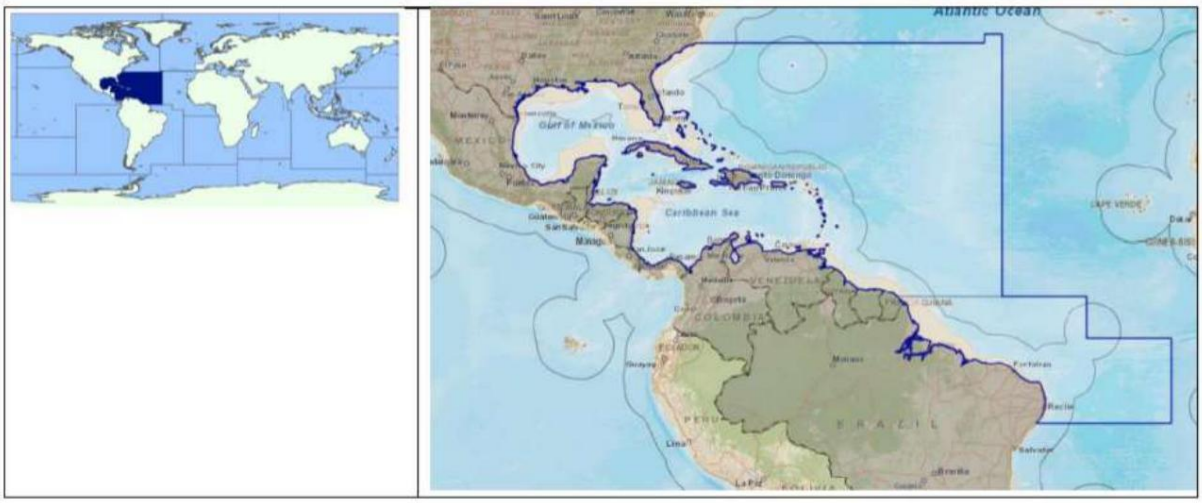
In addition to the WECAFC, several other fisheries organizations have been established in the region. The most important of these for Suriname are the Caribbean Regional Fisheries Mechanism (CRFM) and the International Commission for the Conservation of Atlantic Tunas (ICCAT). CFRM is an organization established (on the basis of a treaty) within the framework of the Caribbean Economic Cooperation Organization CARICOM.
ICCAT is a Regional Fishery Management Organization (RFMO) established by convention. ICCAT can therefore issue binding opinions with regard to the management of the fish species for which this Commission has been established.

Suriname is a member state of WECAFC and CRFM. As described in section 10.1, Suriname has also been a cooperating non-contracting party (Cooperating Non-Contracting Party) of the International Commission for the Conservation of Atlantic Tunas (ICCAT) since 1 November 2011.

Both WECAFC and CRFM are active in promoting sustainable fisheries in the region. Often these organizations also collaborate in projects.

An important development with regard to WECAFC is that in recent years a process has been initiated to explore the possibilities of transforming WECAFC from an RFB to an RFMO. In this context

consultations with Member States have taken place and a number of meetings have also been held. At the meeting held in Barbados in March 2019 (WECAFC, 2019), it was recommended by the participants that the management area for which binding measures could be adopted for the areas outside the jurisdiction of the Member States (Areas Beyond National Jurisdiction, ABNJ). concern. In addition, this new entity could possibly formulate binding measures for certain migratory fish species (straddling and transboundary stocks, or highly migratory stocks) within the EEZs of the Member States. The participants also recommended that further promotion of regional cooperation through existing RFOs and initiatives already underway should be continued.



Figuur 7. WECAFC fisheries management area. Links FAO Statistical Area 31.

Suriname is an active member of the Caribbean Regional Fisheries Mechanism (CRFM) established in 2003. The Council of Ministers of CRFM is the highest body within the CRFM and Suriname is represented in this council by the Minister of LVV. CRFM has a Secretariat that deals with data collection and advice to member states. CRFM has also established a number of fisheries working groups. These are involved in collaboration with regard to research, data collection and stock estimates of the fish stocks present in the region. Suriname is currently active in a number of these. These are the Large Pelagic Fish Resource Working Group (LPWG), the Regional Working Group on Illegal, Unreported and Unregulated (IUU) Fishing and the Continental Shelf Fisheries Working Group (CSWG). In addition, there is currently a WECAFC/CRFM/IFREMER Working Group on Shrimp and Groundfish, a working group in which Suriname is also active.

Suriname is currently participating in two regional projects that are organized by FAO, WECAFC or CRFM or a collaboration thereof. These are the CMLE+ project and the REBYC-LAC project. These projects are explained in more detail below.

CMLE+ Project

The Surinamese fishing zone is part of the “North Brazil Shelf Large Marine Ecosystem” (see figure 8). This LME borders the Caribbean Large Marine Ecosystem (CLME). The combination of these two LMEs is referred to as the CLME+ region. With regard to this region, the CLME+ project (2015-2020) is currently underway. This project is being implemented by the United Nations Development Program (UNDP) with co-funding from the Global Environment Facility (GEF). The aim of the project is to provide support to participating countries in order to improve the management of shared natural resources based on the Ecosystem-Based Management approach. One of the objectives is to promote the Ecosystem Approach to Fisheries (EAF). A number of workshops have been held as part of this project, including workshops within the framework of the Sub-Project on “Ecosystem Approach to Shrimp and groundfish fisheries in the Northern Brazil Shelf” (UNDP/RLA/217/OPS). As part of this project, efforts are being made to promote

regional cooperation on fisheries management. For example with regard to shared shrimp and demersal fish stocks.

