Too Big To Ignore Research Report

Number 02.1/2015



# Transdisciplinary Research and Capacity Building in Small-Scale Fisheries Workshop

Sunday, September 21st, 2014
2nd World Small-Scale Fisheries Congress, Mérida Mexico

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**Too Big To Ignore Research Report Number 02.1/2015** 

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### **Summary**

The Transdisciplinary Research Capacity Building in Small-Scale Fisheries Workshop was held during the 2<sup>nd</sup> World Small-Scale Fisheries Congress (2WSFC) in Merida, Mexico, 2014. The workshop was organized by the Too Big To Ignore (TBTI) project, a global research network aimed to elevate the profile of small-scale fisheries, and is closely linked to the 2WSFC.

The purpose of the workshop was to lay the foundation for future work in the development of the transdisciplinary fisheries course as well as to discuss lessons learned from various capacity development initiatives around the world.

Approximately 75 people participated in the workshop.

During the first part of the workshop, participants shared their knowledge and experiences as they discussed questions related to small-scale fisheries. Participants were asked to consider the questions through a transdisciplinary lens and identify what they would need to know and need do to address these issues, as well as identify best practices. Key terms that helped the group identify the characteristics of transdisciplinary research were listed and shared with the entire group on a living document (wall) that continued to evolve over the duration of the workshop.

Participants clustered posted key terms which resulted in themes including: Context, Gender, Bias, Empathy, Competing Interests, Participatory, Integrative, Stewardship, Succession Planning, Values, Governance, Empowerment, Economics, Rights, Well-being, Scale, Spatial Dimensions. Time scale, and Education / Learning.

In the second part of the workshop, core principles of transdisciplinarity and guiding messages were generated and denoted as core or peripheral. Participants were asked to consider what principles or guiding messages are core to transdisciplinary research.

In the final part of the workshop participants were asked to consider components of either a Transdisciplinary Fisheries Course or a Capacity Development Toolkit. The groups provided goals, topics and educational strategies for the TD Fisheries course, and both processes and approaches for the implementation of capacity development initiatives.

The results of these discussions and activities were prepared by Charlene Walsh are outlined below.

# **Agenda**

Schedule Time	Topic & Activity	
9:30 - 10:00	Welcome and introductions	
10:00 - 10:30	Exercise 1: What and why of transdisciplinary research	
10:30 - 11:00	BREAK	
11:00 - 12:30	Exercise 1(continued)	
	Questions and discussions	
12:30 - 13:30	Lunch	
13:30 - 14:15	Exercise 2: Core principles of transdisciplinary research	
14:15 - 15:00	Roundtable discussion: Capacity building - Experiences, lessons	
	learned	
15:00 - 15:30	BREAK	
15:30 - 16:15	Exercise 3: Development of transdisciplinary fisheries course	
	and capacity development toolkit	
16:15 – 16:30	Workshop reflection and closing	

# **Exercise 1 – Transdisciplinary Research**

#### Questions

- 1. How can we improve the economic viability of SSF and their resilience to large-scale change?
- 2. What contributions do SSF make to the social well-being of coastal communities and society more broadly?
- 3. How can SSF environmental impacts be minimized while strengthening their contributions to stewardship?
- 4. How can the livelihoods, physical space and rights of small-scale fishing people be secured?
- 5. What institutions and guiding principles are best suited for SSF governance at different scales?

Groups were asked to consider:

What do we need to **know** to address this question? What do we need to **do** to address this question? How might this question have been addressed in the past (**best practices**)?

#### Results

#### What do we need to KNOW?

- Specific context
  - Meta level (values, images, ideas)
  - Institutions
    - What ones exist? Informal, formal, government, religion, clans, etc
  - o Information about the fishery in question
    - Migrations between regions
    - Livelihoods (processers, suppliers, etc)
  - Knowledge system / boundaries
  - Governance structures
  - Social ecological viability
  - Local needs / vision
- Gender issues
- Operational definitions of economic viability, resilience
- What key issues are key pressures
- Competing demands
- Who "we" are: Recognize disciplinary biases, power structures
- Information is transdisciplinary and contextual
- How fishers understand social ecological systems
- Recognize that there is not a common language for transdisciplinary work.
- How different disciplines fit together (e.g. livelihood anthropology, economics, etc.; physical space – engineering; rights – geography, legal)
- How can the livelihoods, physical space, and rights of small-scale fishing people be secured?

