

JICA activities towards FAD Co-management

Mitsuhiro Ishida

9th December 2013

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- 1, FAD Co-management now
(in case of St. Kitts and Nevis and Antigua and Barbuda) Tomorrow session
- 2, “Fish In Ice” program (Ice box building on small vessel)
- 3, Fisheries Census 2012 in St. Lucia
- 4, Enhancement of Fisher and Vessel registration
- 5, Standardized CPUE
- 6, Market research and Fish Outlets Program

2, “Fish **In** Ice”
program
(Ice box building on
small vessel)



Roseau, Dominica



V.F. St. Lucia

39°C—40°C



V. F. at SLU, 39-40°C





From
the People of Japan

Project “Fish In Ice”

Illustrated Manual
on
Ice Box Construction on Fishing Vessel



Fisher Voice! Castries, St. Lucia



Please use ice and ice box!

St. Kitts fisher



St. Kitts Basseterre F. C.



“Fish In Ice” program

Conclusion 2:

When people die, please give flowers.

When fish die, please give ICE!

COLD CHAIN



3, Fisheries Census 2012 in St. Lucia

Census of the Fisheries Sector in Saint Lucia 2012

Analytical Report



A publication prepared for the Department of Fisheries, Ministry of Agriculture, Food Production, Fisheries and Rural Development, with support from the Japan International Cooperation Agency (JICA).

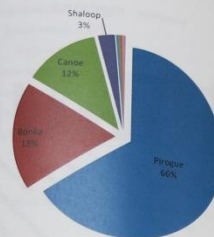


Figure 12 Proportion of boats involved in the fisheries sector by type

The majority of people who own a fishing boat whether jointly or solely have only one fishing boat (80%) and the majority (79 percent) of these fishing boats are solely owned. There are 5 people who own 3 fishing boats each. They are from the communities of Vieux Fort, Choiseul and Canaries. Vieux Fort has one (1) person who solely owns 4 fishing boats and Gros Islet has a one joint owner of fishing vessels (Figure 13).

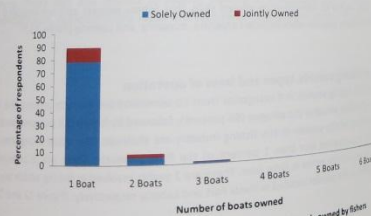


Figure 13 Fishing vessel ownership status and number of vessels owned by fisher

the largest total proportion (23 percent) of fishing boats operates out of the district of Vieux Fort, while the district of Laborie has the smallest proportion (5 percent) of fishing boats (Figure 14). Although the census was conducted in 10 administrative districts, there is more than one fishing operation base in a district. Fifteen different fishing operation bases were reported. (Table A20 and D8d).

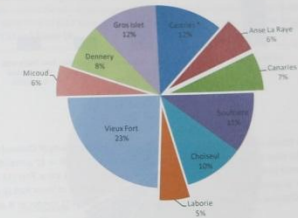


Figure 14 Distribution of total fishing vessels according to administrative districts

Vieux Fort recorded the largest number of progues and bonkas. The majority of canoes operate out of Canaries (29 percent) followed by Soufriere (20 percent). The majority of shallops operate out of the district of Soufriere (82 percent). Progues are the predominant fishing vessels which operate out of each district except for Canaries with 48 percent of the fishing fleet being progues, whilst 52 percent are canoes (Table A20).

1.13 Sales and marketing of fish

A total of 394 people vend fish. The majority of fish vendors (64 percent) are fishers who also sell the fish that are captured by them. A total of 19 percent of the vendors are also boat owners who sell fish (Figure 15).

What we have got from Census.

- 2502 fishers registered as of December 31, 2011
- only 1150 individuals
- The number of **active** fishers and **active** vessels is MOST important for stock assessment and day-to-day fisheries management. If you don't know the number of active vessels then you can't workout actual fishing effort...**registered vessels is only an indicator** of potential fishing effort.
- Without this info all the stock assessment done by CRFM is erroneous. We need to get the basic steps right.

AFTER Dominica F. Census 2008 and 2011

- What is going on now?
- Let's look at current Dominica FD activities toward Active Information

4, Enhancement of Fisher and Vessel registration an Essential tool Fish IC card



Dominica FD almost reaching to get day-to day
Active Fisher and vessel registration.