Figure 8. Map of the Caribbean Large Marine Ecosystem and the North Brazil Shelf Large Marine Ecosystem.

REBYC II -LAC project

The REBYC II-LAC project aims at sustainable management of by-catches in trawl fisheries in Latin America and the Caribbean. REBYC stands for: 'Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management'. The addition LAC stands for Latin America and Caribbean. Various activities have been developed in Suriname in the past as part of the REBYCII LAC project. For example, with the support of this project, a flexible TED has been developed for fish trawling. Training courses have also been organized for Coast Guard fisheries inspectors. In addition, fishermen were informed about the Ecosystem Approach to Fisheries (EAF). Finally, support has also been given to the promotion of fishermen's organization by helping to set up new fisheries organizations such as SUNFO.

Finally, it can be reported that since 2019 there has also been cooperation with Guyana with regard to seabob management. This is done through the aforementioned CRFM Continental Shelf Fisheries Working Group (CSWG). Furthermore, WWF is also active in Suriname in order to promote cooperation on regional fisheries management in the Guianas (WWF, 2019).

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MINISTRY OF AGRICULTURE, LIVESTOCK AND FISHERIES

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Paramaribo, Suriname

FISHERIES MANAGEMENT PLAN FOR SURINAME

2021 – 2025

PART C: OPERATIONAL PLAN




Directorate of Fisheries

March 2021

Quote as:

LVV, 2021. Fisheries management plan for Suriname 2021 – 2025 (Part C: Operational plan). Directorate of Fisheries, Ministry of Agriculture, Livestock and Fisheries. March 2021

Governance, decision-making and participation						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Strengthening support for fisheries policy through active stakeholder participation in the decision-making process	Evaluation of the possibilities to transfer responsibilities for carried out to local organizations or authorities.	Evaluation of fisheries management	31/12/2022	DIRVIS, RVO, NGBWG	SOIL	
	Annual stakeholder meeting to discuss implementation of the VMP	Annual meeting with active stakeholder participation	2021 - 2025	DIRVIS, all stakeholders	SOIL	
Promoting the quality of decision-making by using stakeholder knowledge in fisheries policy development	Active National Prawns and Bottom fish Working group that formulates advice for fisheries policy	Number of meeting and reports	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Active Consultative Council for Sea Fisheries that formulates advice for fisheries policy	Number of meetings and reports	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	

Licensing Policy						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Matching fishing effort to the status of exploited stocks	Establishment of provisional limits for the number of licenses per fishing category	Provisional limits set in Fisheries License conditions Decision 2021	2021	DIRVIS, RVO, NGBWG	SOIL	
	Setting targets for the number of licenses and capacity, in accordance with the status of the exploited stocks, or using the precautionary principle, to ensure environmentally sustainable fisheries	Targets set for all fisheries categories	31/12/2021	DIRVIS, RVO, NGBWG	SOIL	
	Assignment of a fixed document number to all issued permits.	Document numbers added to permit file	2021	SOIL	DIRVIS: Dept. Permits	
	No new licenses (document numbers) are issued for fisheries categories for which the established maximum number of licenses has been reached Development of	There is no exceeding of the established maximum number of document numbers	2021	SOIL	SOIL	
	reduction plans to achieve the target values related to Reduction Plans established the number of licenses		31/12/2021	DIRVIS, RVO, NGBWG	SOIL	
	Implementation of the reduction plans drawn up	Fishing effort is decreasing in accordance with reduction plans	2022 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Prevent multiple boats from using the same permit by, for example, making permits difficult to duplicate	Number of boats using a duplicate license is decreasing	2021 - 2025	DIRVIS, RVO, NGBWG, MCS authorities	SOIL	
Transparency and accountability of the process of licensing	Establishing the conditions and procedures relating to Conditions transfer and drafted revocation of licenses and consistent	and procedures for the issuance, compliance therewith.	31/12/2021	DIRVIS, RVO, NGBWG	SOIL	

Transparency and accountability of the licensing process	Publication of the list of issued permits and document numbers including a substantiation of any deviations from this VMP	List published with quarterly update	31/03/2021	SOIL	SOIL	

Vessel registration						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
	Clarification of the terms, procedures and responsibilities with Terms and procedures related to registration and replacement of fishing vessels and consistent compliance with therewith.		31/12/2021	DIRVIS, BUT	SOIL	
fishing licenses granted in 2020 will be **registration and replacement** document relevant fishing category, vessel and license holder. No new from 2021 for fisheries categories where the maximum number of	All **Transparency and accounted for by the process** linked to a unique number that is linked **from fishing vessels** to the document numbers will be issued permits has been reached.	Document numbers added to permit file	2021	SOIL	SOIL	

