

Stewardship in small-scale fisheries: a global overview

Tara Whitty, Delphine Rocklin and Mel Agapito

TBTI Webinar # 7

August 1st, 2016

Too Big To Ignore (TBTI) global partnership aims to

- Elevate the profile of SSF;
- Argue against their marginalization in national and international policies; and
- Develop research to address global food security and sustainability challenges in fisheries policy.

Majority of the world fisheries are small-scale, contributing to food security, poverty alleviation, livelihoods, and are of cultural and traditional importance to millions of people.

Major concerns in global fisheries

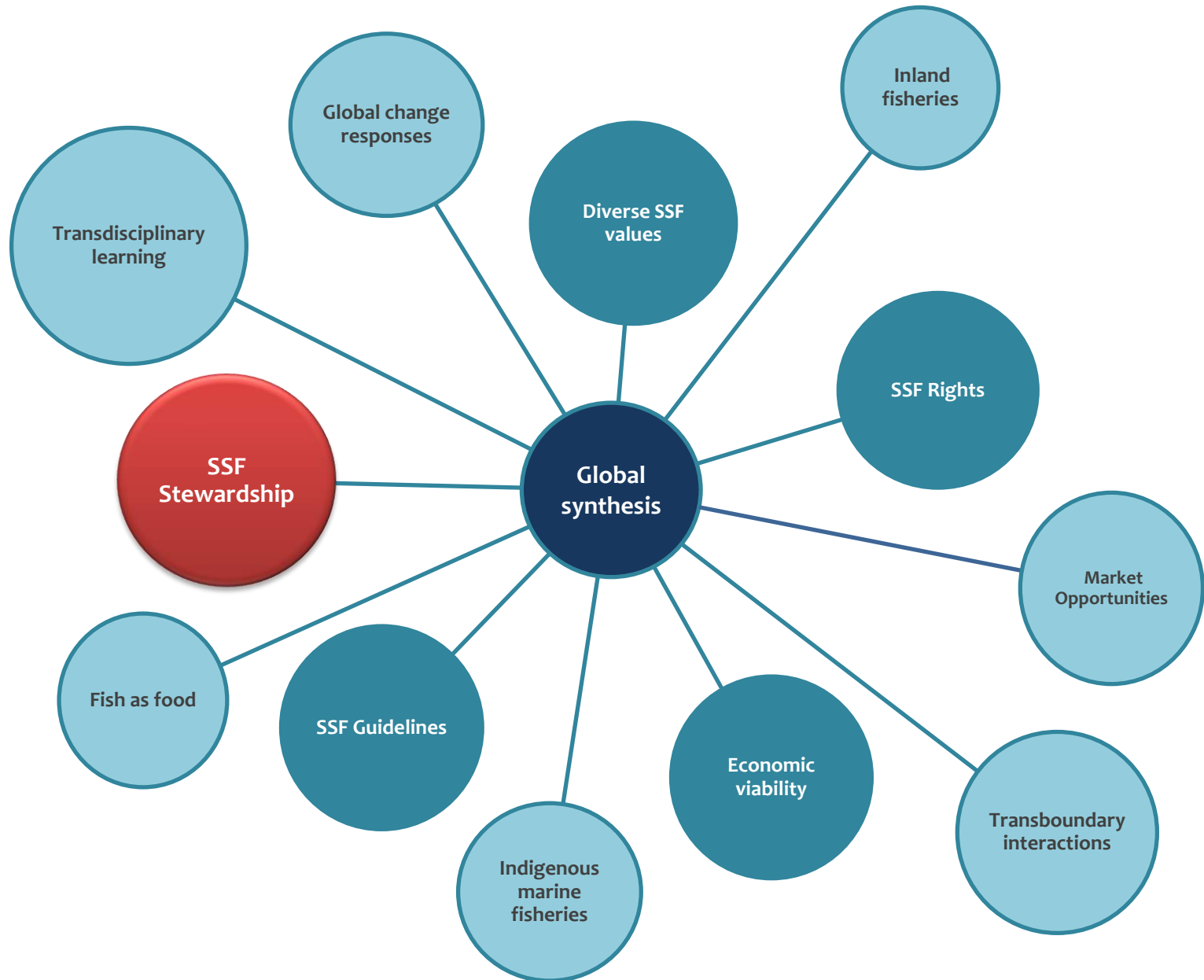
Small-scale fisheries are highly affected by these concerns.

Ecosystem health
Social justice
Livelihoods
Food security

Small-scale fisheries can make major contribution to address these concerns.

Chuenpagdee et al. (2005)

TBTI new research clusters



Stewardship cluster

Objective:

- to provide a global view of small-scale fishing impacts and contributions of SSF to conservation and stewardship

Focus on two specific issues:

- relative impacts of various types of SSF fishing gear
- To identify the actual and potential role of SSF communities in the stewardship of fisheries resources and marine ecosystems

More than a Feeling: Stewardship as Ethics, Action, Capacity, and Outcomes

Tara Sayuri Whitty

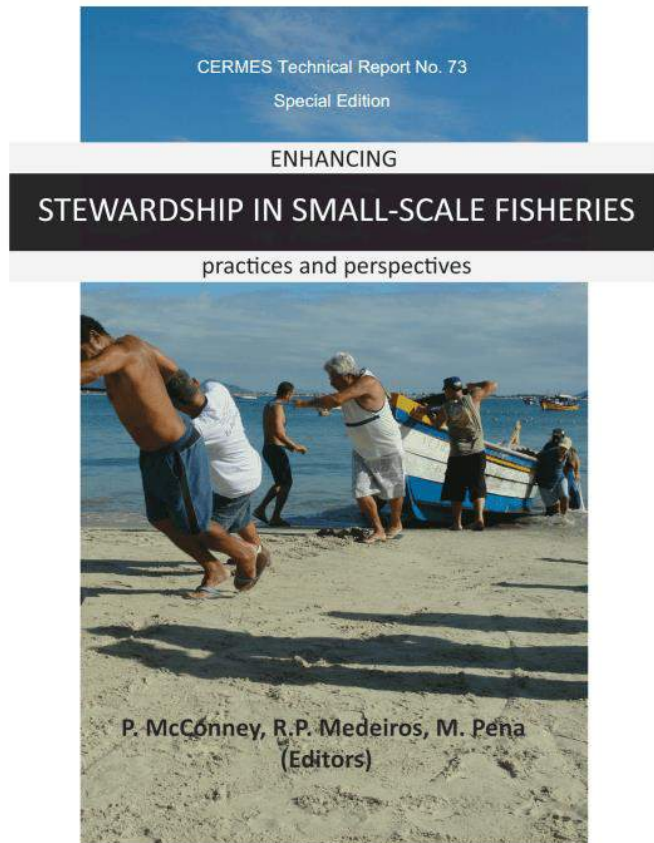
NSF SEES Fellows Program

Scripps Institution of Oceanography

- Center for Marine Biodiversity & Conservation
- Small-scale & Artisanal Fisheries Research Network

Too Big To Ignore





Too BIG To
IGNORE

Global Partnership for Small-Scale Fisheries Research

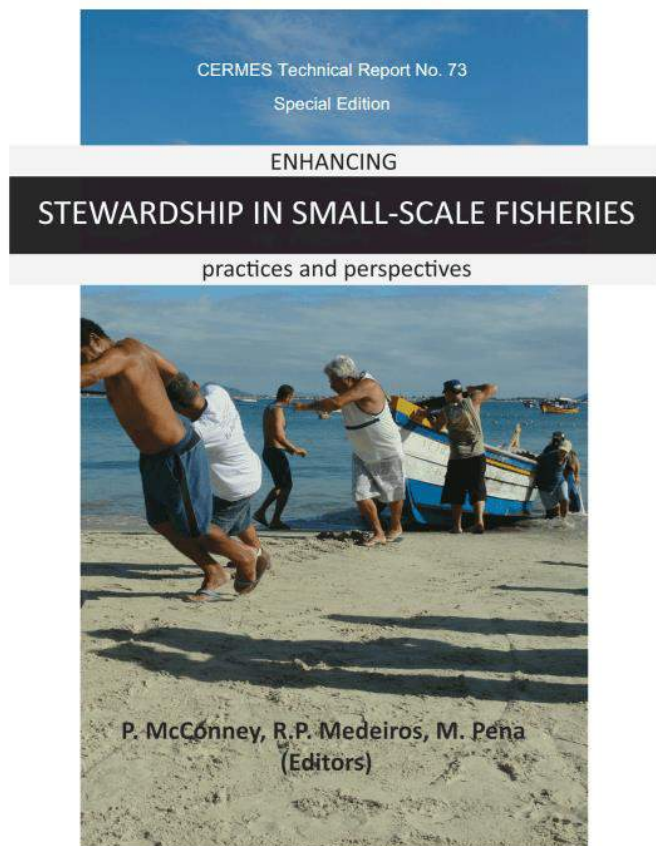
TBTI's Working Group on Stewardship:

“Ecosystem stewardship”

Strategies human societies develop in order to address sustainable pathways...