T. Miyahara, T. Matsuura, D. Theophille, etc

Only ID card can be printed
after all data set

Fisherman Registration Card

Registration Number
00000000 RS
Code

Date of Issue 7/19/2222 **Expiration Date** 7/18/2223

Boat Registration Number
J7-001-TST

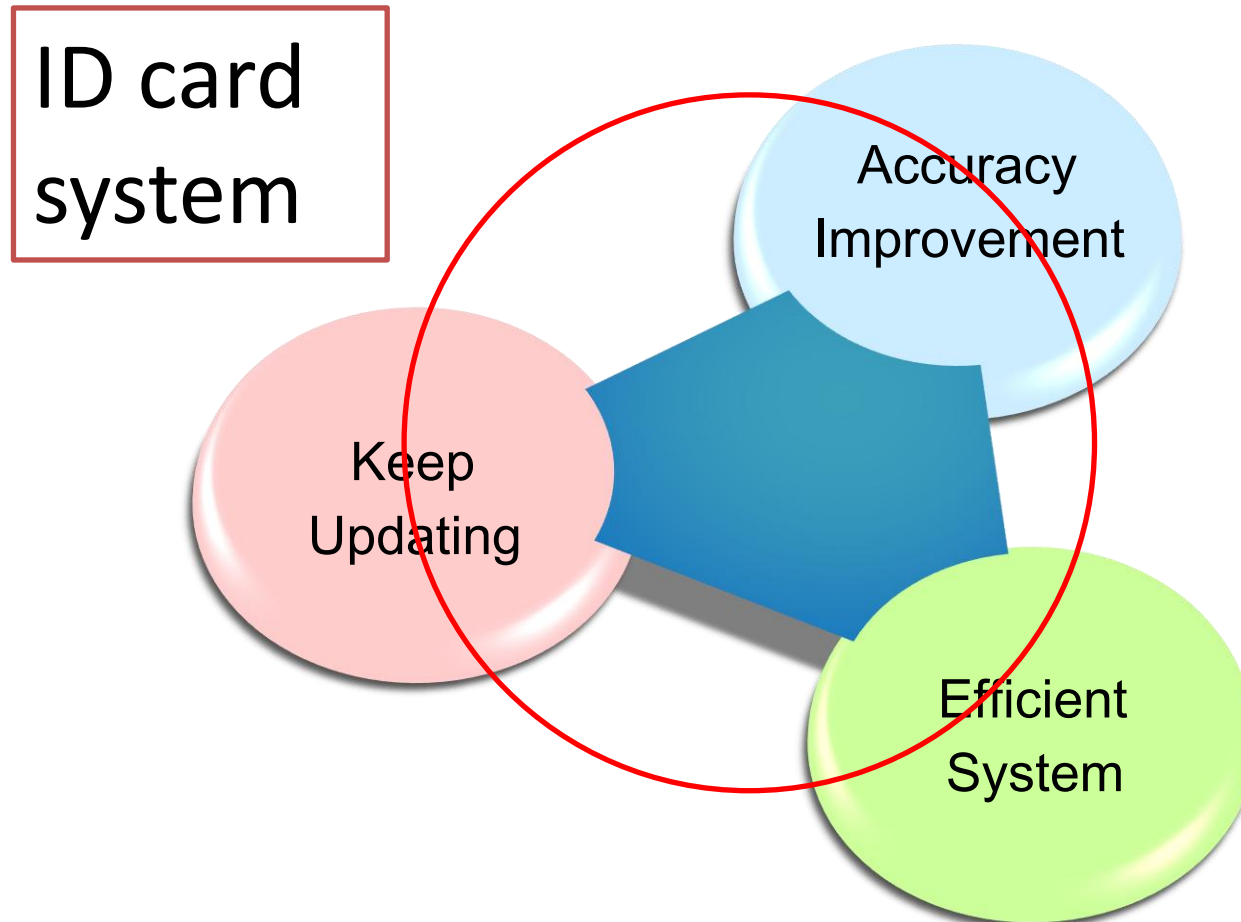
Name: T'rel xZeian
Address: Dominica,
Nationality: Dominican
Date of Birth 12/10/2200

Boat Image

Authorized Signature **Signature of Cardholder**

QR Code

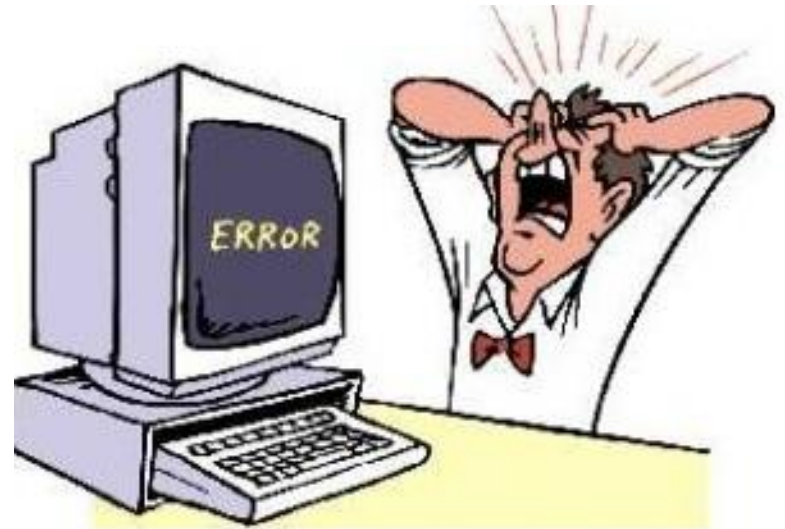
Essential tool improves the statistic



How to improve and Why Capturing **Active Boat** Info?

- To estimate total landings at the site.









⇒ Capturing **active boat** info is crucial.



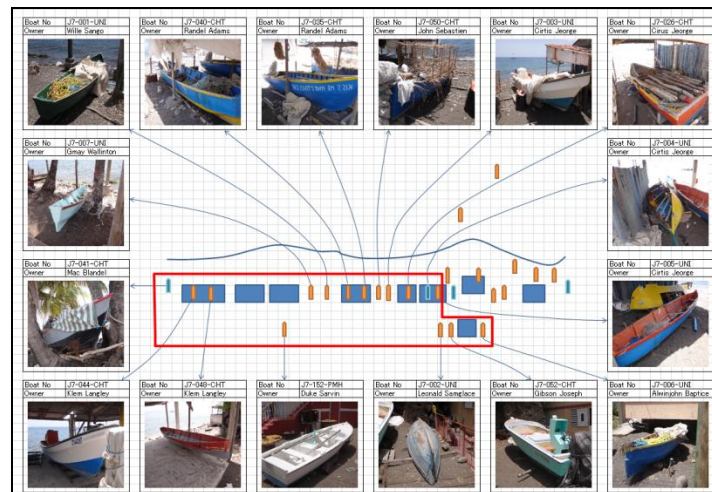
e.g. Essentials tools

Boat owners **list** and **map**

- Boats and boat owners **list**

Boat Registration List			
ScottsHead			
J7-001-SHD FAD,Line		 Obango Ceasar	J7-011-UNI  Jepherson Jervier
J7-002-SHD Full Time FAD,Pot,Gill		 Francis Nicholas	J7-012-SHD Pot  Clement Nicholas
J7-002-UNI Beach		Nicolas David	J7-012-UNI  Clement Nicholas