Monitoring, Monitoring Control						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Combating illegal (IUU) fishing through effective monitoring, control and surveillance (MCS); Improving compliance with permit conditions	Development and implementation of a national MCS strategy.	MCS strategy and developed published	31/03/2021	DIRVIS, MCS authoriteiten, FAO	DIRVIS, FAO	
	Drafting and signing a Memorandum of Understanding (MoU) between authorities involved in fisheries control	MoU drafted and signed	30/09/2021	DIRVIS, MCS authoriteiten	SOIL	
	Development and adoption of a National Action Plan for fighting illegal (IUU) fishing (NPOA-IUU)	NPOA-IUU developed	31/12/2021	DIRVIS, MCS authoriteiten, FAO	SOIL	
	Establishment of a formal cooperation structure between the authorities involved in fisheries control to to implement the NPOA-IUU	Collaboration structure set up and active	31/12/2022	DIRVIS, MCS authorities	SOIL	
	Improving operational capabilities for MCS at sea and on land	Improved available capacity (people, material, resources) for MCS	2021 - 2025	DIRVIS, MCS authorities	SOIL	
	Intensification of fisheries inspections both at sea and on land	Number of inspections performed at sea/land	2021 - 2025	DIRVIS, MCS authorities	SOIL	
	Guaranteeing free access to mooring and Free access to all landing sites inspection and data recording	g sites for landing	2021 - 2025	DIRVIS, license holders/owners/be rulers landing places	SOIL	
	Designating sites designated by LVV meet the conditions set	Landing sites Landing	2022	SOIL	SOIL	
	Improving the quality of fisheries inspections through training of inspectors	Training of inspectors performed	31/12/2021	DIRVIS, MCS authorities, FAO	SOIL	
	Ratification and implementation of the Port State Convention Measures (PSMA)	PSMA ratified	31/12/2022	DIRVIS, MCS authorities, Ministry of Foreign Affairs	SOIL	
	Implementation of the measures in the Regional Action Plan to Combat Illegal (IUU) Fishing	Measures implemented	31/12/2022	DIRVIS, MCS authorities, FAO	SOIL	

	Establish and maintain a list of vessels confirmed to have engaged in IUU fishing. Share data in the region.	List drawn up and data shared	31/12/2021	DIRVIS, MCS authorities, FAO	SOIL	
	Installation of VMS on all vessels in the industrial and coastal fishing fleet (i.e. all vessels except BV)	VMS installed on all vessels except BV	30/06/2021	SOIL	SOIL	
	Checking the landing obligation by means of VMS data	Monthly check of VMS data.	2021 - 2025	DIRVIS, MCS authorities		

Reduction of effects on the ecosystem						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Reduction of the effects of fishing on protected species and marine ecosystem	Promote the use of TEDs in all trawling categories to prevent bycatch of sea turtles and other vulnerable species (eg sharks and rays).	Increase in TED's use; reduction of bycatch of vulnerable species	2021 - 2025	DIRVIS, RVO, NGBWG, fishing sector	DIRVIS, fishing industry	
	Promoting the use of net adjustments (FRGs) to reduce unwanted by-catches	Increase in use of FRGs; reduction of unwanted by-catches	2021 - 2025	DIRVIS, RVO, NGBWG, fishing sector	DIRVIS, fishing industry	
	Ban on the landing of swim bladder without landing of the whole fish Evaluation of the	Ban imposed and enforced	31/12/2021	DIRVIS, RVO, NGBWG	SOIL	
	effects of bottom fishing gears on benthic habitats	Evaluation done	31/12/2023	DIRVIS, RVO, NGBWG	SOIL	
	Assessment of the setting of protected areas (MPAs), with a view to protecting fish stocks, reducing by-catches, impacts on seabed habitats and protected areas species (ETP).	Evaluation done	31/12/2023	DIRVIS, RVO, NGBWG	SOIL	
	Marking of fishing gear in order to hold the responsible party liable for damage caused by loosened, lost or dumped fishing gear, and the control thereof during the inspection by the Directorate of Fisheries and other control authorities	Full implementation of fishing gear marking requirement	31/12/2022	DIRVIS, NGBWG, MAS	SOIL	
	Introducing a reporting obligation for fishermen at the MAS when they become detached observed or lost gear	Obligation to report	2021-2025	DIRVIS, NGBWG, MAS	SOIL	

Regional cooperation						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Enhanced regional cooperation on straddling fish stocks	Contribute to the development joint fisheries management actions/initiatives for fish stocks	Contribution made to regional	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Coordination of fishing effort measures such as time (seasonal), depth zones and technical measures to promote policy consistency across the region	Contribution made to regional actions/initiatives	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Contribute to the implementation of the Regional Strategy to Bycatch Management ('Regional strategy on bycatch management')	Contribution made to regional actions/initiatives	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Participation in and contributions to the scientific and advisory tasks of the regional 'shrimp and groundfish' working group' with regard to and groundfish stocks, management plans and HCRs.	Active participation in the 'shrimp and groundfish working group' and regional stock assessments	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Contribute to the development of a formal partnership between relevant organizations to fight illegal (IUU) fishing in the region. (Using the Memorandum of Understanding on Port State Control in the Caribbean Region (CMoU) as a model.)	Contribution made to regional actions/initiatives	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Contribute to the development of the WECAFC 'Regional Record of Fishing Vessels', ensuring compatibility with the 'FAO Global Record'.	Contribution made to Regional Record of Fishing Vessels	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	

Enhanced Regional Cooperation on Fisheries Control (MCS)

Enhanced Regional Cooperation on Fisheries Control (MCS)	Provide fisheries data and information on the priority species - as delineated in the ad interim DCRF - and for the related stocks and fisheries, to populate and update the WECAFC regional database.	Data provided for regional database	2021 - 2025	SOIL	SOIL	
	Contribute to the development of a regional policy with regard to registration, licensing and chartering of fishing vessels and with regard to transhipment of fish in line with the Caribbean Community Common Fisheries Policy and the WECAFC [Draft] Recommendations.	Contribution made to regional actions/initiatives	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	
	Contributions to the FAO web portals for the Global Record and the Agreement on Port State Measures.	Contribution submitted	2021 - 2025	DIRVIS, RVO, NGBWG, CRFM, FAO, other countries in the region	DIRVIS, NGBWG	