- (1) Reduce risk and vulnerability**
- (2) Foster resilience**
- (3) Embrace opportunities and transform from undesirable trajectories**
- (4) Support fishers' self-reliance & self-organization**

(Chapin et al. 2009)



TBTI's Working Group on Stewardship:

1. SOCIAL-ECOLOGICAL IMPACTS

technology, bycatch, climate change

2. MONITORING SYSTEMS

indicators, scorecards, participation

3. STEWARDSHIP

*Institutional arrangements
(fisher org.s, SSF guidelines)*



Too BIG To
IGNORE

Global Partnership for Small-Scale Fisheries Research

The Stewardship Research Cluster:

Build on the WG's efforts

1. More information on the social-ecological interactions of SSF

2. Move toward more systematic evaluation of stewardship in SSF

TBTI Workshop (July 29-30)

IMCC Session (July 31)

Conservation and stewardship in small-scale fisheries: Practices and lessons from around the world

Stewardship & Small-scale Fisheries

Promoting active participation and leadership in conservation



IMCC 4 | August 3, 2016
Tara Sayuri Whitty, PhD¹
Nathan Bennett, PhD^{2, 3}

From Whitty & Bennett 2016

Collaborators

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British Columbia**

⁴Center for Ocean Solutions

Role of SSF in conservation

IMPACTS

DEPENDENCE

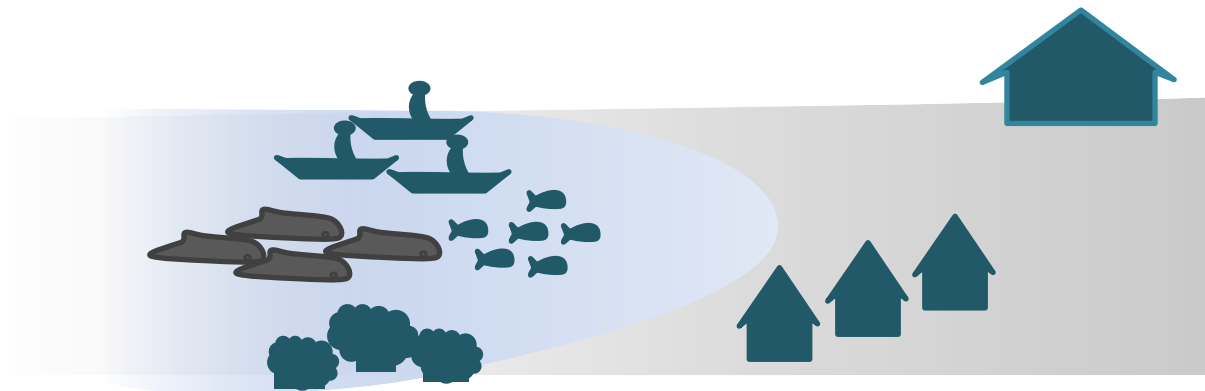
& CONSERVATION

AQUATIC CONSERVATION: MARINE AND FRESHWATER ECOSYSTEMS
Aquatic Conserv: Mar. Freshw. Ecosyst. 24(Suppl. 2): 199–215 (2014)
 Published online in Wiley Online Library
 (wileyonlinelibrary.com). DOI: 10.1002/aqc.2514

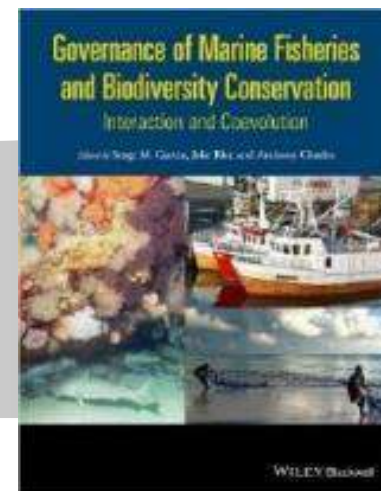
Marine protected areas and fisheries: bridging the divide

JEAN-YVES WEIGEL^a, KATHRYN OLIVIA MANNLE^{b,*}, NATHAN JAMES BENNETT^{c,d}, ELEANOR CARTER^e,
 LENA WESTLUND^{f,g}, VALERIE BURGNER^h, ZACHARY HOFFMANⁱ, ALFREDO SIMÃO DA SILVA^a,
 ELIMANE ABOU KANE, JESSICA SANDERS^j, CATHERINE PIANTE,
 SUKARNO WAGIMAN^k AND ASHLEY HELLMAN^l

Weigel, Mannle, Bennett, et al. 2014

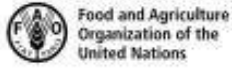


From Whitty & Bennett 2016



**Garcia, Rice, & Charles
 (eds) 2014**

Rights of SSF in conservation



Voluntary Guidelines for Securing
Sustainable Small-Scale Fisheries
in the Context of Food Security
and Poverty Eradication



HUMAN RIGHTS

Voluntary Guidelines for Securing
Sustainable Small-scale Fisheries in the
context of food security and poverty
eradication (FAO 2015)

HUMAN DIGNITY

e.g., Song, A. 2015. Human Dignity:
A fundamental guiding value for a
human rights approach to fisheries?
Marine Policy.

the right
thing to do
conservation effectiveness

From Whitty & Bennett 2016

Role: Rights... & Responsibility

“This ethical sense of responsibility can serve as an anchor to motivate long-term management of resources beyond simple compliance contingent on enforcement or immediate benefits of such management”

Stewardship

valuable concept for more holistically evaluating and guiding productive and sustained relationships between small-scale fisheries and conservation.

From Worrell & Appleby 1999:

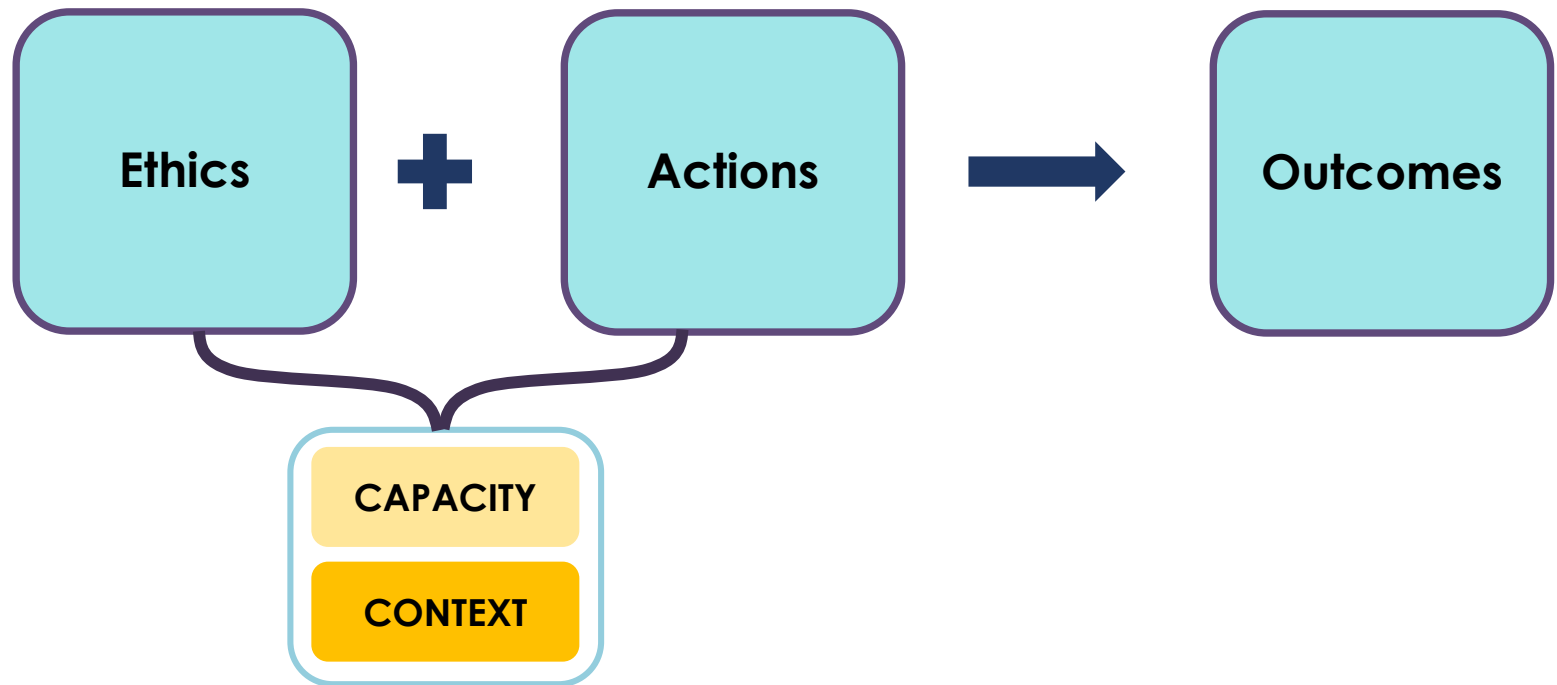
"Stewardship is the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society."

