

Stakeholders' contribution

to the national workshop on the sea cucumber fishery in Seychelles

Wednesday 12th September 2018 - ICCS Committee Room 1

1. Introduction

The “Support for adaptive co-management of sea cucumbers in the Seychelles” collaborative research project (SEACUSEY – <http://seacusey.ird.nc>) aimed at ensuring the sustainability of the sea cucumber fishery in Seychelles through adaptive co-management. We indeed needed to gain more information on the three main commercial species (pentard, white teatfish, and prickly redfish) such as abundance, diversity, and distribution, to implement appropriate management measures. The project launched a collaboration between the IRD, SFA, AMSSI, and SCHA from April 2017 to September 2018.

The aim of the national workshop was to present the findings of the project (cf. brochure) and to discuss the future implications for data collection and management of the fishery in Seychelles. A total of 40 participants attended the workshop, including members of the fishery sector, government staff, consultants, and local medias (cf. below).

The stakeholders' contribution is provided here below to provide guidance for future collaborative action.

2. Experimental survey and biological and genetic studies

Fishers enquired about the depth that the experimental survey was carried out. They also stated that the number of sea cucumbers caught during the survey will depend on the experience of the diver.

Some fishers commented that there are numerous difficulties when diving to look for sea cucumbers, such as underwater visibility, sea conditions not being ideal for diving, divers being too tired from doing too many dives per day, and divers' experience and professional ability.

They also enquired about whether we did any study to look at the conditions influencing size at maturity, e.g. temperature, spatial distribution etc and whether we looked at the patterns in reproduction. Stakeholders enquired about the time it takes for a sea cucumber to mature or how long it takes to grow.

Some stakeholders questioned the validity of the future assessments using fishing data by highlighting that catch will be influenced by the market value of the species and that divers will tend to select only the high value species.

3. Electronic logbook

Stakeholders stated that the paper logbook should also be used as a back up. They asked how frequently will the data be shared by the SFA with them.

They stated that there are not enough smartphones and expressed their concern that SFA will not be capturing all the data in its system unless the number of smartphones is increased.

They also stated that the paper logbook does not have a field to capture information on underwater visibility, which should be fixed given the experimental survey showed that this parameter was crucial.

They expressed that there is a need to have a follow up meeting with all skippers to show them how to use the app. They stated that SFA should make the training mandatory.

They enquired about how the data will be transmitted from the smartphones and asked if the smartphones will be kept with the skippers.

They enquired on how the phones will be charged as not all of the boats have an inverter.

They stated that skippers should have the options to purchase the smartphones.

Stakeholders raised the point that SFA enforcement officers have to carry out counts to see if the catches tally with what is recorded in the logbook. They enquired on how this will be carried out now since this information will not be available with the app. They enquired on how the total catch will be estimated after using the electronic logbook.

Stakeholders suggest that the license holders can be responsible for the smartphones.

4. General discussion

Stakeholders noted that catch decline since 2012 could be due to stock decline and/or to diver effects and/or management effects. For instance some fishers said that some divers being drug users may have lower ability to do the work. Others suggested that the decline can be due to the lower number of divers on the boat now. The number of divers per vessel is indeed restricted to four while up to six divers were allowed per vessel vessel in the past, which have negatively impacted their daily catch rate compared to previous years.

Stakeholders also questioned about the validity of the data collected over the last 20 years since some important parameters were not recorded (eg. underwater visibility), which would bias the use of catch per unit of effort (CPUE) as a indicator of resource abundance. They enquired about how we can estimate the CPUE of the non-targeted species when fishers are only focussing on the targeted species.

Fishers suggested that divers should carry depth loggers to improve the quality of the dive time and depth information. They suggested that SFA provide them with loggers for this purpose.

Fishers highlighted that pentard is an important species for Seychelles and should be managed properly. They made a demand to increase the quota for sanpye.

Stakeholders proposed that it would be a good idea to provide cameras to divers so that we can observe the habitats of the species.

5. Continuation of research

Stakeholders expressed their thanks and appreciation for the research work that was undertaken during the project. They expressed the need for continuation of the research work as 18 months is quite short to carry out a comprehensive study on the sea cucumber fishery.

They suggested that there is a need for further research to improve the results. They encouraged SFA and divers to come to observe the professional divers while they work.

They proposed that SFA should provide an incentive for fishers to participate in research work.

They suggested that SFA should carry out research on other species that are not currently targeted in the fishery as they may constitute an economic potential if restrictions on current target species apply.