Data collection and research						
Goal	**Strategy and**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Improved data collection	**actions** Implementation of the data collection system	CALIPSEO system operational	30/06/2021	DIRVIS, FAO	DIRVIS, FAO	
	CALIPSEO Collection of catch and bycatch data (including discards and ETP species) per fish species for all fisheries categories for stock estimation.	Available data	2021-2025	SOIL	SOIL	
	Collection of landing and fishing effort data and per fishing category for stock estimates	Available data	2021-2025	SOIL	SOIL	
	Re-introduce the on-board observer program and other methods of collecting catch data	Number of observers performed trips (last haul data CCTV, etc.)	31/12/2021	SOIL	SOIL	
	Improving species-level data collection (catch and bycatch) through industrial vessel logbooks	Log data available for industrial fleet	31/12/2021	DIRVIS, NGBWG, fishing industry	SOIL	
	Improving data collection at species level (catch and bycatch) through logbooks on artisanal vessels	Log data available for artisan fleet	31/12/2022	DIRVIS, NGBWG, fishing industry	SOIL	
	Tailor fisheries data collection and research to indicators and data needs of national and international bodies/ organizations (e.g. FAO reporting, CBD indicators,...)	Data available for (inter)national bodies	2021 - 2025	SOIL	SOIL	
File estimate execution	Increasing capacity and competences for file estimates	Number of qualified staff employees	31/12/2021	DIRVIS, FAO, other relevant partners	SOIL	
	Execution of file estimates and performed from reference point estimates for fish stock management	Number of stock determinations	2022 - 2025	DIRVIS,FAO, other relevant partners	SOIL	

Large pelagic line fishery						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number of permits granted in 2020 (60)	Length of vessels Maximum	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum vessel length: 32 m	engine power: 1000 Engine horsepower.	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum number of hooks: 2000 on horizontal longlines Minimum hook size: No. 5/0. Hook	vessels Number of hooks used	2021 - 2025	DIRVIS, BUT	SOIL	
	size used Maximum allowable catch quantities per species, vessel in accordance with ICCAT per vessel guidelines	per species, per Catch	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
			2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
			2021 - 2025	SOIL	SOIL	
Limit of catch areas From 35 fathom depth		Number of violations based on VMS data	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
Combating illegal fishing (IUU)	Improving inspection at sea and landing control	Number of catch and landing inspections performed	2021 - 2025	DIRVIS, MCS authorities	SOIL	
Improved data collection	Mandatory registration of all fish landed by species level; reporting of catch and bycatch through logbook that meets at least ICCAT guidelines	Log data availability	31/12/2021	DIRVIS, NGBWG, fishing industry	fishing sector	
	Improved capacity of data recorders in the recognition of large pelagic fish species at landing	Recording data available at species level	31/12/2022	DIRVIS, NGBWG, fishing industry	SOIL	
Reduction of impacts on protected species (dolphins, sharks, birds)	Mapping by-catches using observers and/or CCTV observer data/camera images	Availability of	31/12/2022	DIRVIS, NGBWG, fishing industry	SOIL	
Strengthening regional cooperation	Evaluation of licensing to third countries.	Evaluation done	31/12/2021	DIRVIS, RVO, NGBWG	SOIL	
	Evaluation of the possibilities for Suriname to become a 'Contracting Party' of ICCAT.	Evaluation done	31/12/2021	DIRVIS, RVO, NGBWG	SOIL	

Line fishing snapper and mackerel						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (224)	Number of licenses issued	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum vessel length: 30 m Length of vessels Maximum engine		2021 - 2025	DIRVIS, BUT	SOIL	
	power: 400 Engine power of the pk	vessels	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum number of verticals Number of vertical	hand lines used: 14	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
	Maximum number of horizontal lines Used	number of horizontal lines: 1	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
	Maximum number of hooks: 2000 on horizontal longlines, 20 on vertical hand lines.	lines Number of hooks used	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
	Minimum hook size: No. 3/0. Hook size used Determination of		2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
	a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set	31/12/2021	DIRVIS, NGBWG	NGBWG	
	Fishing with fishing methods other than lines (especially cages and driftnets) is prohibited	Number of violations of the use of prohibited fishing methods	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
Limit of fishing areas	Vanaf 18 Surinamese waters	Number of violations based on VMS data	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	
	Evaluation for the establishment of a specific fishing zone and establishment of a fishing zone if necessary	Evaluation performed (and zone set)	31/12/2022	DIRVIS, NGBWG	NGBWG	
Combating illegal fishing (IUU)	Improving maritime inspection and landing control	Number of catch and landing inspections performed	2021 - 2025	DIRVIS, MCS authorities	SOIL	
Strengthening regional cooperation	Evaluation of the Treaty with Venezuela	Evaluation done	31/12/2021	DIRVIS, BuZa	SOIL	
	Regional consultation (with Venezuela) regarding the maximum number of fishing licenses based on (historical) reference values for the sustainable exploitation of red snapper and mackerel stocks	Consultation carried out. Fixed maximum number of permits	31/12/2021	DIRVIS, BuZa	SOIL	