#### What do we need to DO?

- Determine context- specific information
  - o legal framework
  - o fisheries management
  - o social, environmental, political, etc.
- Conduct stakeholder analysis
  - o Make sure involved in "we".
  - Involve actors in legitimate and equitable ways.
  - Deal with power issues
- Systematic assessment of existing information at macro and micro levels including status of stocks and ecosystems
- Understand the rights of the community
- Provide long term stable access to resources, information
- Incorporate economic and non-economic valuation
- Maintain diversity of resources
- Co-design research across disciplines and across world views

- Move into problem together (concrete not abstract)
- Create enabling conditions
- Develop short and long term visions
- Understand and respect existing values, disciplinary, human
- Consider women's livelihoods
- Build capacity in institutions and stakeholders to do this
- Develop structures to allow local people to be involved
- Ensure local involvement in monitoring / learning
- Empower rights, knowledge access, and structures that allow this
- Consider economic / policy supports
- Facilitate learning
  - Training/education in rules
- Establish partnerships between management, research and fisheries
- Change mindset
- Translate this into legal framework (final outcome)

#### **Best Practices**

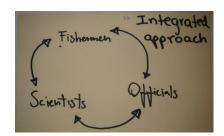
- Know your context
  - Key pressures
  - Understand places (local rules, livelihoods, gender, species / habitats) with their broader context
    - Social
    - Ecological
    - Governance
    - Economic
- Recognize transdisciplinary research is a process
- Recognize differences in rationalities and values and goals
- Consideration of perceptions and biophysical realities / economic realities
- Do Stakeholder analyses and use context specific information
- Avoid pre-determined normative commitments
- Find commonalities
  - Language interdisciplinary communication
  - Value systems
- Decentralization and co-management
- Integrative processes policies, tools, governance structures
- Participatory modelling
- Integrate knowledge production, learning, and doing
- Solutions that work at multiple spatial and temporal scales
- Not only using tools (PRA) but move into empathy (emic perspective)
  - o Put yourself in other's shoes- not only scientists but everyone involved

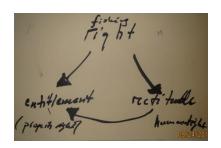
#### **Key Terms**

From the discussions above came key terms, which participants posted on the wall. Below is a full listing of those terms, including any duplication as presented by the groups.

- 1. Identifying opportunities
- 2. Systemic thinking
- 3. Competing interest
- 4. Decentralization and/or co-management
- 5. Move into problem together
- 6. 'Secured' in the concrete
- 7. Is transdisciplinarity inherently more participatory
- 8. Learning (capacity building, monitoring, exchanges, etc...
- 9. For whom? By whom?
- 10. Plurality
- 11. What kind of resilience? Social? Ecological?
- 12. What are the pressures
- 13. Diversity
- 14. Defining key terms
- 15. Scale's issue
- 16. Who "we" are
- 17. Stewardship  $\rightarrow$  "custodia"  $\rightarrow$  soigner et accompagner
- 18. Importance of communication and clarity of terms used
- 19. Demographics (migrations, health)
- 20. Incentives and threats
- 21. Recognize disciplinary bias
- 22. Planning for succession (capacity building, early exit strategy plan)
- 23. Places
- 24. Context always matters
- 25. Broader scale impacts of economic viability
- 26. Identify the limits of the system: 'Transdisciplinary system boundaries'
- 27. Importance of language and communication that we choose
- 28. Better communication fisherman language
- 29. Local values versus "global" values? (biodiversity conservation)
- 30. Importance and specificity of context and culture
- 31. Context: Universal? Best practice? Good enough?
- 32. Scale: Geographic? Global/outside markets; something broader that affects the local?
- 33. Time Dimension
- 34. Knowledge boundaries and production
- 35. Finding commonalities
- 36. Temporal Scale
- 37. Creativity in managing resources
- 38. Language; disciplinary cultural, varied semantics
- 39. Rationality: (economic, social, biologic)
- 40. Governmentality
- 41. Different time scale