- Boats **map**



Boat Registration List

ScottsHead

J7-001-SHD



FAD,Line



Obango Ceasar

J7-011-UNI



J7-002-SHD



Full Time

FAD,Pot,Gill



Francis Nicholas

J7-012-SHD



Pot

J7-002-UNI



Beach

Nicolas David

J7-012-UNI



Boat No J7-001-UNI
Owner Wille Sango



Boat No J7-040-CHT
Owner Randel Adams



Boat No J7-035-CHT
Owner Randel Adams



Boat No J7-050-CHT
Owner John Sebastian



Boat No J7-003-UNI
Owner Curtis Jeorge



Boat No J7-026-CHT
Owner Curtis Jeorge



Boat No J7-007-UNI
Owner Gmay Wallinton



Boat No J7-004-UNI
Owner Curtis Jeorge



Boat No J7-041-CHT
Owner Mac Blandel



Boat No J7-005-UNI
Owner Curtis Jeorge



Boat No J7-044-CHT
Owner Klem Langley



Boat No J7-048-CHT
Owner Klem Langley



Boat No J7-152-PMH
Owner Duke Sarvin



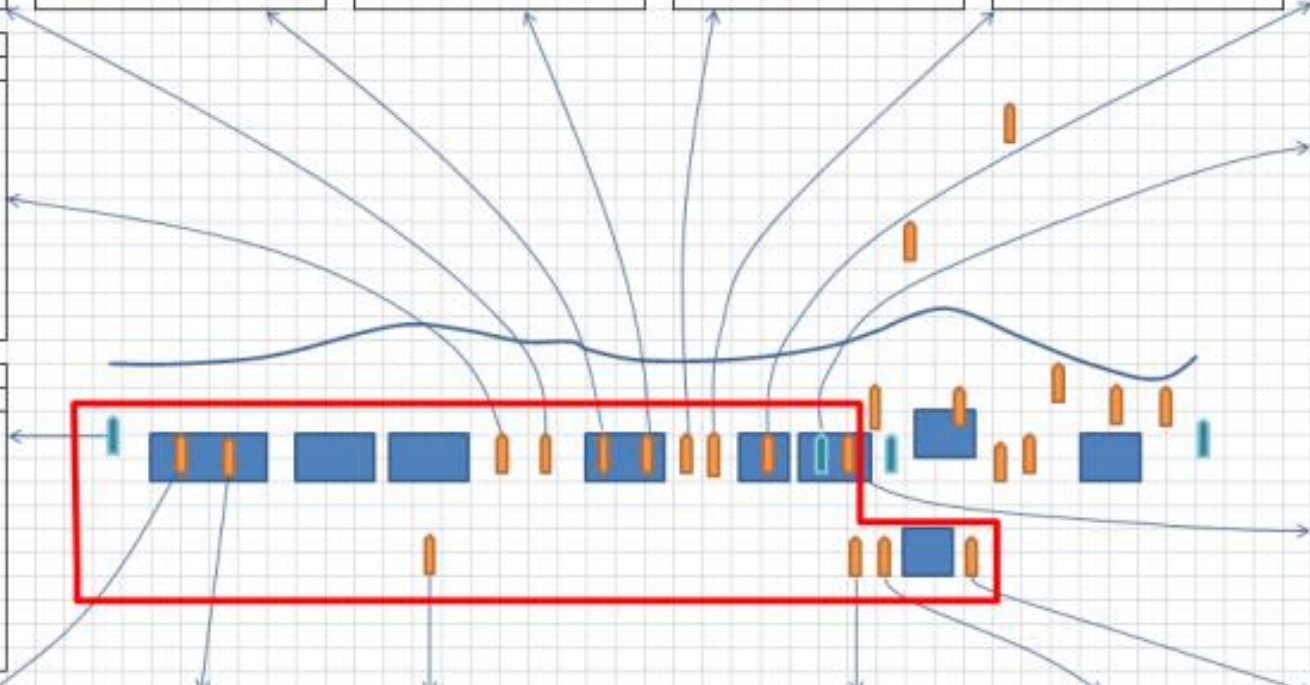
Boat No J7-002-UNI
Owner Leonard Samplace



Boat No J7-052-CHT
Owner Gibson Joseph



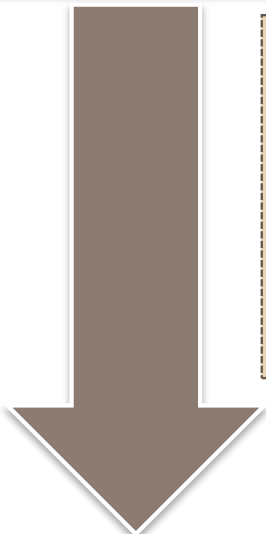
Boat No J7-006-UNI
Owner Alwinjohn Baptice