Strengthening regional cooperation	Foreign (Venezuelan) vessels caught fishing without a license in Surinamese waters are (as suggested by the IUU rules) on a blacklist	Blacklist drawn up	2021 - 2025	DIRVIS, MSC authoriteiten	SOIL	

Bottom trawling deep-sea shrimp						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (4)	Number of licenses issued	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum engine power: 500 Engine horsepowervermogen	vessels	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum vessel length: 28 m Length of vessels From 200 fathom		2021 - 2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	depth in Number of violations based on	Surinamese waters from VMS data	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Reduction of by-catches	Minimum mesh size of the bag: Used mesh size 45 mm		2021 - 2025	DIRVIS, fishing industry	fishing industry	
	Mapping of by-catches and discards through observers and/or CCTV	Data on bycatch and discards available	31/12/2022	DIRVIS, fishing industry	SOIL	
	Introduction of suitable 'Bycatch Reduction Devises (BRD)'	Use of FRG according to LVV guidelines	01/01/2023	DIRVIS, fishing industry	SOIL	
Sustainable exploitation of shrimp stocks.	Determination of reference values (e.g. CPUE) for sustainable exploitation of deep-sea shrimp stocks	Established reference values	31/12/2023	DIRVIS, NGBWG	SOIL	
	Regulation of the number of vessels and the fishing effort in order to maintain shrimp stocks above formulated reference values permits and fisheries established (based on being below the reference level of reference values) the number of days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Target values for the number If the stock effort is	31/12/2023	DIRVIS, NGBWG	SOIL	
		Adjustment of the number of days at sea	31/12/2023	DIRVIS, NGBWG	NGBWG	
	Determination of a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set	31/12/2021	DIRVIS, NGBWG	NGBWG	
Protection of habitats and ecosystems.	Improving the selectivity and limitation of fishing activities in sensitive areas.	Mapped fishing areas and risk assessment on soil impact performed	31/12/2023	DIRVIS, fishing industry	SOIL	

Bottom trawling for large sea shrimp						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (35)	Number of licenses issued	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum engine power: 500 Engine horsepowervermogen	vessels	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum vessel length: 28 m Length of vessels From a depth of		2021 - 2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	18 fathoms in Surinamese waters	Number of violations based on VMS data Minimum mesh size	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Reduction of by-catches	of the bag: Used mesh size 45 mm.		2021 - 2025	DIRVIS, fishing industry	fishing industry	
	Mapping the and discard data from available obse	Bycatch and discard data Bycatch rvers and/or CCTV	31/12/2022	DIRVIS, fishing industry	SOIL	
	Introduction of appropriate bycatch reduction guidelines (BRD)	Use of FRG according to LVV guidelines	01/01/2023	DIRVIS, fishing industry	SOIL	
Sustainable exploitation of shrimp stocks.	Determination of reference values (e.g. CPUE) for sustainable exploitation of Penaeus shrimp stocks	Established reference values	31/12/2022	DIRVIS, NGBWG	SOIL	
	Regulation of the number of vessels and the fishing effort in order to maintain shrimp stocks above Target values for the n	umber of formulated reference values for licenses and fisheries . If th (based on reference values).	31/12/2022	DIRVIS, NGBWG	SOIL	
	is below the reference level, the number days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Adjustment of the number of days at sea	31/12/2022	DIRVIS, NGBWG	NGBWG	
	Determination of a (provisional) maximum number of days at sea per vessel	(Provisional) maximum set	31/12/2021	DIRVIS, NGBWG	NGBWG	
	In order to reduce the number of active vessels, it will be possible to transfer days at sea.	Developed system for transfer at sea	31/12/2021	DIRVIS, NGBWG	NGBWG	

Reducing Impacts on Endangered or Protected Species (ETP)	Enforcement of the use of TEDs as well as evaluation of alternative TEDs (eg TTEDs).	Consistent use of TEDs; NOAA TED Certification Maintained to Ensure US Exports	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Protection of habitats and ecosystems	Improving the selectivity and limitation of fishing activities in sensitive areas.	Mapped fishing areas and risk assessment on soil impact performed	31/12/2023	DIRVIS, fishing industry	SOIL	

Bottom trawling seabob shrimp						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (26)	Number of licenses issued	2021 - 2025	DIRVIS, RVO, NGBWG, SWG	SOIL	
	Maximum engine power: 500 Engine horsepowervermogen	vessels	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum vessel length: 26 m. Length of vessels From 10 to 15/18		2021 - 2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	fathoms depth Number of violations based on Surinamese waters	from VMS data	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Reduction of by-catches	Minimum mesh size of the bag: Used mesh size 45 mm		2021 - 2025	DIRVIS, fishing industry	fishing industry	
	Mandatory use of 'bycatch reduction devises (BRD)'	Use of FRG according to LVV guidelines	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Sustainable exploitation of seabob stock	Maximum number of days at sea based on file estimate and HCR	Number of days at sea	2021 - 2025	DIRVIS, SWG, NGBWG	SWG	
Reducing impacts on endangered or protected species (ETP).	Enforcement of the use of TEDs as well as evaluation of alternative TEDs (eg TTEDs).	Consistent use of TEDs; NOAA TED Certification Maintained to Ensure US Exports	2021 - 2025	DIRVIS, fishing industry	fishing industry	