To optimize effectiveness of stewardship initiatives, we need a clear definition and analytical framework

From Whitty & Bennett 2016

Stewardship

Definition

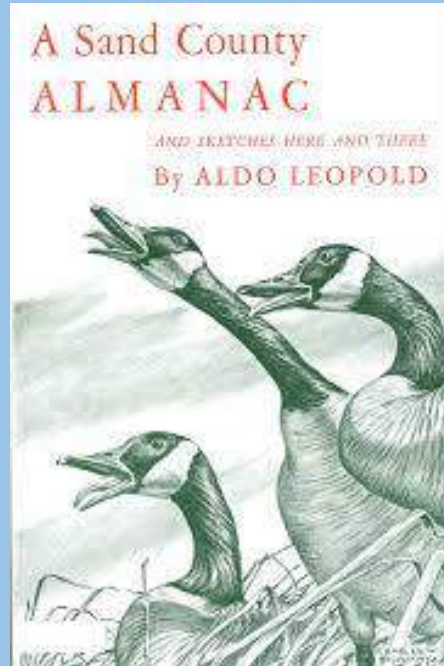


From Whitty & Bennett 2016

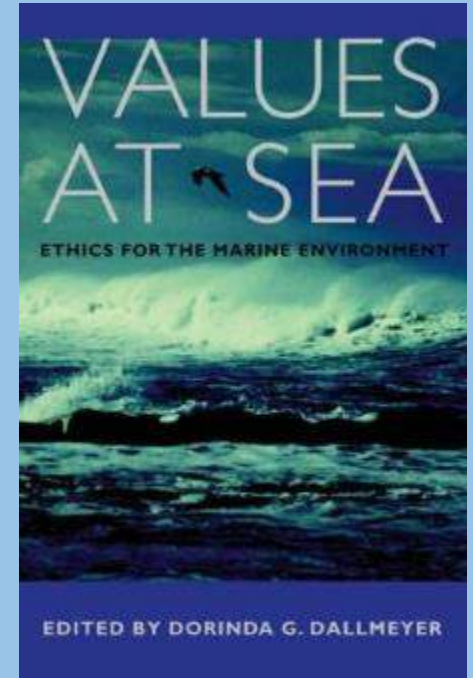
Ethics



“The land ethic”



“Ocean ethics”



What drives this ethic:
Intrinsic value? Use value?
Relational?

Actions

Management Tools

Fisheries Controls

- Spatial or temporal Closures
- Catch restrictions (size, species, #)
- Gear modifications/bans
- Fishing effort/capacity

Ecosystem Protection & Conservation

- Habitat & species protection
- Habitat restoration
- Gear modifications/bans
- Zoning of uses

From Whitty & Bennett 2016

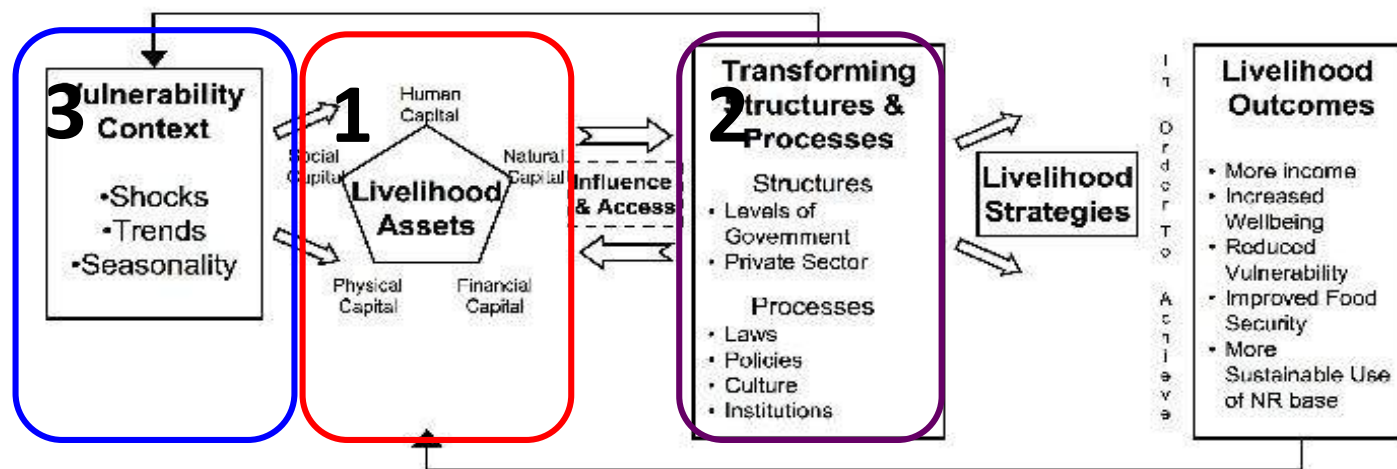
Capacity

Context

Enablers and Barriers to Stewardship:

- 1) Local capacity
- 2) Governance & Institutions
- 3) Broader context

Definition



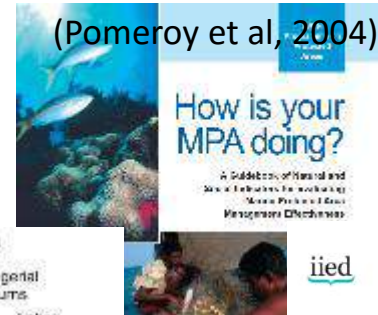
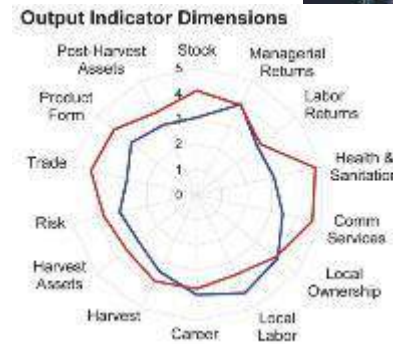
(Sustainable Livelihoods Framework - Carney, 1998)

From Whitty & Bennett 2016

Ecological & Social

How to monitor & evaluate?

- Indicators; quantitative, comparable
- Qualitative approaches



iied

Social Assessment of Protected Areas Early Experience and Results of a Participatory, Rapid Approach

Phil Franks, Dilys Roe, Rob Small, Helen Schneider

(Franks et al. 2014)

To consider: Long-term function, feedbacks, adaptive management



	PROMOTE ETHICS	BUILD CAPACITY	IMPLEMENT ACTIONS
Strategies	Sharing tradition Support tradition Changing attitudes	Strengthen local rights Enhance participation Enhance transmission of ideas Build skills in research & mgmt. Support infrastructure Foster resilience	Design Legalize/Obtain approval Enforce
Approaches	Education/outreach Social marketing Cultural programs Consumer programs	Policy changes (local & higher) Training/citizen science Learning networks Alternative livelihoods Health & well-being programs	Focus groups Participatory approaches Community officers
Driving Institutions	Community NGO Academic Local gov't Higher level gov't		
To Consider	Sense of responsibility? How linked to action? Ties to culture? Participatory?	Scales! How linked to ethics and action?	Sustained effectiveness? Objectives? How were actions designed?

From Whitty & Bennett 2016

Research Questions

1. How is stewardship manifested?
2. How do we (responsibly) promote it?
3. Is it effective?

Evaluating stewardship

Is this (part of) stewardship?
 What enables/hinders this?
 What does stewardship accomplish?
 Does it warrant greater attention?

		ETHIC	CAPACITY & CONTEXT	ACTIONS	OUTCOMES
Status		Source Strength Focus/breadth	Local capacity Broader context	Tools Enforcement	Compliance Ecological Social *Status of info
Community rights		How related to rights?	What are they? How supported?	How respected or utilized?	Supported/limited by actions?
Community Responsibilities		Who feels responsible?	Who can be responsible?	Who is responsible?	Who is held accountable?
Intervention	Description	Program, Approach, Goals			
	Driving Institution	Type of Institution			
	Process	Interactions with & roles of community and other inst. How is it developed, implemented, evaluated?			
	Effectiveness	At meeting stated objectives & at meeting "stewardship objectives"			

From Whitty & Bennett 2016

To conclude...

Major challenge: Understanding which “stewardship” interventions to implement where.

- That align with the context
- That will effectively achieve desired goals

& how to meaningfully implement “stewardship” interventions

The Stewardship Research Cluster:

Build on the WG's efforts

1. More information on the social-ecological interactions of SSF

Gear impacts paper

2. Move toward more systematic evaluation of stewardship in SSF

Stewardship defn + framework paper
Stewardship case studies paper

TBTI Workshop (July 29-30)

IMCC Session (July 31)

Conservation and stewardship in small-scale fisheries: Practices and lessons from around the world



Small-scale fisheries and stewardship

A shared story

Delphine ROCKLIN

TBTI Webinar #7
August 1st, 2016

INTRODUCTION

Stewardship: “obligation to be responsible for taking care of another person’s property”

→ practice inherent in many cultures and traditions

Has the potential to contribute to conservation and sustainability in **small-scale fisheries**

INTRODUCTION



To provide an overview of stewardship practices and initiatives in small-scale fisheries

- How is stewardship applied to small-scale fisheries worldwide?
- To which extent these actions are **initiated and leaded** by small-scale fishing communities
- What are **the positive and negative impacts** of such activities for small-scale fishers.
- What are the **key attributes fostering or inhibiting stewardship practices**