Purposes of the Boat owners list and map

1. Updating the Boat Registration Data
2. Making Data Collectors work easier
3. Making Daily Fish C&E Data better

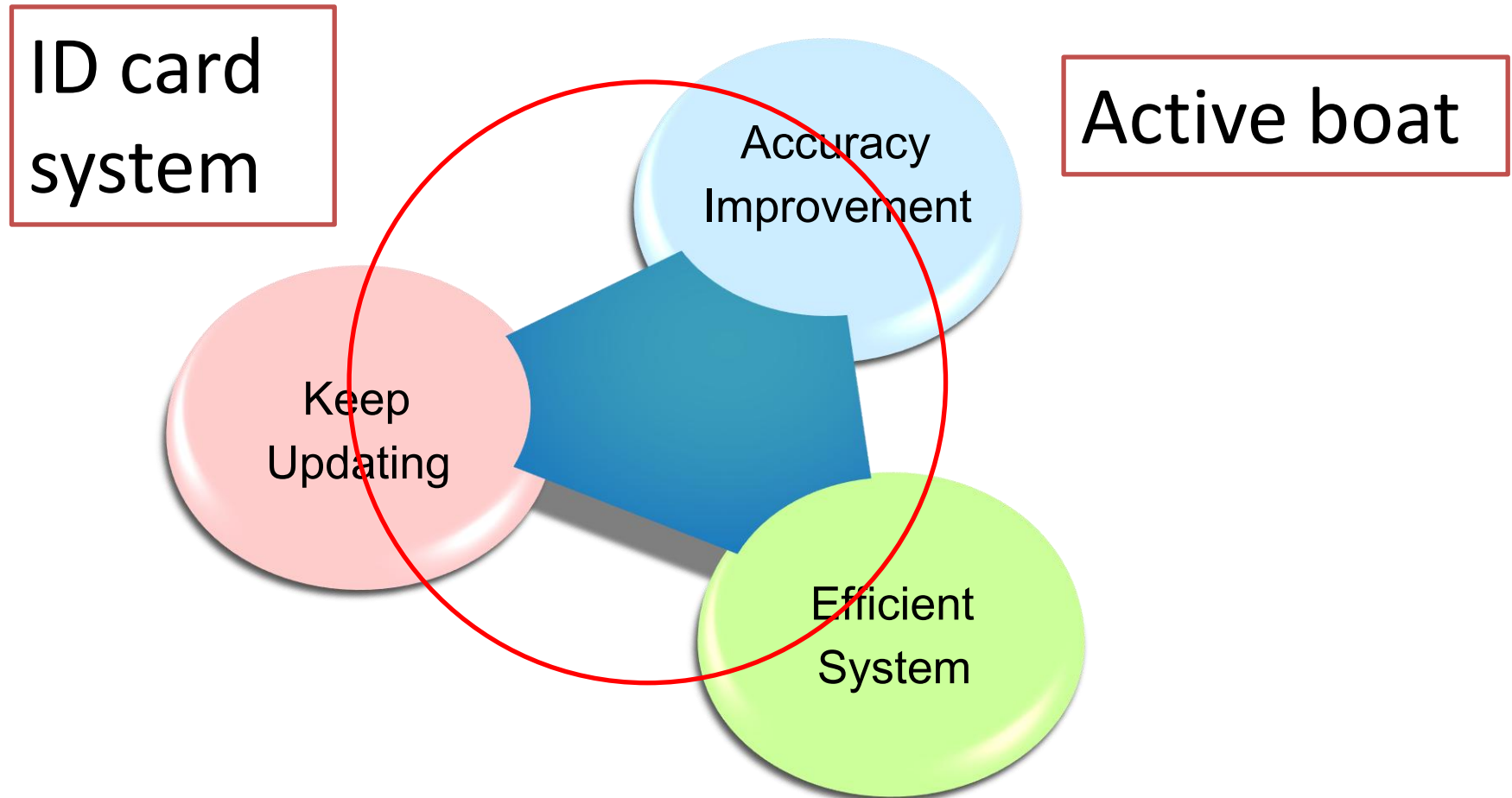
Sampled Fish Catch Data



Raising Factor

$$\frac{\text{No. of Total Landed Boat}}{\text{No. of Sampled Boat}}$$

Essentials tools improve the statistic

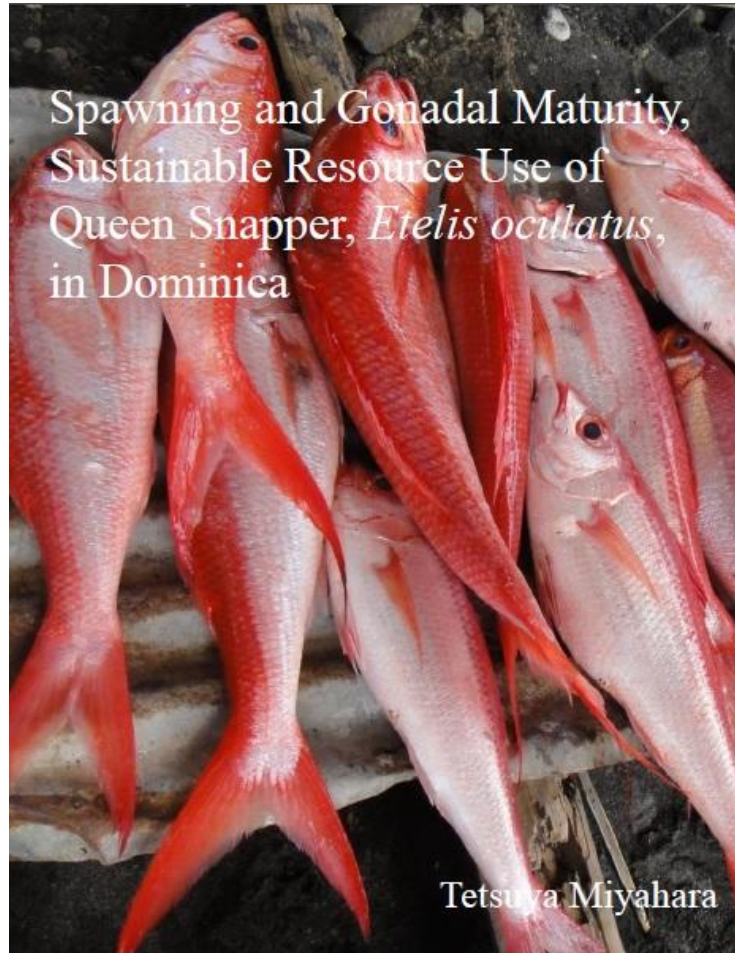


Fisheries Census 2012 in St. Lucia &
Enhancement of Fisher and Vessel registration in Dominica

Conclusion 3 & 4 : After the Census

- Next step (St. Lucia)-----Active boat
- The number of active fishers and active vessels is MOST important for stock assessment and day-to-day fisheries management. If you don't know the number of active vessels then you can't workout actual fishing effort...registered vessels is only an indicator of potential fishing effort.

5, Standardized CPUE



Tetsuya
Miyahara,
JOCV

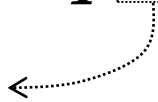
What is CPUE ?

The more Fish Resources(N) and Effort(E),
The more fish Catch(C) you get.

$$C = q E N$$

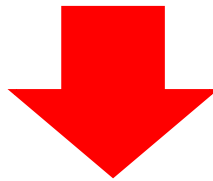
CPUE is the index of abundance

Therefore CPUE $\left(\frac{\text{catch}}{\text{effort}}\right)$ has a proportional relation with fish resources.

$$\text{CPUE} = \frac{C}{E} = q \square N$$


Ok, So...What is q ?

$$\text{CPUE} = \frac{C}{E} = qN$$



Fishing result is changed by

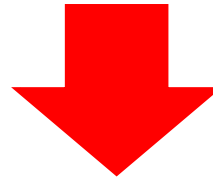
- Fishing area (q_a)
- Fishing gear (q_g)
- Fishing season (q_s)
- Moon phase (q_m)

etc.