Bottom trawling demersal fish						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (47)	Number of licenses issued	2021 - 2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum engine power: 500 hp	Engine power of the vessels	2021 - 2025	DIRVIS, BUT	SOIL	
	Maximum total length of bottom tendon (or bottom tendons when using two nets): 50 m; cables (precursors) of max. 70 m	Bottom tendon length (-tendons) and cables	2021 - 2025	DIRVIS, fishing industry	fishing industry	
	Maximum vessel length: 32 m	Vessel length	2021 - 2025	DIRVIS, BUT	SOIL	
Boundary of catch areas	From 15 to 35 fathoms depth	Number of violations based on VMS data	2021 - 2025	DIRVIS, fishing industry	fishing industry	
Reduction of by-catches	Minimum mesh size of the bag: 80 mm; outer pocket at least 160 mm	Mesh Size Used	2021 - 2025	DIRVIS, fishing industry	fishing industry	
	Introduction of appropriate bycatch reduction guidelines (BRD)	Use of FRG according to LVV guidelines	01/01/2023	DIRVIS, fishing industry	SOIL	
	Evaluation of the minimum mesh size Determination of	Evaluation done	31/12/2022			
Sustainable exploitation of fish stocks	reference values (e.g. CPUE) sustainable exploitation of commercial	Reference values established for fish stocks	31/12/2022	DIRVIS, NGBWG	SOIL	
	Regulation of the number of vessels and the fishing effort in order to maintain commercial above licenses and fishing effort formulated reference values (based on reference values). files located under the reference level, the number of days at sea for the fleet and thus the number of days at sea per vessel is reduced.	Targets for the number of fish stocks maintain. If important from	31/12/2022	DIRVIS, NGBWG	SOIL	
		Adjustment of the number of days at sea	31/12/2022	DIRVIS, NGBWG	SOIL	
		Adjustment plan for the number of permits drawn up	31/12/2022	DIRVIS, NGBWG	SOIL	
	Maximum number of days at sea per vessel: 170 days.	Number of days at sea performed	2021	DIRVIS, fishing industry	fishing industry	

Sustainable exploitation of fish stocks	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed	31/12/2022	DIRVIS, NGBWG	NGBWG	
	Promote the landing of all fish caught (excluding protected species and undersized fish)	Discard percentages based on of observer data	2021 - 2025	DIRVIS fishing sector	fishing industry	
	Ban on landing of fish bladder without landing of the whole fish	Regulations set	31/12/2022	SOIL	SOIL	
Reducing impacts on endangered or protected species (ETP).	Introduction of a suitable 'Turtle Excluder Device' (TED)	Use of TED according to LVV guidelines	01/01/2023	DIRVIS, fishing industry, WWF	SOIL	
Protection of habitats and ecosystems.	Improving the selectivity and limitation of fishing activities in sensitive areas.	Fishing areas mapped and risk assessment on soil impact performed	31/12/2023	DIRVIS, fishing industry	SOIL	

Drift net fishing SK						
Goal	**Strategy and**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	**actions** No additional permits will be issued compared to the (SK – GG) at 330 (SK-OG))	number of permits granted in 2020 (75	2021-2025	DIRVIS, NGBWG	SOIL	
	Maximum net length: closed boats (SK-GG) 4000 m., open boats (SK-OG) 3000 m.	Net length	2021-2025	DIRVIS, NGBWG	NGBWG	
	Maximum engine power: closed boats 155 hp, open boats 75 hp	Engine power of the vessels	2021-2025	DIRVIS, BUT	SOIL	
	Maximum boat volume: closed boats 85 m3, open boats 65 m3	Boot volume	2021-2025	DIRVIS, BUT	SOIL	
	Maximum volume of fish storage: closed boats 12 m3, open boats 7 m3	Fish storage volume	2021-2025	DIRVIS, BUT	SOIL	
	Discontinuation of replacement of a open type with a closed boat	The number of closed boats	2021-2025	SOIL	SOIL	
	Development of conditions with regard to the construction and layout of coastal fishing vessels taking into account fishing capacity, hygiene, safety and working conditions	Conditions developed with timeline for implementation	31 – 12 - 2021	DIRVIS, NGBWG, ARBEID	SOIL	
Limit of fishing areas	From 4 to 9 fathoms in depth Surinamese waters	Number of violations based on VMS data	2021-2025	DIRVIS, NGBWG	NGB WG	
	Delimitation of a closed area in the mouth of the Marowijne River adjacent to the existing no fishing zone for SK driftnet fishing to protect indigenous subsistence fishermen and protecting sea turtles	Closed area in the Marowijne estuary demarcated adjacent to the existing no fishing zone	31/12/2021	SOIL	SOIL	
Reduction of by-catches	Minimum mesh size: 8 inches; maximum 30 % 5 inch	Mesh Size Used	2021-2025	DIRVIS, License holder, crew	license holder	
	Determination of reference values for the sustainable exploitation of commercial fish stocks.	Established reference values	31 – 12 -2022	DIRVIS, NGB WG	NGB WG	

