



Food and Agriculture
Organization of the
United Nations



©FAO/Samantha James



**SWM SUSTAINABLE
WILDLIFE
MANAGEMENT
PROGRAMME**

Facts and figures from inland fisheries in North Rupununi 2019-2020 Report

Required citation:

FAO, CIRAD, CIFOR and WCS. 2021. *Facts and figures from inland fisheries in North Rupununi 2019–2020 Report*. The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO), CIRAD, CIFOR or WCS concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO, CIRAD, CIFOR or WCS in preference to others of a similar nature that are not mentioned. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO, CIRAD, CIFOR or WCS.



© FAO, 2021

Some rights reserved. This work is made available under the Creative Commons Attribution- NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non- commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons license. If a translation of this work is created, it must include the following disclaimer along with the required citation: “This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition.”

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via www.fao.org/contact-us/licence-request or addressed to copyright@fao.org.

FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org.

CIFOR information products are available on CIFOR website (<https://www.cifor.org/library/>). Any enquiries regarding CIFOR publications can be emailed to CIFOR Data and Information Services Manager, Sufiet Erlita, via CIFOR-library@cgiar.org or CIFOR-Publications@cgiar.org.

CIRAD information products are available on CIRAD Agritrop website <https://agritrop.cirad.fr/> and also on Dataverse.

WCS publications and bibliographies, working papers, and datasets are available on the WCS website (<https://library.wcs.org/Scientific-Research.aspx>).

Front cover photos: ©FAO/Samantha James

Back cover photos: ©FAO/Barbara Frazer

**Facts and figures
from inland fisheries
in North Rupununi
2019–2020 Report**

CONTENTS

The Rupununi, Region 9	2
Who is involved in the NRDDDB fisheries management plan?	3
How is data collected?	4
Household consumption per year.....	4
Fishing practices	5
Fishing gear and species caught	5
Subsistence or trade?	6
Awareness and enforcement	7
Way forward	8



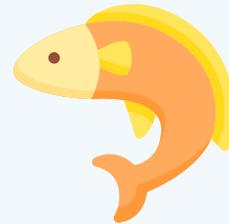


©FAO/Nathalie van Vleet



The Rupununi, Region 9

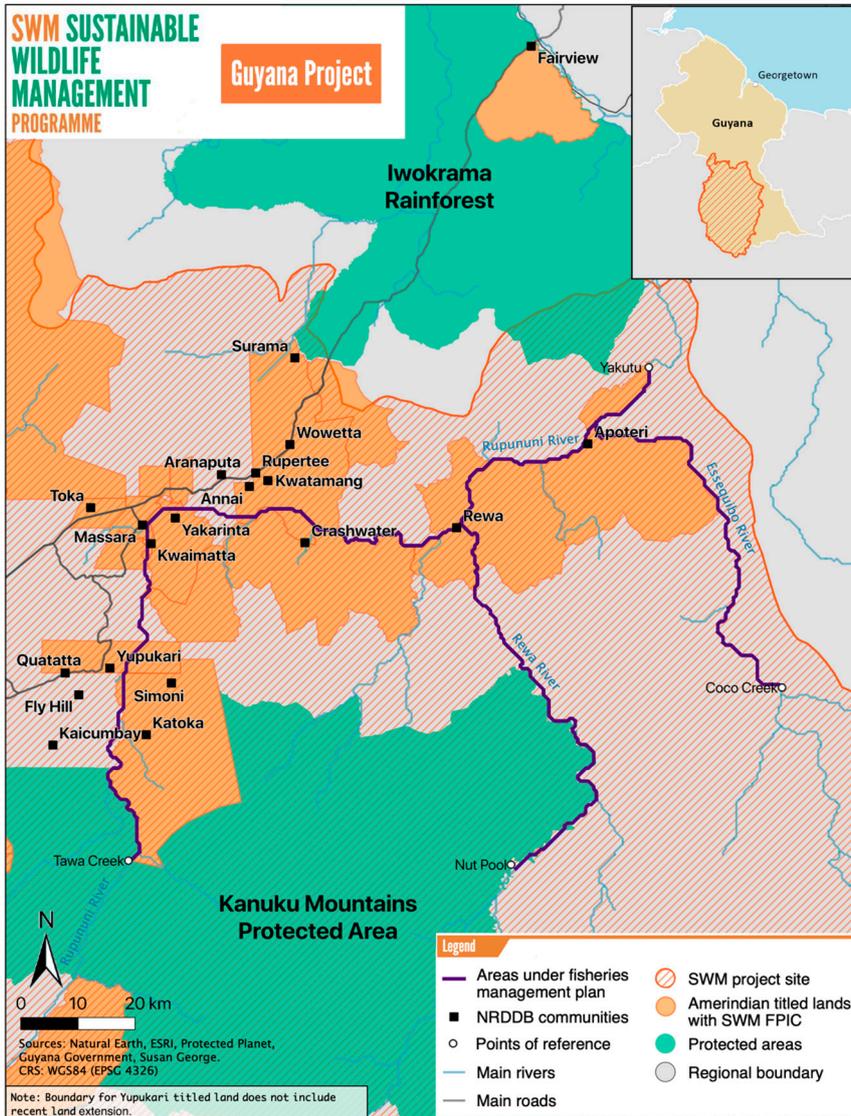
is a seasonally flooded wetland and an integral ecosystem for healthy fish populations. On recognizing diminishing fish stocks and threats from mining, large scale agriculture and over-harvesting back in 2011, the North Rupununi District Development Board (NRDDDB) mobilized local communities and developed a plan to **manage fish resources in a sustainable manner.**