CALL FOR CONTRIBUTIONS



The screenshot shows the homepage of the 'Too BIG To IGNORE' website, which is a global partnership for small-scale fisheries research. A prominent yellow banner with the text 'CALL FOR CONTRIBUTIONS' is overlaid on the right side of the page. The website header includes the 'Too BIG To IGNORE' logo and a navigation menu with links to Home, About TBTI, Output, Research Clusters, People, and ISSF. The main content area features the title 'Stewardship in small-scale fisheries: Practices and lessons from around the world' and a sub-header 'Workshop announcement and call for contributions on peer-reviewed synthesis paper & Journal special issue publication'. The dates '29-30 July, 2016, St. John's, NL, Canada' are also displayed. The text below describes the workshop, its purpose, and the call for contributions to a peer-reviewed paper and a journal special issue. It mentions that the workshop is part of the TBTI SSF Stewardship research cluster and will take place at Memorial University, St. John's, Canada, prior to the 2016 International Marine Conservation Congress (IMCC4). The text also states that the workshop aims to provide a global overview of small-scale fishing impacts and contributions of small-scale fisheries (SSF) to conservation and stewardship. The purpose of the workshop is to share information about stewardship activities involving small-scale fishing people in various parts of the world, synthesize knowledge about impacts of SSF and discuss what needs to be done to address them. The anticipated output from the workshop is a synthesis peer-reviewed paper, co-authored by workshop participants. We also invite participants to submit manuscripts on topics related to stewardship in small-scale fisheries to a journal special issue, which we will organize. This is a great opportunity for those attending the IMCC to come early and join the discussion about the stewardship in SSF. The minimum requirements to participate in the workshop include completing the two TBTI surveys on SSF stewardship (the SSF gear impact assessment and the assessment of SSF stewardship activities). We also highly encourage interested participants to complete our SSF profile as this can provide additional information for analyses and discussions at the workshop. There is no fee to participate in the workshop. We will provide refreshments, lunches and dinner during the workshop. If you are interested, please send us the completed registration form, along with the two surveys to toobigtoignore@mun.ca and possibly a completed SSF profile (submitted through ISSF) no later than June 30th, 2016.

**CALL FOR
CONTRIBUTIONS**

CALL FOR CONTRIBUTIONS

Stewardship Activities - Rapid Assessment

Instructions:

In the space below, please provide information about the issues (including stresses and changes) facing small-scale fishing people in a location that you're familiar with.

*Required

Name of contributor *

Email *

Affiliation *

Country *



**6 questions
regarding
stewardship
activities**

1. What types of stewardship activities take place in the area?

For lobster since 1981 from may to June.
Agriculture, Ganadería, Desarrollo Rural, Pesca y Alimentación. COMISIÓN NACIONAL DE ACUICULTURA Y PESCA. 2014. PROGRAMA DE ORDENAMIENTO PESQUERO
ISTA DE LA PENÍNSULA DE YUCATÁN, MÉXICO.

very management plan for the grouper *Epinephelus morio* and associated species.
le la Federación. 2014. ACUERDO por el que se da a conocer el Plan de Manejo Pesquero de Mero (*Epinephelus morio*) y especies asociadas en la Península de Yucatán.

manent ban for fishing sea turtles and marine mammals, manatees were an abundant species that has decreased at the lagoonal environment.
Agriculture, Ganadería, Desarrollo Rural, Pesca y Alimentación. 2014. Dirección general de ordenamiento pesquero y acuicola. PERIODOS DE VEDA PARA ESPECIES
DULCEACUICOLAS.

that prohibits any kind of fishing at the Yalahau Lagoon however fishing at the lagoon is widespread and occurs daily. These information has been documented during my field
island.

Who initiated these activities? (e.g. communities, government, NGOs etc.)?

an Government has developed diverse strategies related to the fishing bans and fisheries management. However there is a need to
e the fishing authorities in the region since the actual scheme seems no to be working towards sustainable fishing activities. Instead it
a race to fish and an increase of illegal fishing activities that damage the environment.

munity members at Holbox Island are very proactive and sometimes organize themselves to obtain local government funds that are used
community activities at the Island which include environmental education, cleaning of the coastal area and monitoring the Yalahau lagoon
legal fishing. However these activities are not continuous and require more institutional and government support.

some NGOs that have worked or are still working at the area (COBI Comunidad y Biodiversidad y Asociación Civil;
entro Mexicano de Derecho Ambiental, A.C; Alma Verde; Grupo Ciudadano de Holbox). The Yum Balam Natural Protected Area Office
al conservation and management actions at the Island (related to sea turtles and birds) and also coordinates with fishers to organize the
activities related to whale shark watching tours.

3. What roles do small-scale fishing communities have in these stewardship activities?

The fisheries are organized into fishing cooperatives. Until now I am not aware that the fishers' community at Holbox Island is organized towards some kind of stewardship activities. The community is at a conflict related to the selling out of communal land from the Holbox ejido. The increasing land value at Holbox motivated locals to sell their ejido land to tourism development companies. There was a huge land sellout by some community members however a lack of clarity in the selling contract initiated a lawsuit between the Holbox ejido and the development companies. This situation has afflicted the community since local people are divided between the ones who sold and those who did not. This lack of social cohesion at the community level also afflicts other social behaviors related to environmental exploitation, since people at the community seem to be relatively careless about overfishing (though they are aware), or about enhancing sustainable fishing practices that could benefit their future fisheries landings. Overall most of the islands inhabitants are very focused in making money either from selling their land or from tourism activities.