Sustainable exploitation of fish stocks

Sustainable exploitation of fish stocks	Regulation of number of vessels and net length in order to ensure for commercial fish stocks above are in accordance with reference to maintain established reference values.	significant number of licenses granted values.	2023-2025	DIRVIS, NGB WG	NGB WG	
	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed		DIRVIS, NGB WG	NGB WG	
			31/12/2022	DIRVIS, NGB WG	NGB WG	
				DIRVIS, NGB WG	NGB WG	
Reducing Impacts on Endangered or Protected Species (ETP) and the Environment	Closed area off the coast of Galibi from February 1 to with July 31	Number of violations based on VMS data	2021-2025	DIRVIS, NGB WG	NGB WG	
	Monitoring the bycatch of sea turtles and other ETP species	Data on bycatch of ETP types available	2022-2025	DIRVIS, MCS authorities	SOIL	
	Research into possibilities to reduce bycatch of protected species	Mapped out opportunities to reduce bycatch	2023 - 2025	DIRVIS, NGO's	SOIL	
	Marking of fishing gear in order to hold the responsible party liable for damage caused by loosened, lost or dumped fishing gear, and the control thereof during the inspection by the Directorate of Fisheries and other control authorities	Full implementation of fishing gear marking requirement	31/12/2022	DIRVIS, BUT	SOIL	
	Introducing a reporting obligation for fishermen to the MAS in the event of a disconnection. Reporting obligation complied with or lost fishing gear		2021-2025	DIRVIS, BUT	SOIL	
Improved Licensing Compliance	Monitoring compliance with obligation using VMS data VMS data.	Number of violations based on the delivery	2021-2025	DIRVIS, NGBWG	SOIL	
	Prepare and publish a list of all designated landing sites.	Published list of landing sites	30/06/2021	SOIL	SOIL	
	Ensure accessibility of designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30/06/2021	DIRVIS, NGBWG	SOIL	

Improved Licensing Compliance

	Evaluation of the possibilities to give access to the SK driftnet carried out in waters deeper than 10 fathoms.	fishery Evaluation	31/12/2022	DIRVIS, NGBWG	SOIL	
Improving working conditions	Establish a transparent system to facilitate the legal employment of workers from Guyana. In collaboration with the JUSPOL and Labour ministries.	System active	31/12/2022	DIRVIS, NGBWG, JUSPOL, WORK	SOIL	

Driftnet fishery SK Coronie						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (10)	Number of licenses issued	2021-2025	DIRVIS, NGBWG	SOIL	
	Maximum net length: 1000 m	Net length	2021-2025	DIRVIS, NGBWG	NGBWG	
	Maximum engine power: 40 hp	Engine power of the vessels	2021-2025	DIRVIS, BUT	SOIL	
	Maximum boat volume: 30 m3	Boot volume	2021-2025	DIRVIS, BUT	SOIL	
	Maximum volume of fish storage: 3 m3	Volume of fish storage	2021-2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	Off the coast of Coronie to a depth of 9 fathoms	Number of violations based on SMS data	2021-2025	DIRVIS, NGB WG	NGB WG	
Reduction of by-catches	Minimum mesh size: 5 inches	Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
Sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values	31/12/2022	DIRVIS, NGB WG	NGB WG	
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of permits granted is in accordance with the reference values	31/12/2022	DIRVIS, NGB WG	NGB WG	

Line fishing SK						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	Number of hooks maximum 2000	Number of hooks	2021-2025	DIRVIS, NGBWG	SOIL	
	Hook size minimum No. 6	Hook size	2021-2025	DIRVIS, NGBWG	NGBWG	
	Maximum engine power: 75 hp (AND)	Engine power	2022-2025	DIRVIS, BUT	SOIL	
	Maximum boat volume: 65 m3 (OG)	Boat volume	2022-2025	DIRVIS, BUT	SOIL	
	Maximum volume of fish storage: 7 m3 (AND)	Volume fish storage	2022-2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	Between a depth of 4 and 10 fathoms	Number of violations based on SMS data	2021-2025	DIRVIS, NGBWG	NGBWG	
Sustainable exploitation of fish stocks	Determination of reference values for sustainable exploitation of the Established commercial fish stocks.	Reference Values for	31/12/2022	SOIL	SOIL	
	Regulating the number of vessels in order to maintain important commercial fish stocks above established reference values.	The number of permits granted is in accordance with the reference values	31/12/2022	DIRVIS, NGBWG	NGBWG	
	Evaluation of impact and potential of this type of fishery	Evaluation done	30/06/2022	SOIL	SOIL	
Improved Licensing Compliance	Monitoring compliance with the obligation using VMS data VMS data.	Number of violations based on the delivery	2021-2025	SOIL	SOIL	
	Prepare and publish a list of all designated landing sites	Published list	30/06/2021	SOIL	SOIL	
	Ensure accessibility of designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30/06/2021	DIRVIS; NGBWG	SOIL	

Driftnet fishing SK Bangamary						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (55)	The number of granted permits	2021-2025	DIRVIS, RVA, NGB WG	SOIL	
	Maximum net length: 2000 m.	Length of the nets	2021-2025	DIRVIS, NGB WG	NGB WG	
	Maximum engine power: 55 hp. vessels Maximum boat volume: 40 m3. Boat volume	Engine power of the	2021-2025	DIRVIS, BUT	SOIL	
	Maximum volume of fish storage: 5 m3.		2021-2025	DIRVIS, BUT	SOIL	
		Volume fish storage	2021-2025	DIRVIS, BUT	SOIL	
Limit of fishing areas	From 3 fathom depth to 5 fathom depth.	Number of violations based on VMS data	2021-2025	DIRVIS, NGB WG	NGB WG	
Reduction of by-catches Minimum mesh size: 3 inches.		Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
Sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values	31/12/2022	DIRVIS, NGB WG	NGB WG	
	Regulation of number of vessel licenses is in accordance with important commercial reference values. fish stocks above established	The number of granted reference values.	31/12/2022	DIRVIS, NGB WG	NGB WG	
		Adjustment plan for the number of permits drawn up	31/12/2022	DIRVIS, NGB WG	NGB WG	
	The options for reducing the number of active vessels are being explored	Reduction plan for the number of active vessels developed	31/12/2022	DIRVIS, NGB WG	NGB WG	
Reducing impacts on endangered or protected species (ETP).	Closed area off the coast of Number February 1 to VMS data July 31.	of violations based on Galibi from	2021-2025	DIRVIS, NGB WG	NGB WG	
Improved Licensing Compliance	Monitoring compliance with obligation using VMS data VMS data	Number of violations based on the delivery	2021-2025	DIRVIS, MCS authorities	SOIL	
	Prepare and publish a list of all designated landing sites	Published list	30/06/2021	SOIL	SOIL	
	Assurance of the accessibility of the designated landing sites for authorized personnel of the Fisheries Directorate.	All landing places are accessible	30/06/2021	SOIL	SOIL	