In 2018, with support from the Sustainable Wildlife Management Programme and in collaboration with the Ministry of Agriculture, Department of Fisheries, the NRDDDB started piloting the first inland fisheries management plan in Guyana with the active participation of both community leaders and community members. Implementation started in 2019 with awareness raising about the fisheries guidelines through **village meetings** and **river patrols**. Additionally, a comprehensive monitoring system was put in place.



Who is involved in the NRDDB fisheries management plan?



The Fisheries Management Plan covers 386 km of the **Essequibo, Rupununi and Rewa rivers** and involves guidelines for sustainable fisheries, monitoring of fish use and trade, monitoring of fish stocks, and river patrols for awareness raising.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

The Fisheries Management Area includes 20 communities that are members of the NRDDB with a population of about **7 146**, mainly from the Makushi tribe.



sustainable fisheries



monitoring of fish stocks



monitoring of fish use and trade



river patrols

How is data collected?



Data collection started in July 2019 and is currently ongoing. Below, we present data collected over one-and-a-half years from **July 2019 to December 2020**.

The type of data collected includes:



Interviews with **78 fishers** about their catch and fishing practices



Interviews with **67 village shops** about fish trade



13 river patrols to raise awareness but also to monitor fishing activities along the river



Fish stock assessment in **23 sites** to assess species, quantities and fish length



Monthly consumption surveys conducted by Community Environmental Resource Workers (CREWs) among **787 households**

Household consumption per year

85.5% eat fish on a daily or weekly basis



When fish is brought home, it is cooked, and this dish may provide for **1 or 2 daily meals**



The amount of fish eaten per capita is **0.13 kg per day**. This is equal to **50.74 kg** of fish per capita per year, higher than the national average and among the highest averages worldwide



Fishing practices



86.3%
of the households
interviewed go fishing
daily or weekly



About **66%** of the
fishing trips last one day,
although some fishing trips
last up to more than a week



Fishing trips also often
combine other activities
such as **hunting
and farming**



90%
of the fishers
are men



10%
are women

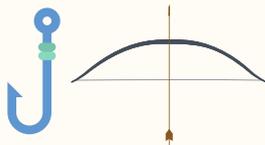


Women participate in
23% of the fishing
trips, among other
engagements in fishing,
cooking and preservation
of fish by smoking

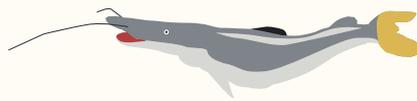


Average catch per day
ranges between
10 to 20 kg
of fish

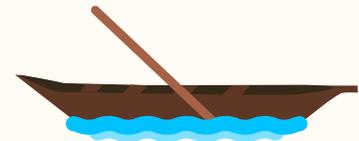
Fishing gear and species caught



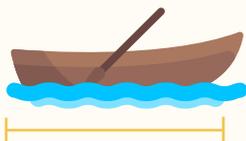
Hook and line as well as
bow and arrow are
the methods most often
used by fishers



Most commonly
caught species in boat
fishing trips include:
baicara, black perai, lukanani,
amuri and tiger fish



When fishing from a boat,
45% of the
fishing trips are done
in dugout canoes



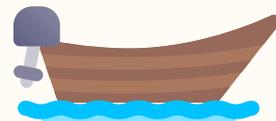
76% of the boats are
less than 5 metres long
and **72%** of them
use an outboard engine



Fish is preserved either
by **smoking
or salting**,
but a minority (1.1%)
have access to coolers to
conserve the fish on ice