How can we handle them??

$$\text{CPUE} = q \underbrace{q_a q_g q_s q_m}_{\text{Remove these effects}} N$$

Remove these effects



Standardized CPUE

Standardized CPUE

- More accurate than Nominal CPUE
- Shows the status of resource

Queen snapper Resource Assessment

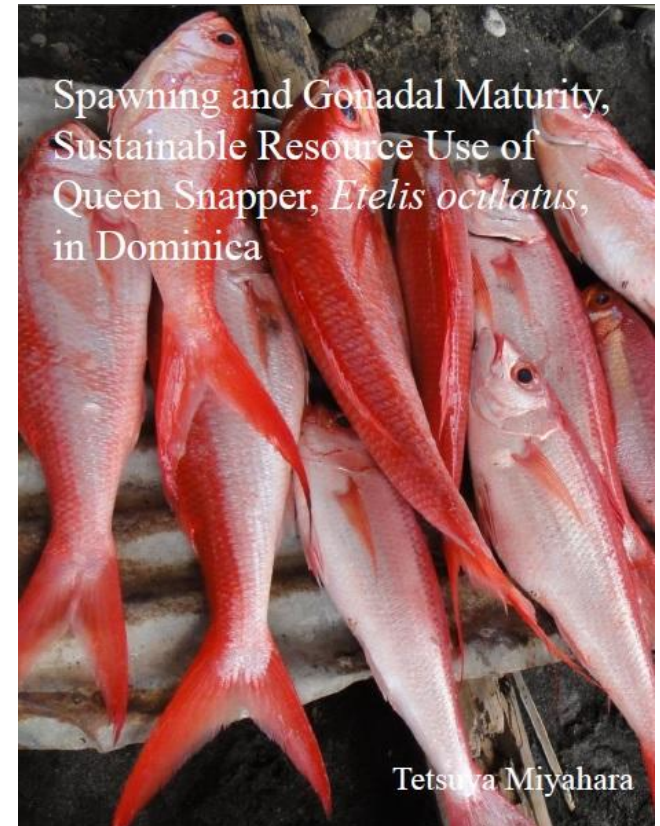
Conclusion 5:

Conclusion from paper by Tetsuya

- 1, Possible closed season
- 2, CPUE----R. Assessment

Conclusion from this presentation

- 3, Use of Data collected



6, Market research and Fish Outlets Program



M. Ishida, Y. kakushita (JOCV),
C. Stoute, N. Norris. etc

Questionnaires

- 54 questions, 5 sections
 1. Pattern of eating fish
 2. Preference for current markets
 3. Preference for a new shop
 4. Market preference about other products
 5. Personal information

2. Preference for current markets

Q9. Have you ever purchased fish (fish product) at _____?

- | | |
|-------------------------------|----------|
| 1. Roseau fish market /vender | ①Yes ②No |
| 2. Landing site | ①Yes ②No |
| 3. Supermarket | ①Yes ②No |
| 4. Mobile vender | ①Yes ②No |

ACCESSABILITY

Q10. Do you think _____ is easy to visit to buy fish?

- | | Yes | No preference | No |
|-------------------------------|--|---------------|----|
| 1. Roseau fish market /vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | | |
| 2. Landing site | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | | |
| 3. Supermarket | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | | |
| 4. Mobile vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | | |

Q11. Do you think _____ is open when you want to buy fish?

- | | |
|-------------------------------|--|
| 1. Roseau fish market /vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 2. Landing site | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 3. Supermarket | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 4. Mobile vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |

QUALITY

Q12. Do you think that fish at _____ is fresh?

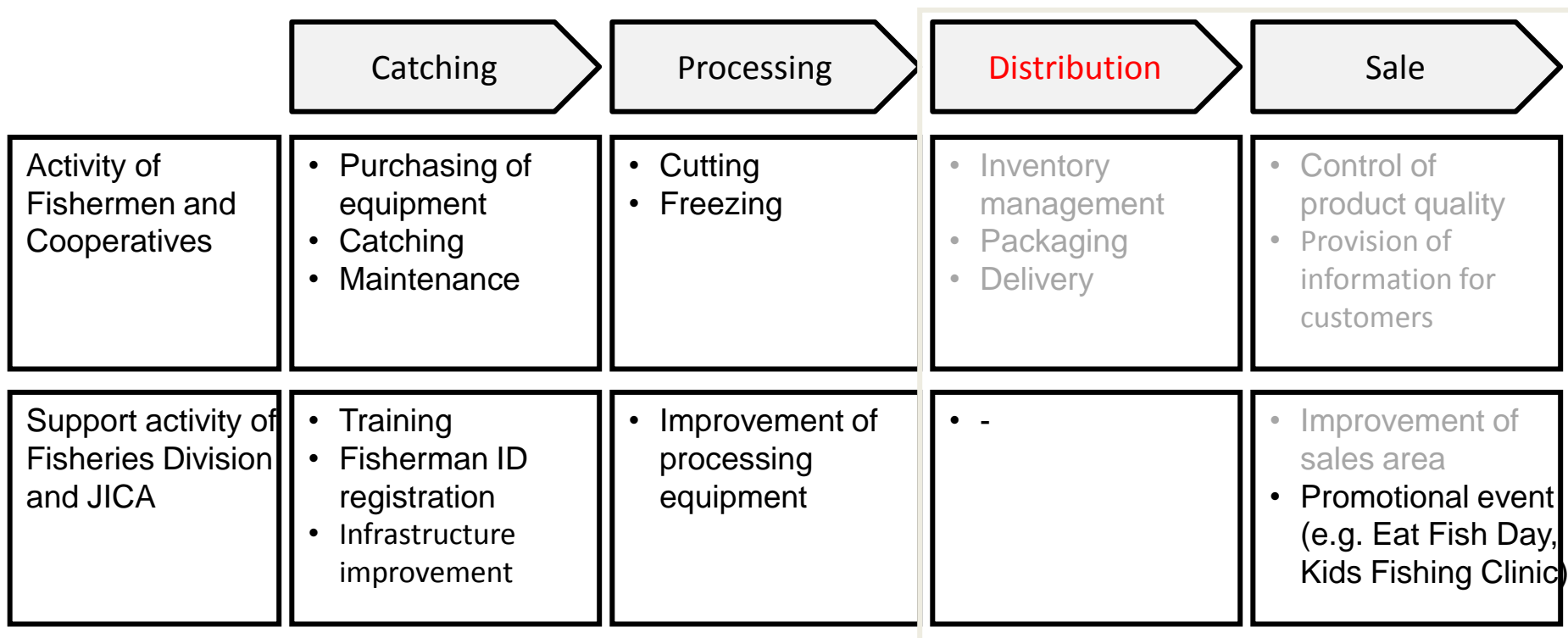
- | | |
|-------------------------------|--|
| 1. Roseau fish market /vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 2. Landing site | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 3. Supermarket | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |
| 4. Mobile vender | 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> |