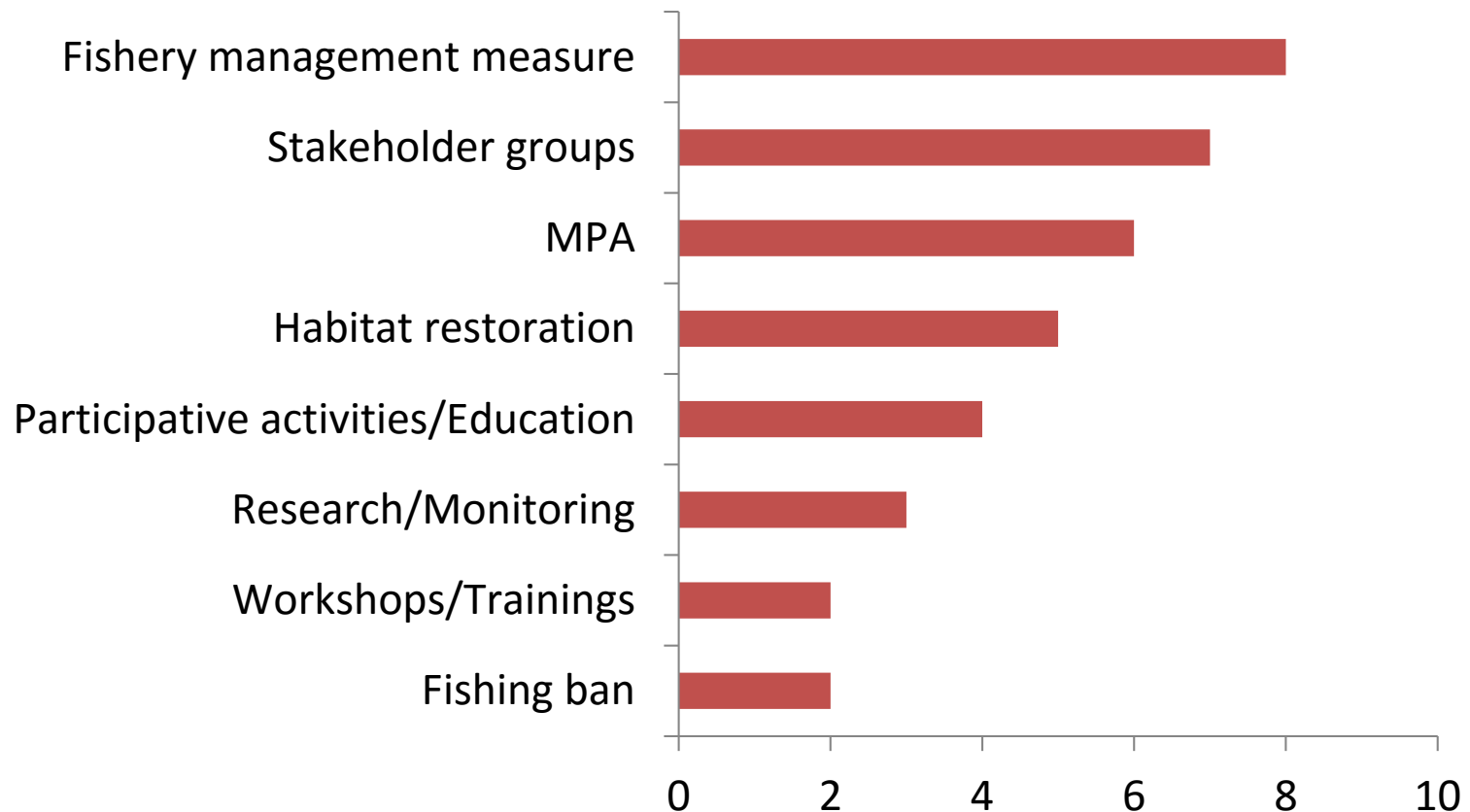
CALL FOR CONTRIBUTIONS

15 case studies located in 11 countries



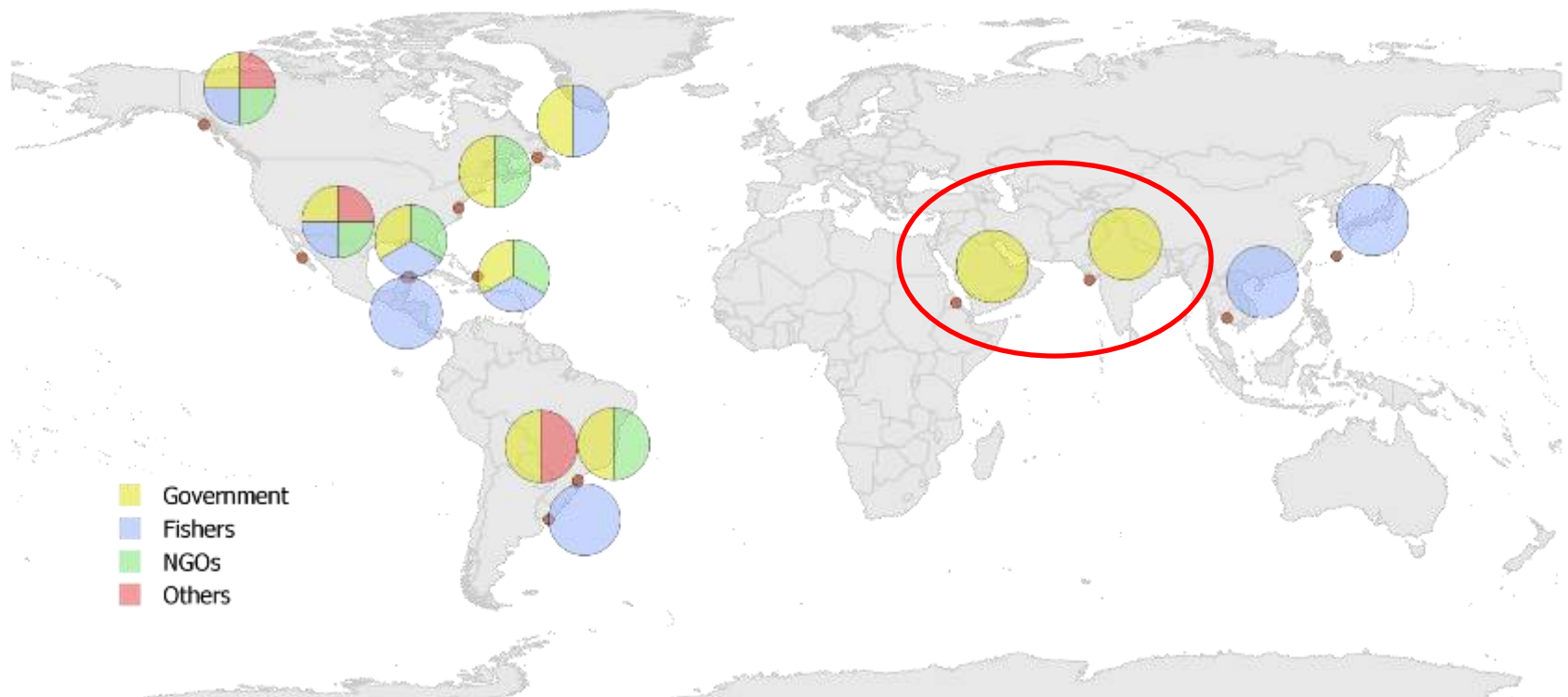
FIRST PICTURE OF STEWARDSHIP IN SSF

What type of stewardship activities take place in the area?