31% are in
aluminum boats



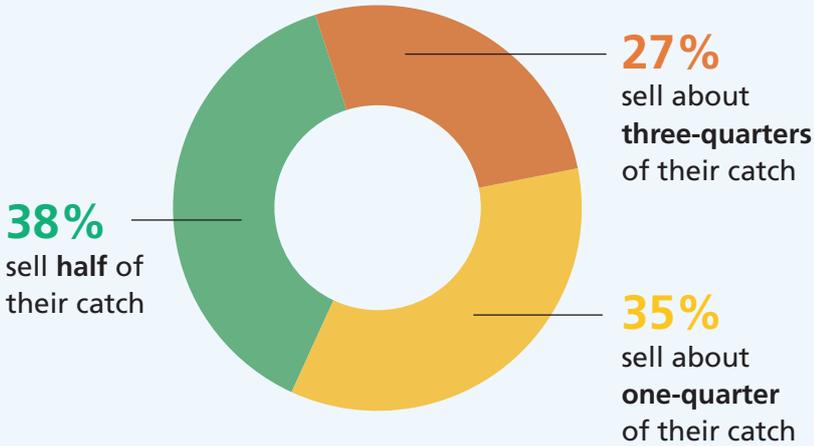
23% are in
wooden boats

Subsistence or trade?

Subsistence as well as small- and medium-scale commercial fishing are practised in the North Rupununi

Out of those 786 interviewed, 27% sold part of their catch

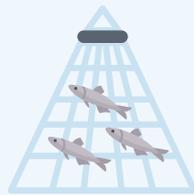
Of the fishers who sold their catch:



©FAO/David Mansell-Moullin



©FAO/Samantha James



In most cases commercial fishing is done with the use of **seines, nets** and occasionally with **traditional techniques**



Fish is sold for **GYD 400 per pound** (USD 2 per pound)

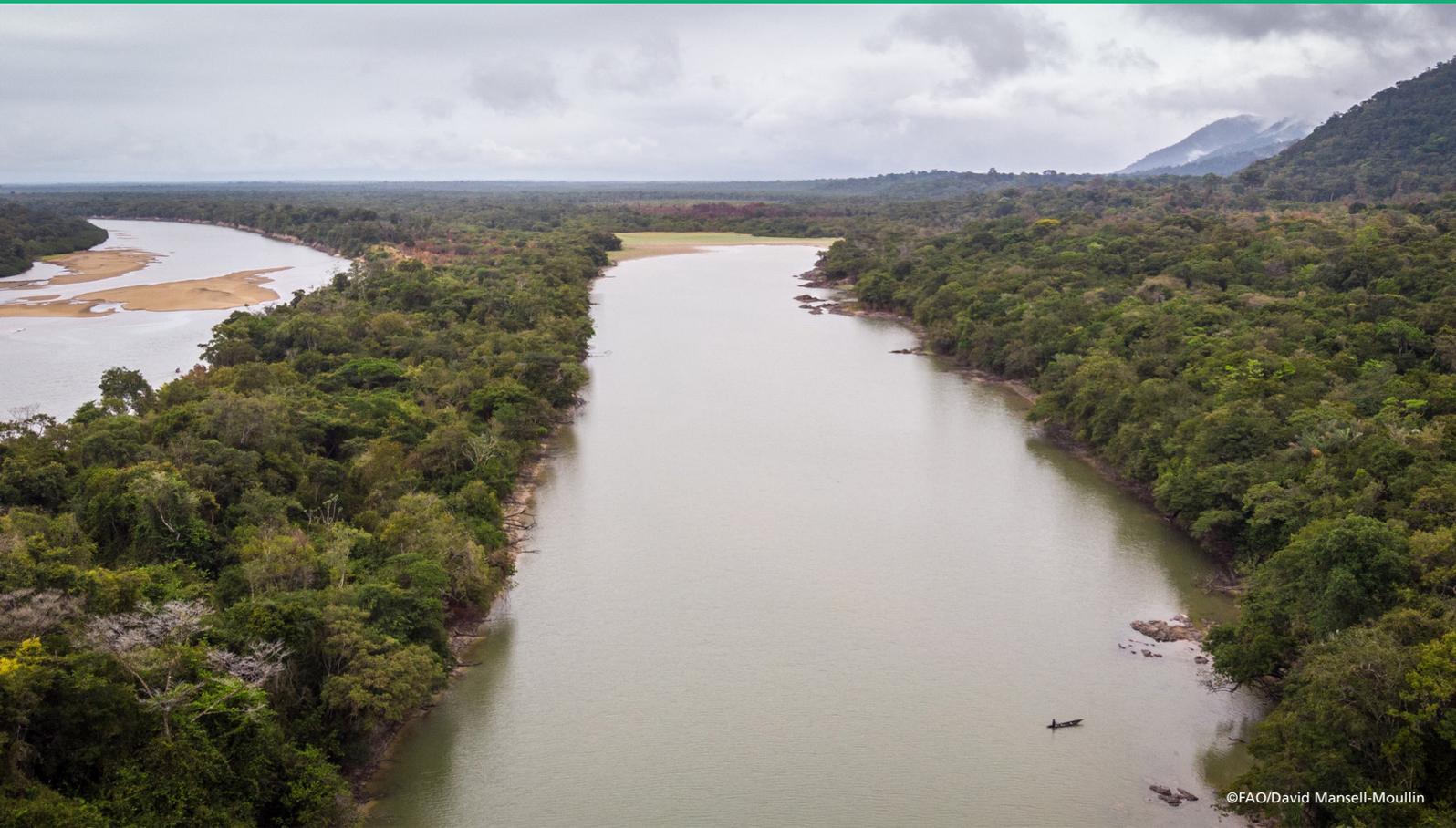


81% of the local shops sell fish products and most sell between **25 to 50 kg** of fish per month