Survey Area

- 3 categories, 6 areas
 - A) Roseau
 - B) 3 Landing sites
 - C) 2 Areas far from landing sites

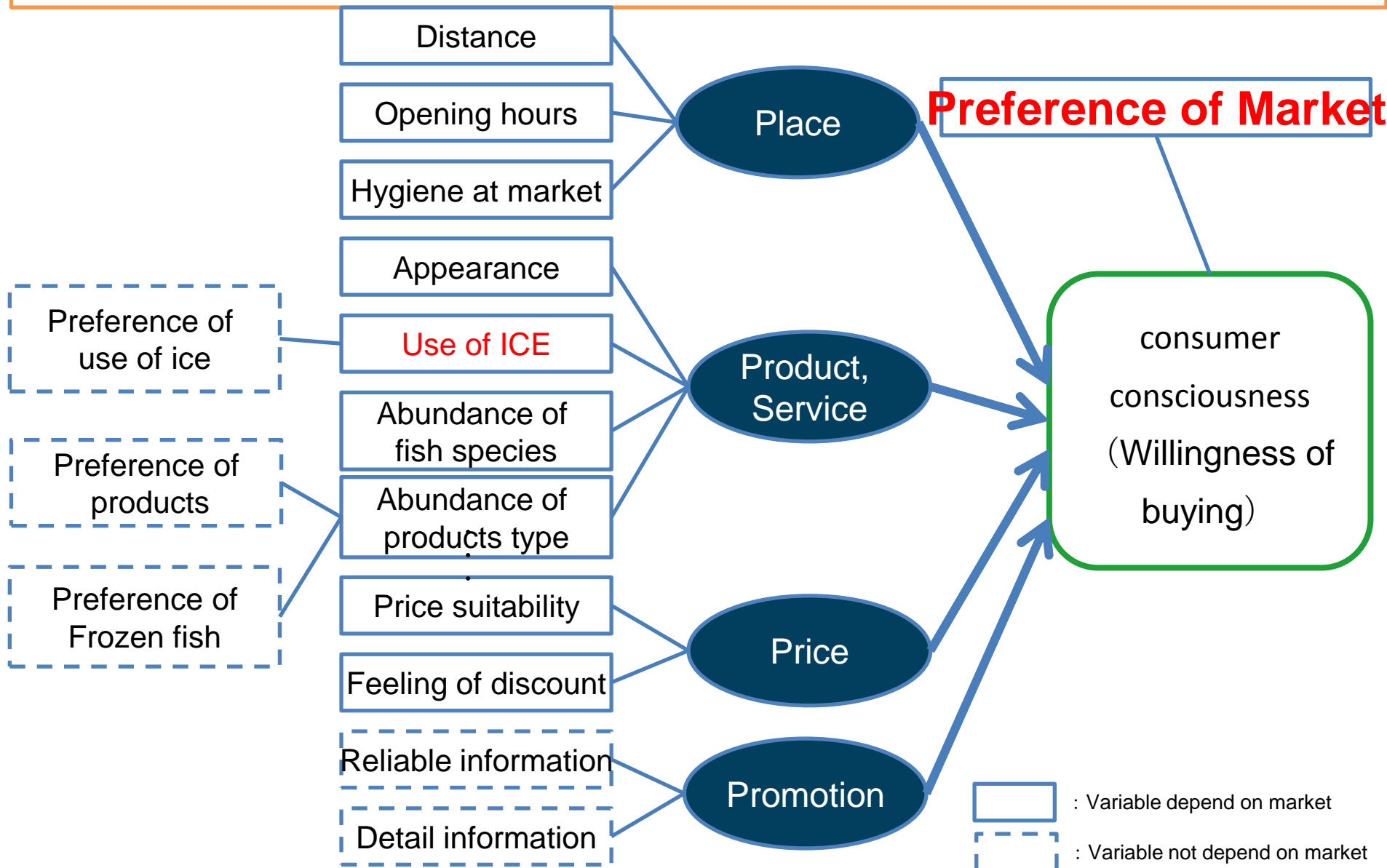


Enhancement of **Distribution process** for the accessibility, availability and affordability of fish.



Market Research
Fish Queen Contest

Activity on the clarification of the consumer consciousness depend on MARKET or FISH PRODUCTS



Fish Queen Contest (held 5th Dec 2013)

Click here to enter <http://bit.ly/17VKK7J>



いいね! · コメントする · シェア 6

Norman Norrisさん、Tomoyuki Iseさん、他13人が「いいね!」をしています。

コメントする...

Dominica Fish Queen Contest Voting begins November 24th
いいね! · 返信 · 11月23日 17:23

753人がこの投稿を見ました 投稿を広める



Fish Queen Contest
Help Decide Who is the Fish Queen
Vote from November 24th



Dominica Fish Queen Contest
いいね! 360人 · 話題にしている人29人

ページ情報を更新 ✓ 「いいね!」しています メッセージ ✱

コミュニティ
This page is about "Fish Queen Contest" held in December 2013 in commonwealth of Dominica▼

基本データ

写真 Fish Queen Photo Co... いいね!