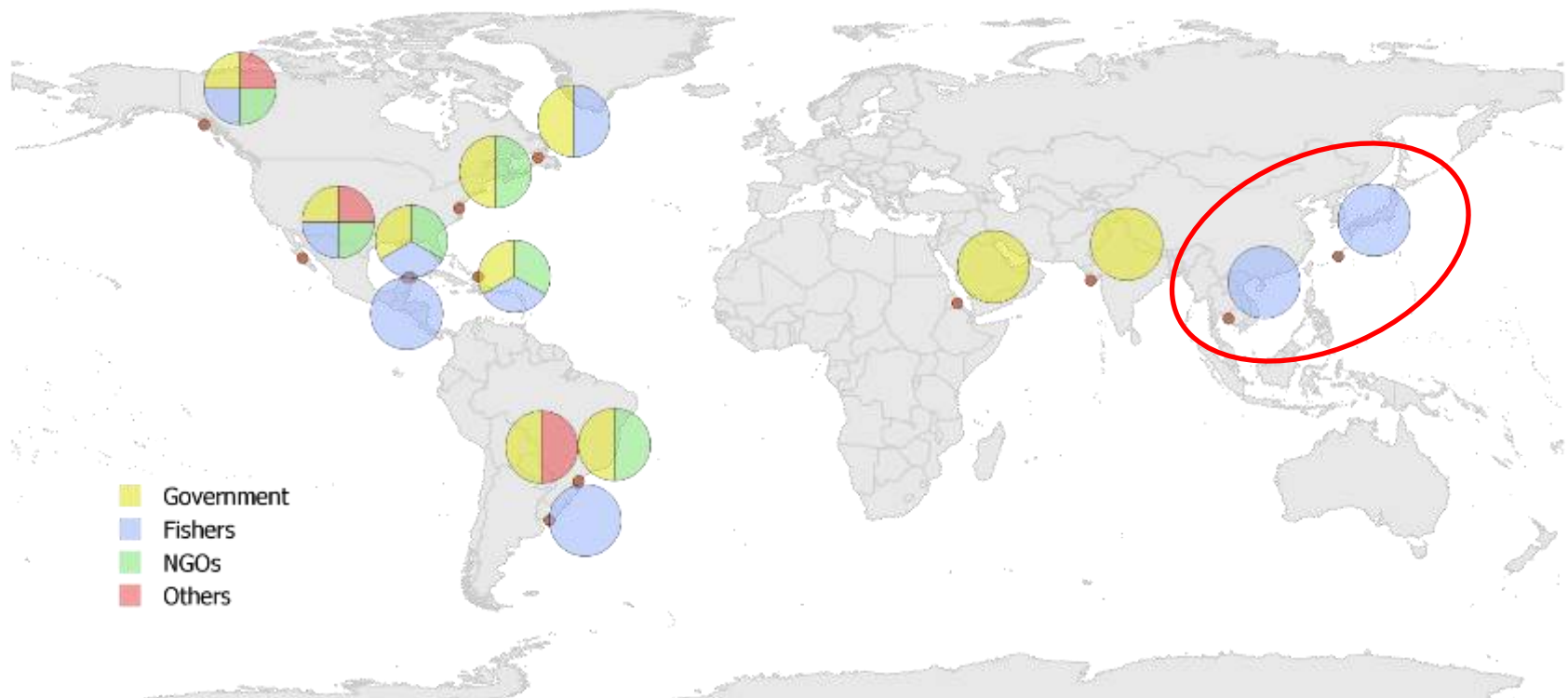
FIRST PICTURE OF STEWARDSHIP IN SSF

Who initiated the stewardship activities



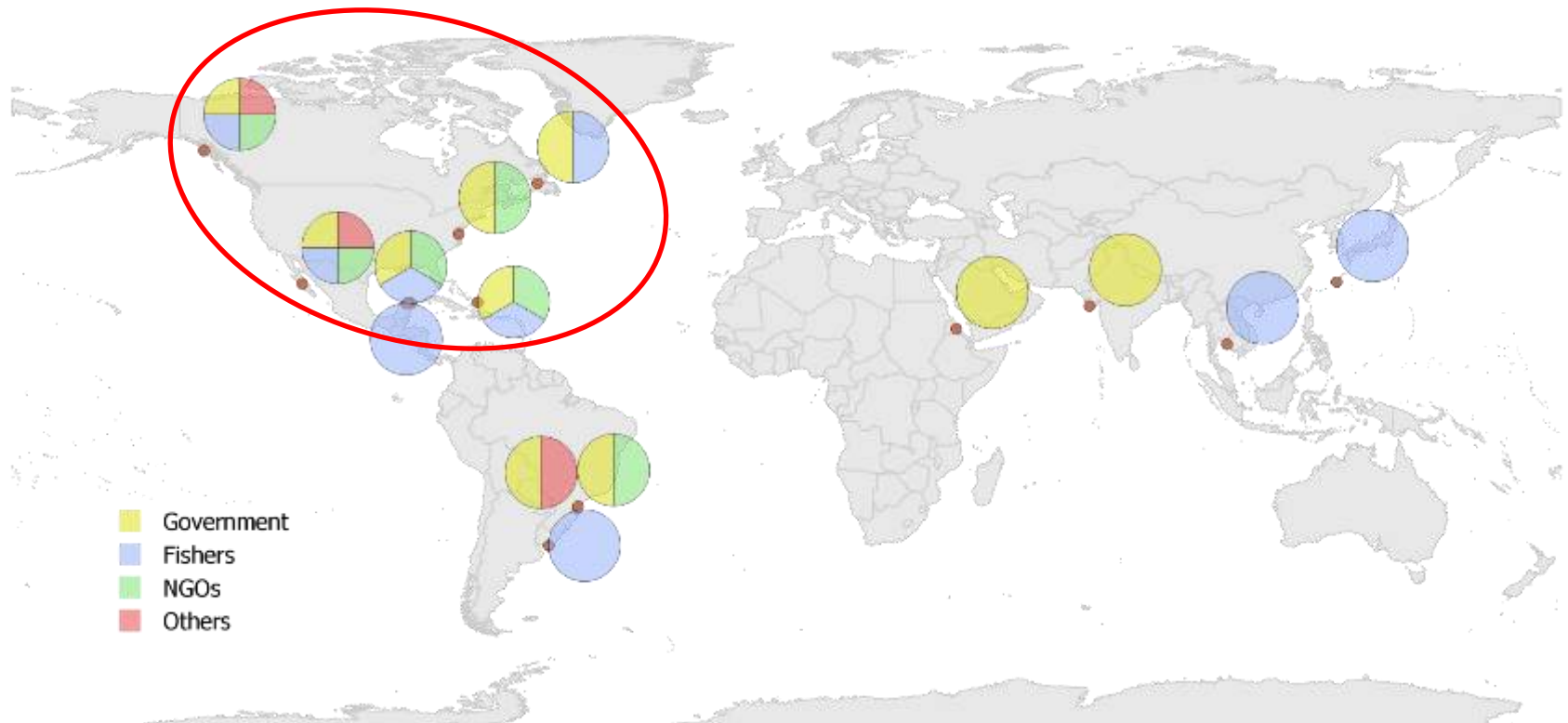
FIRST PICTURE OF STEWARDSHIP IN SSF

Who initiated the stewardship activities



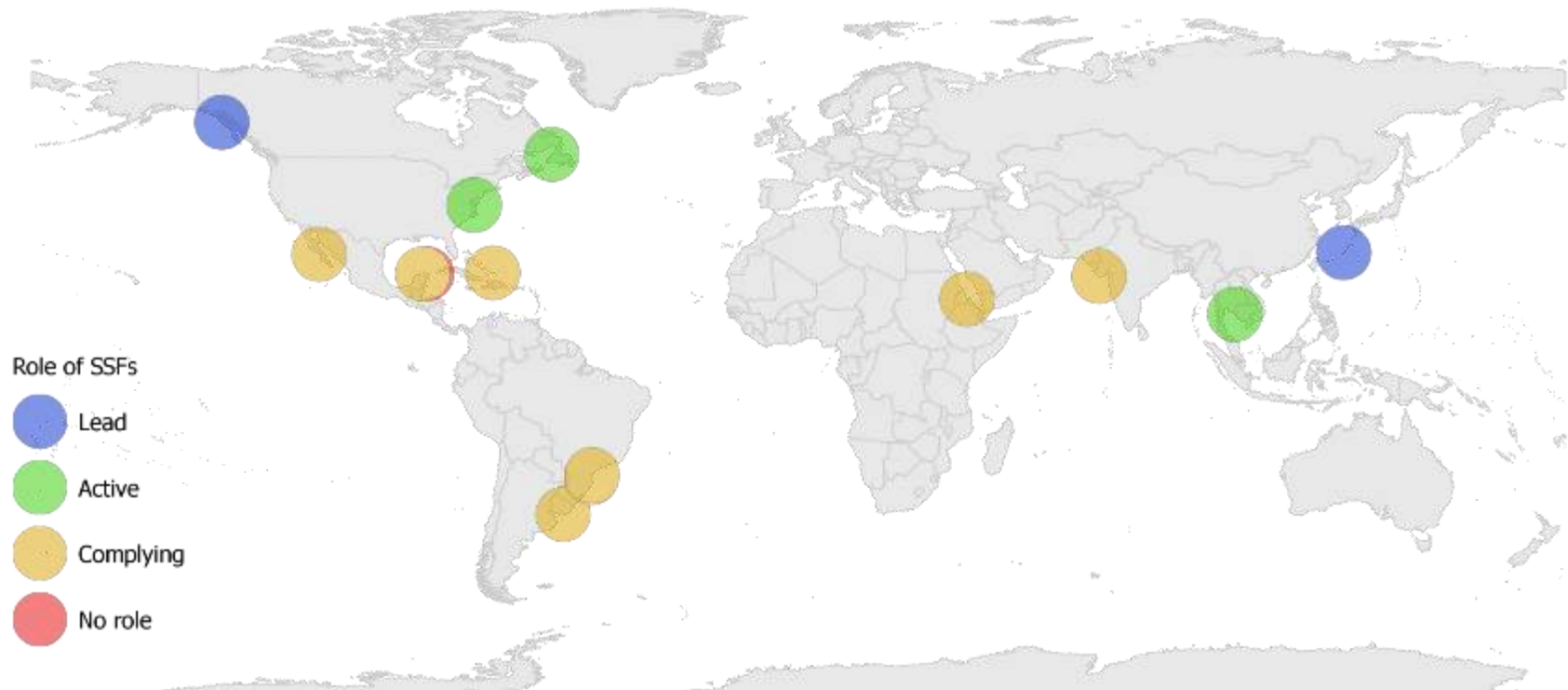
FIRST PICTURE OF STEWARDSHIP IN SSF

Who initiated the stewardship activities



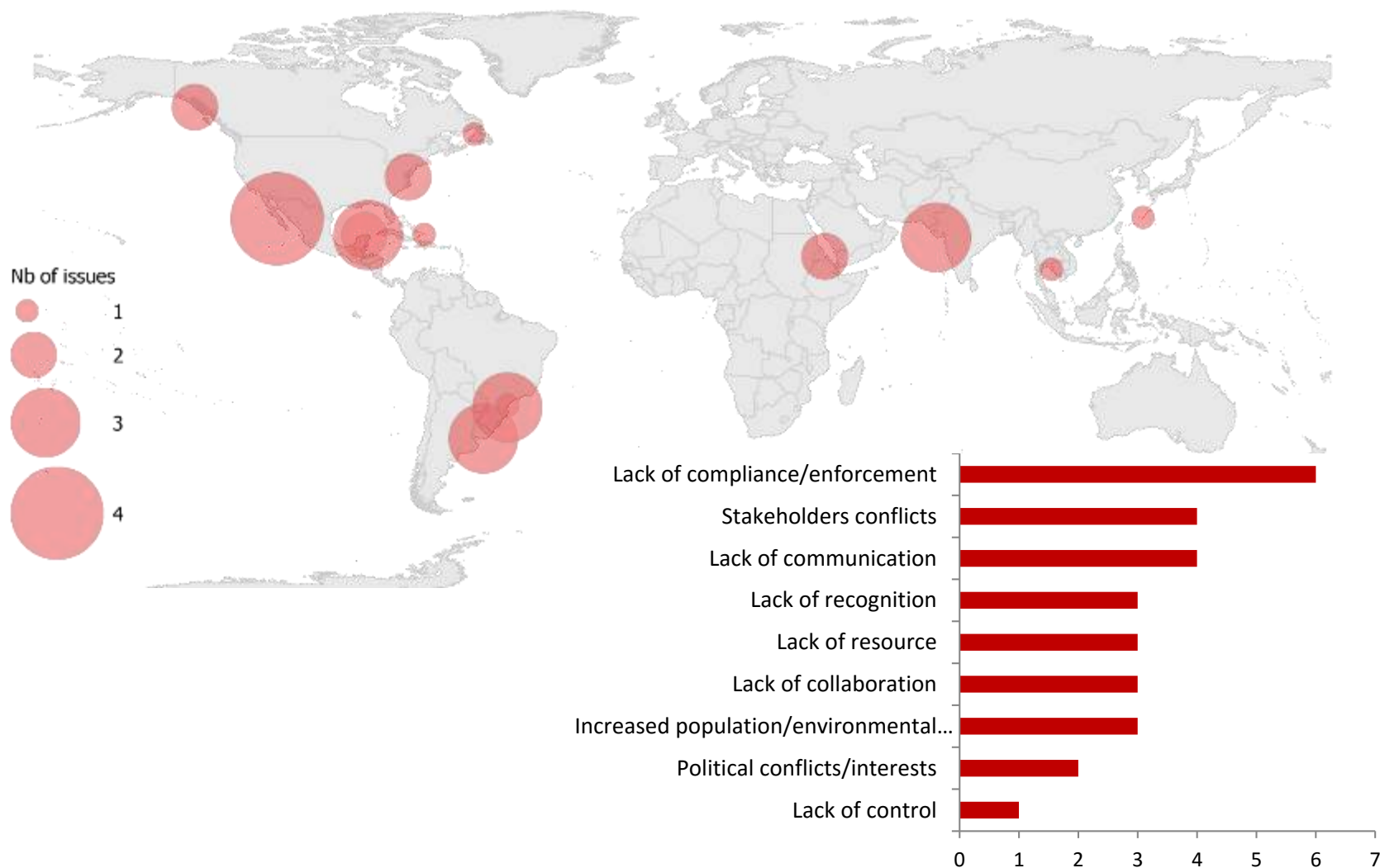
FIRST PICTURE OF STEWARDSHIP IN SSF

Role of small-scale fishers in the stewardship activities?