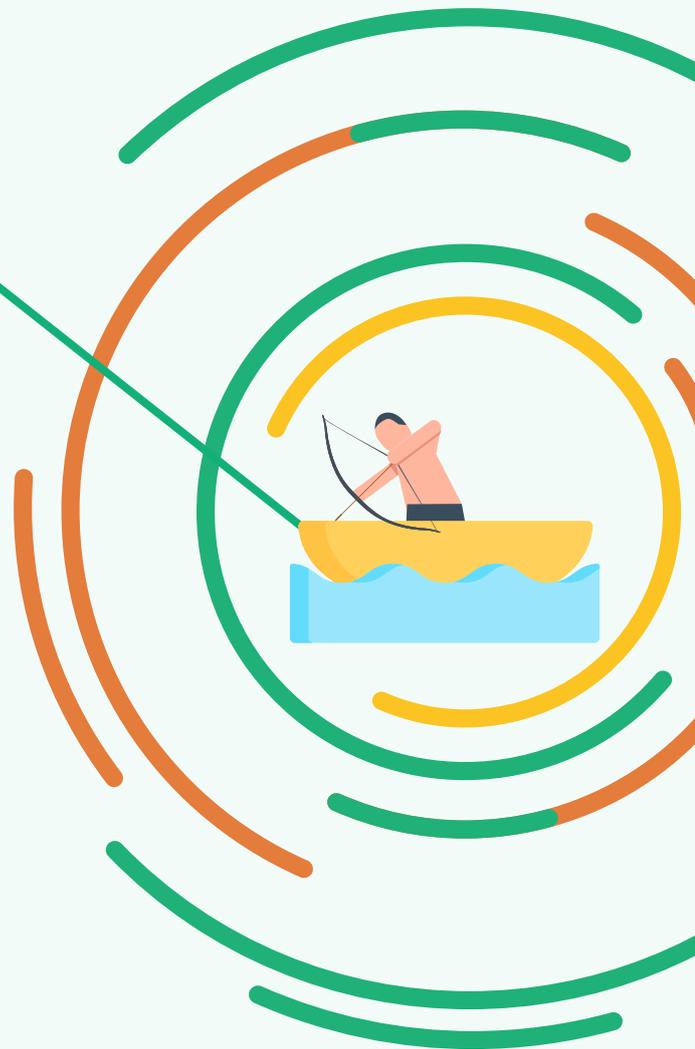
Fishers perceive a **decline** in arowana (*Osteoglossum bichirrossum*), lukanani (*Cichla ocellaris*), large cat fishes and aimara (*Hoplias aimara*) which are all often targeted for commercial purposes

Lukanani is by far the most commercialized species



70% of the fishers that were interviewed are aware of the NRDDDB management plan

Between 2019 and 2020, activities under the NRDDDB management plan focused on monitoring and awareness raising. A new set of simplified guidelines and protection measures will be discussed with all community members during a consultation planned in September/October 2021.





Way forward

Monitoring data collected in the first year of assessment already clearly point out the need for continuation of the commercial fishing activities' monitoring. Some species require particular attention (eg. lukanani, arapaima etc.). Sport fishing activities are also part of the monitoring plan and, as soon as COVID travel restrictions are lifted, this data will be considered.

For a management plan to be successful, guidelines and protection measures need to be developed in close consultation with community members and regularly updated based on the information generated through the monitoring system in place. Success is based on inclusiveness and cooperation. Ongoing advocacy is important for this.

At the time of writing, the National Inland Strategy for Fish and Aquaculture is being reviewed through a collaborative process facilitated by the Food and Agriculture Organization of the United Nations (FAO). In this context the NRDDB's Fisheries Management Plan could lay the groundwork for a pilot co-management structure, where NRDDB coordinates the fisheries team, community leaders help raise awareness and control, and the Fisheries Department contributes with enforcement.

For more information, email:
northdevboard@gmail.com



SWM SUSTAINABLE WILDLIFE MANAGEMENT PROGRAMME

©FAO/Barbara Frazer

www.swm-programme.info

Supported by



Funded by
the European Union

National partner