360

DOMINICA Fisheries Division

Market research and Fish Outlets Program

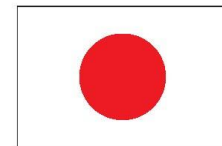
Conclusion 6:

- If you want to increase amount to sell, one solution is suggested **enhancement of Accessibility** by the research.



Conclusion

- 2, “Fish In Ice” program, please give ICE
- 3 & 4, Fisheries Census, ID card, Fisher Vessel registration,,, day to day
- 5, Standardized CPUE
- 6, Marketing,,, Enhancement of Accessibility



From
the People of Japan

CARIFICO

Caribbean Fisheries Co-management Project

Enhancing of the partnership among fisher and countries through FADs (Fish Aggregating Devices) co-management in six OECS countries, to promote sustainable use of fisheries and aquaculture resources by development, management and conservation of these resources in collaboration with stakeholders to benefit the people of the Caribbean region.



Japan International Cooperation Agency, CRFM Secretariat
Third Floor, Corea's Building
Halifax & Hillsborough Streets
Kingstown
St. Vincent & the Grenadines
Tel: (784) 457-3474
Fax: (784) 457-3475
Email: cfusvg@vincysurf.com



1, FAD
Co-management
now

in case of

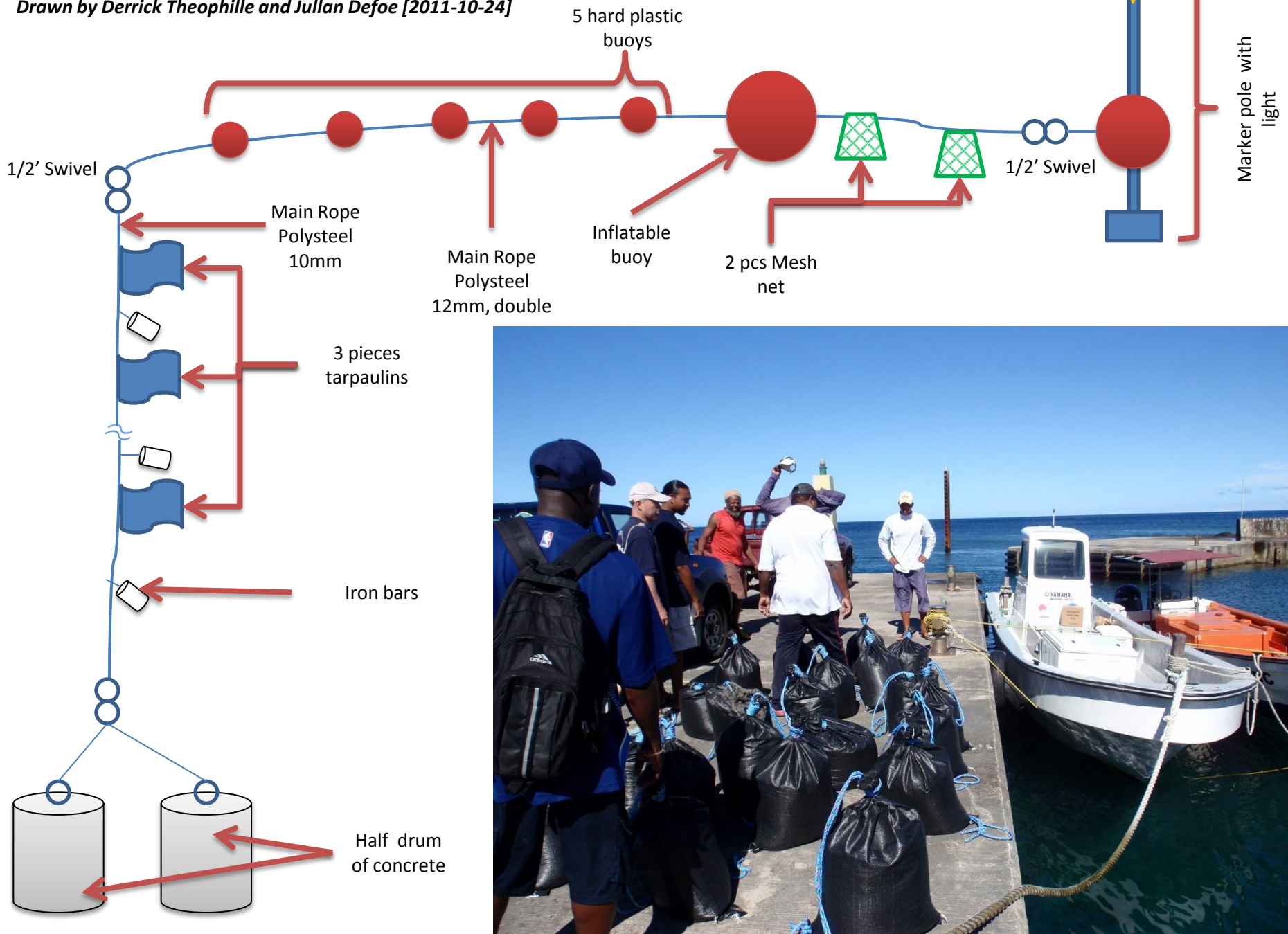
St. Kitts and Nevis
and
Antigua and Barbuda