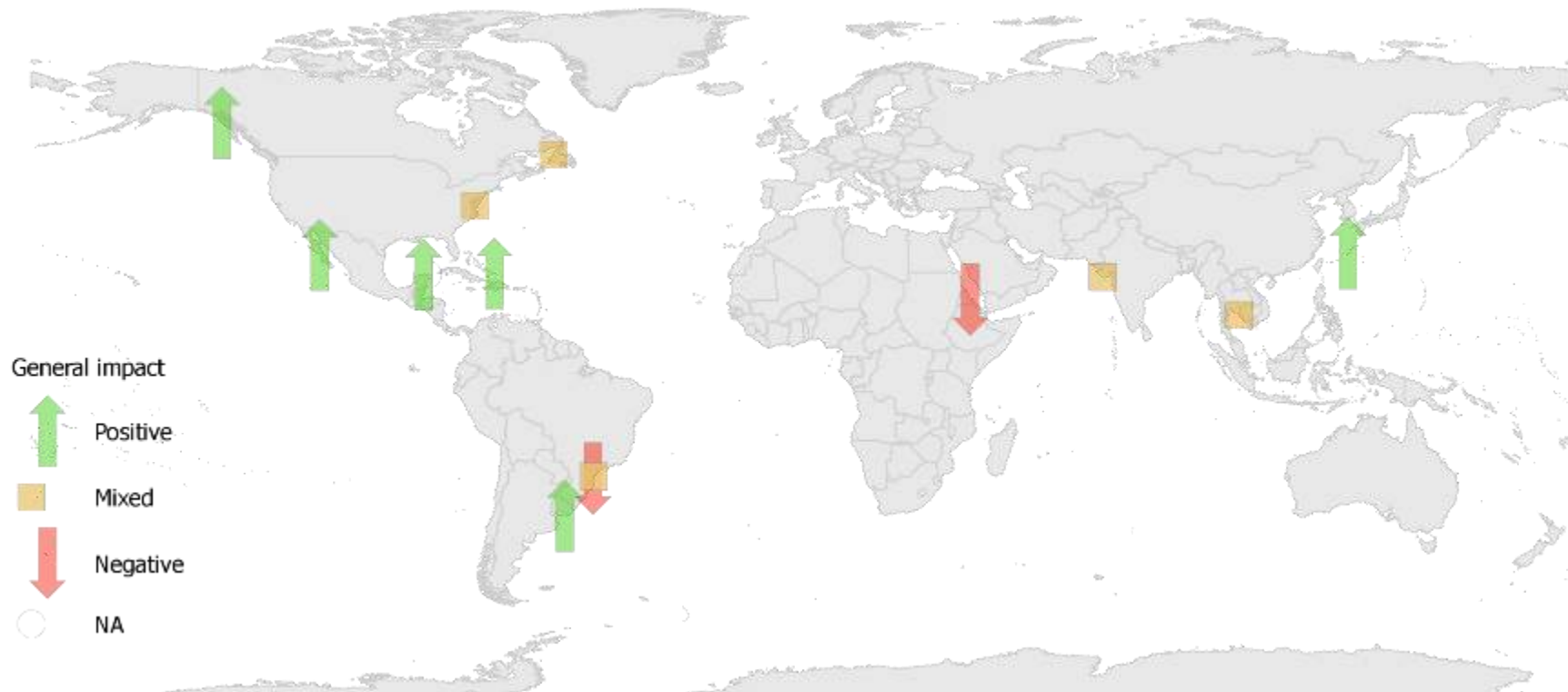
FIRST PICTURE OF STEWARDSHIP IN SSF

Problems and challenges facing the implementation of these activities?



FIRST PICTURE OF STEWARDSHIP IN SSF

What is the general impact of stewardship activities on SSF?



TBTI “STEWARDSHIP WORKSHOP”

Aims of the “Stewardship activities” working session:

- Learning about stewardship activities in SSF worldwide: different environments, resources state, fisheries importance etc...
- Gathering and sharing information & **brainstorming**



**What are the
key points to
consider for
drawing a
success
story?**

TBTI “STEWARDSHIP WORKSHOP”

- **Brainstorming – Whole group discussions**
 - when stewardship is a success
 - which key points should be evaluated
- **Break-out groups**
 - evaluation of key points success
 - weighting the key points



TBTI "STEWARDSHIP WORKSHOP"

Key points to consider for drawing a success story:

Rank of importance (1 to 3)	ID	Question	Low/Negative	Medium	High/Positive	Value (0 to 5)	
3	1	How experienced is the community?		/	///	3 3	
3	2	Quality of the stewardship process	/			1	
3	3	What is the level of compliance?	/			0.5	
3	4	Are the objectives clearly addressed?	/			1	
1	5	Is this situation a win-win (ecological and social systems)?	/			1	
3	6	Are there improvements in the stewardship? *		/		1.5	TOO EARLY TO TELL
2	7	Are there collective actions?		/		2	
1	8	Is the problematic clearly identified?		/		2	
1	9	Is there recognition of human rights?	/			0	
1	10	Are there short-term benefits?	///			1	TOO EARLY TO TELL
1	11	Are there long-term benefits?	///	/		3	
3	12	Do fishers have the sense of ownership?	/			1	
2	13	Are there social positive outcomes?	/			1	
2	14	Are there ecological positive outcomes?	/			1	
3	15	How strong is the collaboration level (fishers/managers/etc)	/			1	
3	16	Is there continuity of the project(s)?	/			1	
3	17	What is the level of communication between stakeholders?	/			2	
2	18	Is stewardship promoted?	/			1	

TBTI “STEWARDSHIP WORKSHOP”

How to capture the case study context?

Please try to fill this document as possible. The questions may not be very clear, don't hesitate to give your feedback on it.
If you find this interesting, can you rank the importance of these points for capturing the context specificities of the case study?

Case study:

1. Type of governance (top-down, bottom-up, co-governance, etc...) and level of participation of fishers:

co-governance, cooperative participation

2. Size of the fishery (number of fishers or fleet size, or % of the households... please specify):

(from 30-140 fishers per cooperative)

3. Boundaries:

clearly defined boundaries via concession rights

4. Type of the fishery:

- is it migratory: lobster/abalone → pelagic, finfish → migratory
- main gear: traps, buccah, gillnets, hook & line
- is it multi-species: yes
- is it multi-gear: yes
- commercial vs subsistence: commercial
- if commercial, is there capitalization of the fleet?: ?

5. Social context (wide question!):

homogeneous communities, strong social capital, high levels of trust, middle class communities

6. Is there another source of income? If yes, which one of the fishery or other source the most important?

depending on community - some commerce, ranching, ecotourism

7. Level of independence/autonomy of the fishery:

relatively high through co-management

8. Do the catches go to local market or export?

abalone, lobster → exported

9. Who initiated the stewardship?:

finfish → locally & regionally consumed
government, researchers, fishers, scientists together

10. Is the fishing community clearly defined?

yes through cooperatives & long-term/full-time

11. Are fishers organized in coop./organizations?

yes cooperatives

12. Are fishermen locals?

yes, mostly

13. Are they stewardship objectives?

in cooperative by-laws & in co-management arrangement

Knowing the context for gathering similar case studies:

- Size of the fishery
- Type of the fishery
 - Multi-gear?
 - Multi-species?
 - Commercial/subsistence?
 - ...
- Autonomy of fishery
- State of the resource / fishery
- Challenges:
 - Resource management
 - Ecosystem management
 - Well-being
 - ...

CONCLUSION

Next steps

- New elements emerged from discussions: ranking their importance through expert opinion
 - Selection of the most important ones, which can be applied to every case study
- Analysis of which combination of factors can lead to a success story or a failure
 - How to make stewardship successful according to the context?
Road map / tool box for small-scale fisheries stakeholders

CONCLUSION

Special thanks to all the participants

It's never too late if you want to participate!!!

Stewardship activities assessment survey available at:

<http://toobigtoignore.net/research-cluster/ssf-stewardship/>

Can be sent to toobigtoignore@mun.ca and drocklin@mun.ca

Low impact fishing is more than biological conservation!