Organization	Name	Designation/Section	Mode of contact
Member of National Assembly (MNA)	TBC		Individual email to clerk
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The Blue Economy Department	Rose-Marie Bargain	Principal Secretary	Individual email
The Blue Economy Department	TBC		Individual email same as that to PS requesting for a second participant
Ministry of Environment	Alain DeCommarmond	Principal Secretary	Individual email
Ministry of Environment	TBC		Individual email same as that to PS requesting for a second participant
Ministry of Fisheries and Agriculture	Jude Talma	Principal Secretary	Individual email
Ministry of Fisheries and Agriculture	TBC		Individual email same as that to PS requesting for a second participant
IRD	Marc Leopold		Individual email
Institut Halieutique et des Sciences Marines (IH.SM), University of Toliara	Gasimandova Lahitsiresy Max	Student	Individual email
Consultant	Ameer Ebrahim	SEACUSEY Project Officer	Individual email
SFA	Ronny Renaud	CEO	Bulk email
SFA	Calvin Gerry	Deputy CEO	Bulk email
SFA	Vincent Lucas	Chief Fisheries Officer	Bulk email
SFA	Rodney Govinden	Chief Fisheries Scientist	Bulk email
SFA	Johnny Louys	Manager, MCS	Bulk email
SFA	Sonny Naiken	Principal Enforcement officer	Bulk email
SFA	Marie Antoinette Saminadin	MCS section	Bulk email
SFA	Antoinette Marie-Therese		Bulk email
SFA	Clara Belmont	Senior Research Technician	Bulk email
SFA	Stephanie Marie	Research Technician	Bulk email
SFA	Fred Mondon	Skipper	Bulk email
SFA	Slim Dogley/Annisha Victor	IT Division	Bulk email
SFA	Andrew Souffre	Fisheries Scientist	Bulk email

SFA	Krystel D'offay	Fisheries Scientist	Bulk email
Sea Cucumber Harvesting Association (SCHA)	Marcus Quatre	Chairman	Call
Sea Cucumber Harvesting Association (SCHA)	TBC		Marcus to confirm and contact
Association of Members of Seychelles Sea Cucumber Industry (AMSSI)	Paul Morin	Chairman	Individual email plus call
Association of Members of Seychelles Sea Cucumber Industry (AMSSI)	TBC		Mr. Morin to confirm and contact them
Association of Members of Seychelles Sea Cucumber Industry (AMSSI)	TBC		Mr. Morin to confirm and contact them
IOC representative	Said Ahamada		Individual email
IOC representative	Francisco RAMIREZ-VASCO		Individual email
IOC representative	Begum Nageon de Lestang		Individual email
Skippers (10)			Marcus Quatre to inform them/ SFA contacts them
Fishers (10)			Marcus Quatre to inform them
Processors (4)			Mr. Morin to contact them
UNISEY-BERI representative	TBC		Individual email
ICS representative	TBC		Individual email
MCSS representative	TBC		Individual email
SIF representative	TBC		Individual email
Today Newspaper			Bulk email to media plus call
Nation			Bulk email to media plus call
SBC			Bulk email to media plus call
Tele Sesel			Bulk email to media plus call



National Assembly of Seychelles

Unity in Diversity



Sea cucumber stock under the microscope

14-September-2018



The workshop in progress



Research has shown that sea cucumber in Seychelles is on the decrease.

This came out through a workshop to present the findings of a project on the species organised by the Seychelles Fishing Authority (SFA).

The one-day workshop, held on Wednesday at the International Conference Centre (ICCS), was attended by skippers, fishermen, divers, boat owners, processing operators and other key stakeholders.

Apart from presenting the findings of the SEACUSEY project, the other aim of the workshop was to also get suggestions for future research and future fishing of sea cucumber for 2018-2019.

The research to ensure the sustainability of the economic sector related to sea cucumber resources through adaptive co-management was carried out on the Mahé plateau and Amirantes region during the past eighteen months.

The specific aim of the SEACUSEY project, carried out by the SFA in collaboration with the sea cucumber fishermen, operators and also with the participation of French research partners, L'Université de La Réunion, L'Institut de Recherche pour le Développement, France, was to define and implement operational management measures that are adapted to the diversity, genetic structure, abundance, distribution and evolution of stocks of the three main commercial species found in Seychelles waters - White Teat fish (*kokosye blan*), Prickly Red fish (*sanpye*) and White Flower Teat fish (*pentard*) which is one of the most commonly found in abundance and mostly fished.

A fourth species, the Black Teat fish (*kokosye nwan*) has been banned from harvesting for the time being in Seychelles as the stock has seen a significant decrease throughout the years. Since the 1990s, most sea cucumber stocks have been over-exploited worldwide and are in sharp decline, something which has prompted local authorities to take stock of the sustainability of this fishery here.

The research showed that there is a single stock per species throughout Seychelles.

According to the deputy chief executive of SFA, Calvin Gerry, to help in maintaining the sustainability of the stock, a set limit on the number of sea cucumbers allowed to be harvested from the three main commercial species was introduced this year, along with a reduction in the opening season of the fishing period.

So as of January 2018, the total allowable catch stands at 375,000 units. Flower Teat fish's quota is 281,250 units, White Teat fish 56,250 units and Prickly Red fish 37,500 units. This will be divided among the 24 local licensed fishing boats. The opening season starts from October and ends in May as compared to in the past which was from October to June. The total allowable catch will be reviewed after three years or after three consecutive opening seasons.

Apart from Mr Gerry, other facilitators of the workshop included SFA's project officer Ameer Ebrahim, project coordinator Marc Leopold and head of research Rodney Govinden.

Most stakeholders engaged in sea cucumber harvesting agreed with maintaining control of the stocks but argued that more research needs to be done to determine the real stock situation as they believe the eighteen months are not enough.

During the workshop it was agreed that research for the sustainability of the stocks is an ongoing process.

The research findings and proposals from Wednesday's workshop were expected to be put forward to the Fishing Management Advisory Committee yesterday to determine quota allocations and period of harvest for sea cucumber harvest for next month.