Njawarie (scuttle bar) fishery SK						
Goal	**Strategy and**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	**actions** No additional permits will be issued compared to the number in 2020 (10)	The number of granted permits	2021-2025	DIRVIS, RVA, NGB WG	SOIL	
	Maximum 1 net; maximum net length 2000 m.	Net length	2021-2025	DIRVIS, NGB WG	NGB WG	
	Maximum boat volume: 50 m3 Boat	volume	2021-2025	DIRVIS, BUT	SOIL	
	Maximum engine power: 75 hp vessels	Engine power of the	2021-2025	DIRVIS, BUT	SOIL	
Reduction of by-catches	Minimum mesh size: 2 inches	Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
Sustainable exploitation of fish stocks	No new permits and no transfer of permits (moratorium); evaluation for the possibility of switching to SK driftnet	The number of permits granted; evaluation performed	2021-2025	DIRVIS, NGB WG	NGB WG	

Driftnet fishing BV						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (75)	The number of granted permits	2021-2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum vessel length: 10 m Vesse	length Maximum length of	2021-2025	DIRVIS, BUT	SOIL	
	Maximum net length: 500 m	the nets is 500 m	2021-2025	DIRVIS, NGBWG	NGBWG	
	Evaluation boat length and fishing areas BV driftnet	Evaluation done	30/06/2021	DIRVIS, NGBWG	NGBWG	
Reduction of by-catches Minimum m	mesh size: 5 inches	Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
Sustainable exploitation of fish stocks	Establishment of reference values for sustainable exploitation of commercial fish stocks.	Established reference values	31/12/2022	DIRVIS, NGB WG	NGB WG	
	Regulation of the number of vessels in order to commercial fish stocks granted over licenses is in accordance to maintain established reference values.	The number of with the reference values	31/12/2022	DIRVIS, NGB WG	NGB WG	

Fishing net fishing BV						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (272)	The number of granted permits	2021-2025	SOIL, RVA, NGBWG	SOIL	
	Maximum vessel length: 10 m Length of the vessels Maximum		2021-2025	DIRVIS, BUT	SOIL	
	width of the trap opening, shrimp 21 m. Fish 15 m.	Width of the trap opening	2021-2025	DIRVIS, NGBWG	NGBWG	
Reduction of by-catches	Minimum mesh size: 1 inch	Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
	Evaluation of the minimum mesh size	Evaluation done	31/12/2022	DIRVIS, NGBWG	NGBWG	
Equal opportunities for participation in the trap net fishing	Developing procedures and conditions for fairness and transparent allocation of trap sites	Developed procedures and conditions; decrease in complaints about unfair distribution	31/12/2022	DIRVIS, NGBWG	DIRVIS, NGBWG	
Stakeholder participation in the decision-making process	Encouraging stakeholder participation in the management of trap sites.	Local organization is involved in the management	2021-2025	DIRVIS, NGBWG	NGBWG	
	Evaluation of possibilities to transfer management tasks to by local organizations or authorities	Evaluation carried out	31/12/2021	DIRVIS, NGBWG	NGBWG	

Line fishing BV						
Goal	**Strategy and actions**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	No additional permits will be issued compared to the number in 2020 (10)	The number of granted permits	2021-2025	DIRVIS, RVO, NGBWG	SOIL	
	Maximum vessel length: 10 m. Length of vessels Establishing		2021-2025	DIRVIS, BUT	SOIL	
Sustainable exploitation of fish stocks	reference values for sustainable exploitation of commercial fishery resources.	Established reference values	31/12/2022	DIRVIS, NGBWG	NGBWG	
	Regulation of number of vessels in order to achieve important stocks granted in excess of licenses is in accordance with values referentie to keep.	The number of commercial fish the established reference	31/12/2022	DIRVIS, NGBWG	NGBWG	

Swamp fishing BV						
Goal	**Strategy and**	**Indicator**	**Timeline**	**Actors**	**Lead responsibility**	**Status**
Fishing capacity limitation	**actions** No additional permits will be issued compared to the number in 2020 (60)	The number of granted permits	2021-2025	DIRVIS, RVO, NGBWG	SOIL	
Reduction of by-catches Minimum mesh size: 3 inches		Mesh Size Used	2021-2025	DIRVIS, Licensee, Crew	license holder	
Reducing illegal fishing	Intensive checks on compliance with permit conditions	Number of checks	2021 - 2025	DIRVIS, MCS authorities	SOIL	
Stakeholder participation in the decision-making process.	Evaluation of possibilities to transfer management tasks to regional organizations or authorities.	Evaluation carried out	31/12/2021	DIRVIS, NGBWG	NGBWG	