Melinda Agapito

Stewardship Workshop 2016
Memorial University of Newfoundland
St. John's, NL, CANADA
July 29-30, 2016



Conservation

Conservation the protection, care, management and maintenance of ecosystems, habitats, wildlife species and populations (IUCN)

Why we need conservation safeguard natural condition, sustainable development, human survival

Conservation is ecological

Conservation is fundamentally ecological and it started that way (e.g. MPAs)

- Species extinctions (land, then marine)
- Decline of predatory fish due to industrial fishing

Conservation is also social

- Space, uses, and users
- Tradeoff between ecological and social priorities

“MPA as biological successes and social Failures”

Christie2004

Why Gear Impacts

Gear impacts “collateral impacts,” “collateral mortality”

- Habitat damage
- Bycatch (incidental catch not targeted)

Chuenpagdee et al.2003

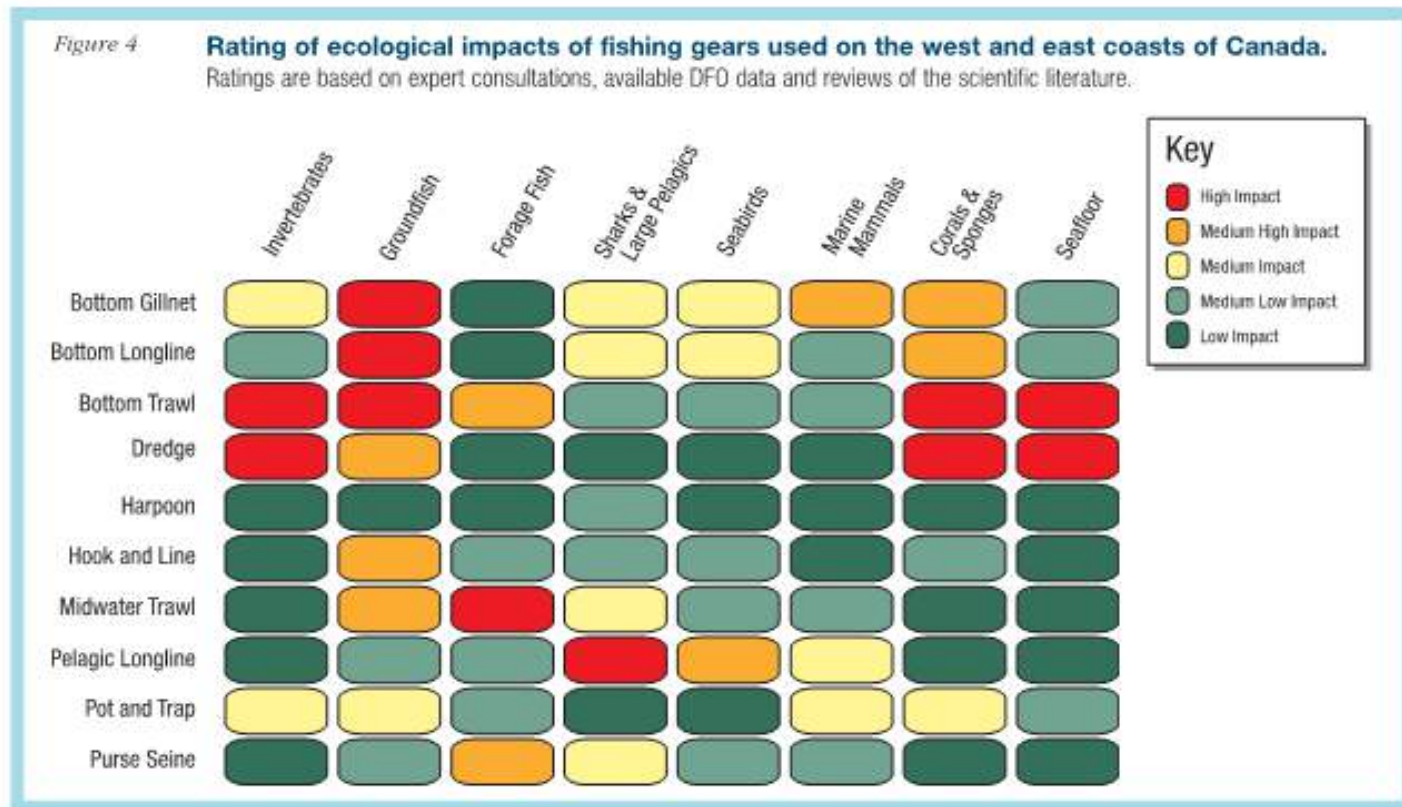
Problem

Fishing gears bring collateral impacts: Bycatch and habitat damage that adversely impact fishery

Bycatch of corals and sponges from one trawl through Hudson Strait coral hotspot, N Labrador, May, 2007
500 kg coral.

Chuenpagdee et al. 2003

Gear Impacts are ecological



Fuller et al. 2008

Gear impacts are social

- Historical and cultural perspective
- Local economy
- Food security
- Resilience and Dependence
- Accountability
- Fair access and distribution
- Cultural and Social Relationships

Social Benefits: Local Economy

Direct support to family or community

Gir Somnath, India | Rajib

Employment opportunities to family members and
Fishing gears are made locally

Social Benefits: Food Security

Food security exists when we have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life

Household and community level of food security

Social Benefits: Resilience & Dependence

Resilience ability to successfully adapt to change

- Easy to shift from one gear to the other
- Fishing is what they know

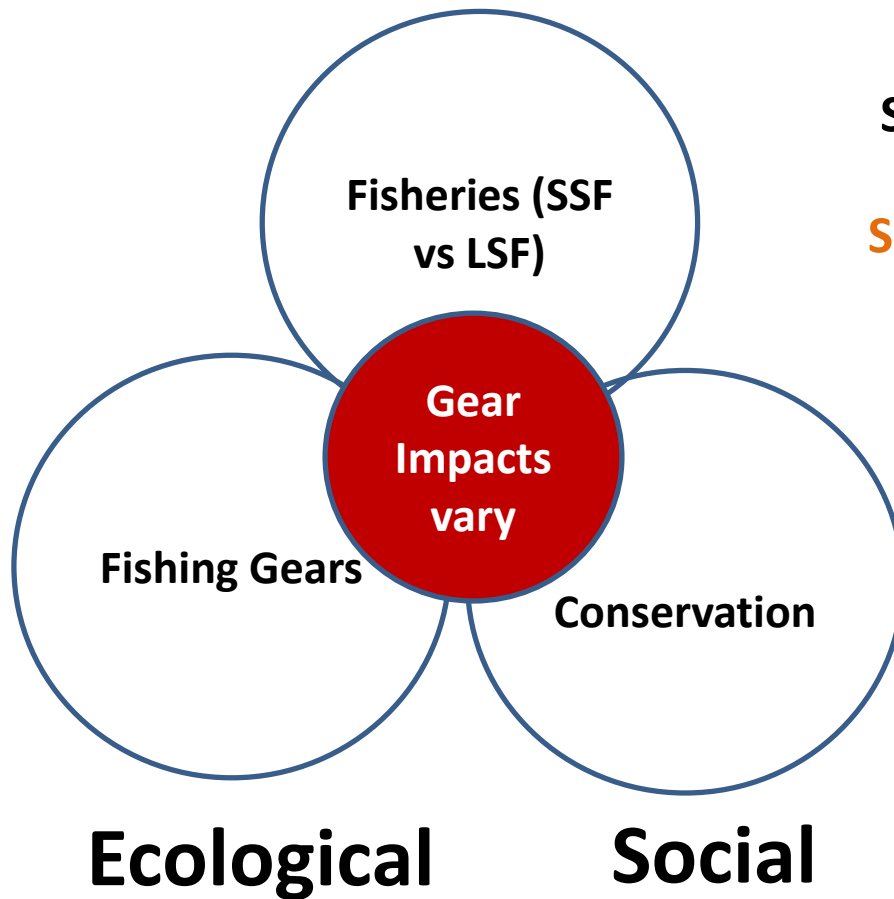
Tradition | Training | Heritage

Research Question

Gear impacts are NOT equal

Does this present a conservation alternative?

Low impact fishing is more than biological conservation!



SSF mostly uses low impact fishing gears

Sustainability | Social Justice | Wellbeing

Gear Impacts as key element

Conservation and fisheries management

Ecological

- Habitat
- Bycatch
- Mortality

Social, Political, Economics

- Subsidies
- Markets
- Effort
- Marginalization
- Access

(social benefits)

Low-impact case studies

(other factors)

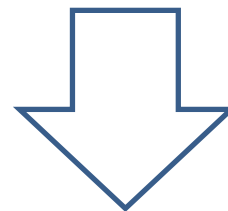
High-impact case studies

Low

Relative gear impact

High

Relative gear impacts



Conservation option
Alternative to spatial closure

Ecological **Social**



Gear Impact Study

Contact: magapito@mun.ca



Collaborative work | 12 countries | 18 researchers

Social Benefits: Accountability

Accountability expected or required to account for one's actions

- bycatch reduction
- research (e.g., mapping)
- conservation actions
- cost-effective measures (fuel efficiency)
- monitoring catch

Key Message: The majority of small-scale fisheries involve use of low-impact fishing gears, which contributes to sustainability, social justice and wellbeing of fishing people.

Incorporation of fishing gear impacts as a key element in fisheries management and conservation presents an excellent alternative to spatial closure or access restriction.

(1) Identify SSF low impact gear(s)

(2) Can you make a narrative about its ecological and social impacts (or their relative impacts) to support the key message?

How to present the narrative?

Example 1

3-4 compelling narrative (each gear impact story is specific to one location)

Example 2

Narrative by gear category (cluster of similar gears (or similar impacts) involving multiple locations)

Example 3 (Combination)

Questions to guide the narrative

- Where is the location of the study area?
- What is the proportion of SSF fishers using low impact gears relative to the total fishers?
- What are the SSF gears, describe their ecological impacts, who use them, how many people depend on them, why fishers use them and for how long, how have gears changed/been used over time?
- Measure(s) taken to mitigate bycatch/habitat impacts
- How successful have these measures and activities been in mitigating impact?
- What are the specific social and economic benefits from using the SSF gears? Do these benefits relate to one of the categories mentioned in Box A? If so, include in the narrative.
- Is the use of SSF low impact fishing intended for conservation or not?
- Is there an option to shift to LSF? If so, what could be expected?



Too BIG To
IGNORE

Global Partnership for Small-Scale Fisheries Research

Next TBTI webinar – September 1st, 2016

Diverse values in small-scale fisheries

Derek Johnson, University of Manitoba