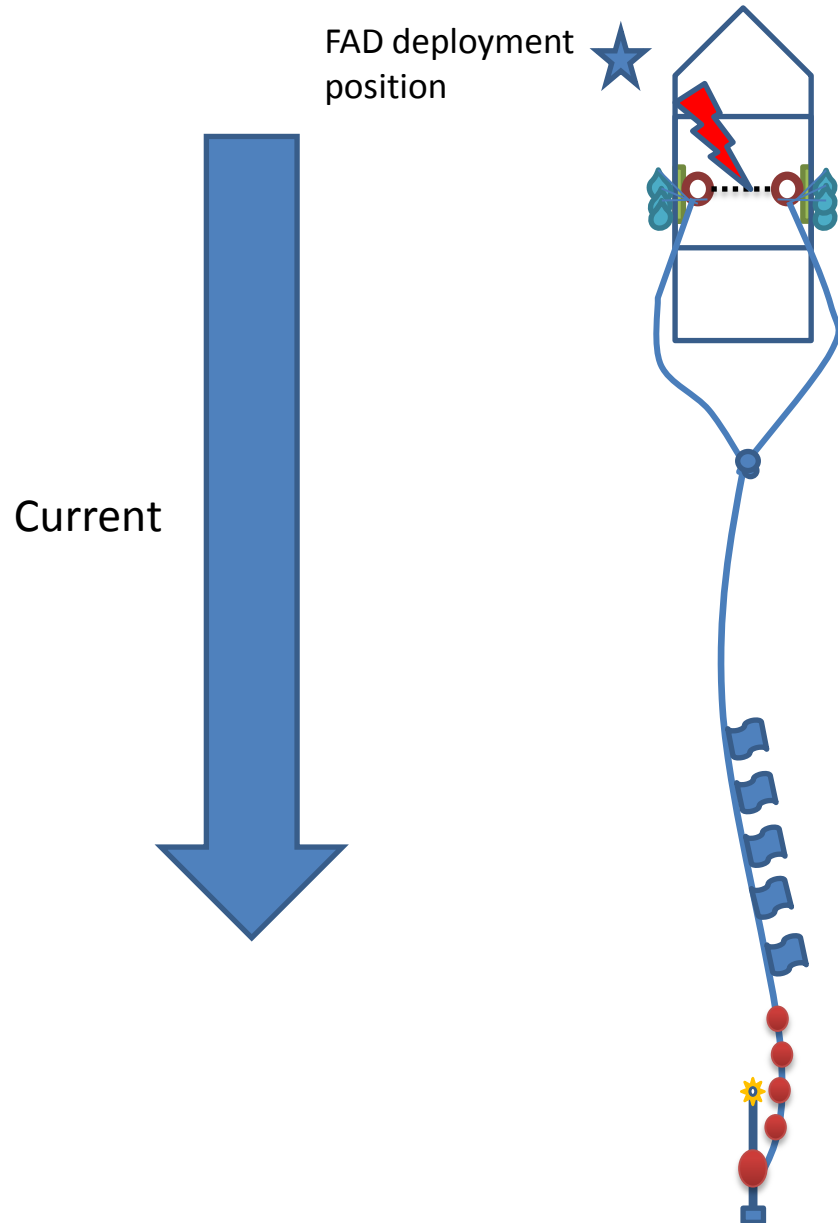
SKN FAD DLine 112.MP4

SKN & AB FADs design

Drawn by Derrick Theophille and Jullan Defoe [2011-10-24]

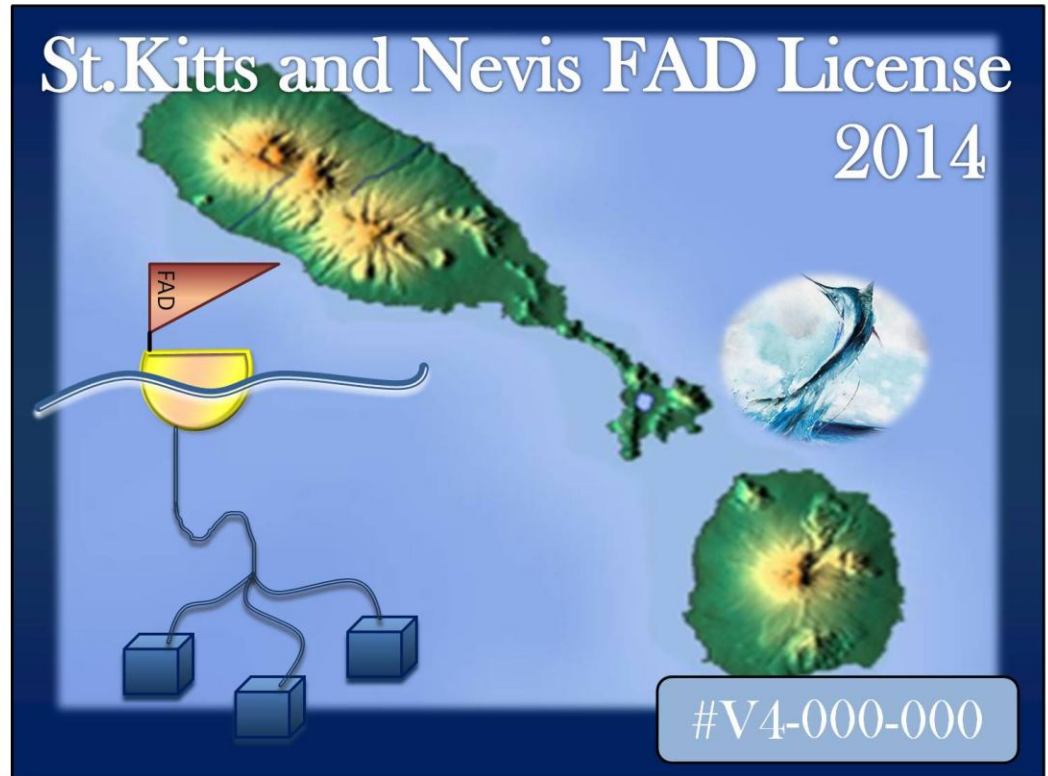


Use of Sand Bags



St. Kitts and Nevis

- 500XCD
 - 1000XCD, 2000XCD
 - Amendment
 - FAD license sticker
-
- Three FADs set, Oct.
 - Two FADs set, Nov.



Antigua and Barbuda

- Three FADs in water
- Other FADs are being set now.
- Guadeloupe ? illegal FADs



FAD Co-management now

Conclusion 1:

CARIFICO can help
your activities and initiative

Technically and financially..

Conclusion

- 1, FAD Co-management and CARIFICO: **you** are the key person.
- 2, “Fish In Ice” program, please give **ICE**
- 3 & 4, Fisheries Census, ID card, Fisher Vessel registration,,, **day to day**
- 5, **Standardized CPUE**
- 6, Marketing,,, **Enhancement of Accessibility**