- 42. Two way learning
- 43. Future contributions
- 44. Empathy / emic perspective
- 45. Stakeholder analysis
- 46. Interdisciplinary / Transdisciplinary ?
- 47. Well-being and contributions from whom?
- 48. Researcher Subject position
- 49. Keys to doing it: (continuity, spending time, training local people and partners with local institutions, NGO, Church, Government
- 50. Enabling conditions to secure -----
- 51. Well-being (material, subjective, relational)
- 52. Peer to peer learning
- 53. Conflicts or reconciling identity and culture with ecological change
- 54. Which economy? Fishing versus other activities
- 55. Learning to be adaptive
- 56. Spatial dimensions of SSF cultural diversity
- 57. Dimensions of scale
- 58. Ecology and biophysical realities
- 59. Social and cultural capital
- 60. Multiple users/values
- 61. Values disciplinary human
- 62. Understanding values where does 'economic viability' fit in
- 63. Privileging community desires
- 64. People's interests → cultural values
- 65. Values, Visions, Goals
- 66. "Problem is above the water, not only underwater in fisheries" Jose
- 67. Perspective dimensions
- 68. Involve actors in legitimate and equitable way
- 69. Local participation on decision making
- 70. Ensure participation in meaningful not just a box-ticking exercise
- 71. Can it be saved?
- 72. Coalition-building and knowledge exchange between policy makers, NGS's, fishers.
- 73. Integrated approach: (diagram circle with two-direction arrows between each term)
  - ←→ Fishermen ←→ Officials ←→ Scientists ←→
- 74. Integrative (thinking, policies, structures)
- 75. Governance
- 76. Gender
- 77. Rights
- 78. (diagram triangle with fishing rights at the top)
  - Entitlement (property rights) ← Fishing rights → ???????
     (human activities) → (to entitlement)
- 79. User rights (assign rights)
- 80. Understanding power structures
- 81. Power structures





- 82. Power dynamics
- 83. Empowerment
- 84. Addressing financing gap
- 85. Measurement mechanisms: qualitative, quantitative (complementary)
- 86. Improving returns to Fishers: Direct marketing, Livelihood diversification
- 87. New ways to access information and communication  $\rightarrow$  negotiation of returns
- 88. 'hands-on' projects and problem solving as dialogue forums

#### **Clusters and themes**

The groups were asked to cluster their key terms as they presented to the full room. Throughout the day, participants continued to cluster the key terms. The following image and clusters are a representation of the grouping of terms as presented.



#### **Clusters/ Themes**

- Know the context
- Know the actors
- Stakeholder analysis
- Gender issues
- Rias
- Understand competing interests, pressures, incentives and threats
- Empathy
- Limitations / boundaries
- Participatory Ensure participation is legitimate and equitable
- Integrative
- Stewardship custodia
- Succession Planning
- Understand values, visions and goals
- Governance power dynamics and structures decentralization
- Empowerment
- Economics
- User rights
- Well-being

- Dimensions of scale geographic, economic
- Spatial dimensions
- Time scale
- Education / Learning
- Communication and a common language (clarity, definitions)
- Knowledge exchange and strategies
- Networking
- Monitoring, measurement strategies

# **Exercise 2: Core Principles & Guiding Messages**

# **Principles of Transdisciplinarity - Core Principles and Guiding Messages**

#### **Group 1**

#### Core

- Work from principles and process and not disciplines
- Always consider the importance of the context
- Facilitate a process through which the problem can be defined (1)
- Legitimate involvement of actors at various scales (2)
- Be as open and unbiased as possible (3)
- Be as imaginative as possible

#### Periphery (none listed)

#### **Comments**

- 1. Creating new meaning / understanding through deliberative process!
- 2. What is legitimate? What is involvement?
- 3. Accept bias of others as much as your own

#### **Group 2**

#### Core

- Humility
- Collaborative
- Gender equality / equity (1)
- Fairness (2)



- Alterity
- Address to rectify differing beliefs, values, knowledge
- Recognize (to relieve) conceptual tensions
- Facilitating the invisible to become visible (e.g. culture) (3)

#### **Periphery**

- Address time frame changes
- Equality between disciplines (4)
- Recognize tensions
- Context specific
- Address issues of scale
- Build research questions together. Define the problems together. (5)
- Consilience convergence of evidence

#### **Comments**

- 1. Compromise But stick to the objective
- 2. Communicate clearly
- 3. Different perceptions of fairness (2)
- 4. Culture is invisible? (3)
- 5. Don't forget about class, ethnicity (1)
- 6. But are there inappropriate disciplines for some problems/questions? (4)
- 7. How far in the research process should ALL stakeholders participate? (5)

#### **Group 3**

#### Core

- Seek for a common language (3)
- We need to respect other stakeholder interests (1)
- To value differences of knowledge
- Rotating leadership for problem solving
- To understand the importance of different disciplines and local knowledge
- Ability to compromise (core and periphery) (2)

#### **Periphery**

- Ability to compromise (core and periphery)
- We have to break common disciplinary boundaries
- We have to find the strengths of different disciplines (4)
- Not only academia but also the voice of the people
- Knowledge sharing across the world





#### Comments

Peer to peer learning

- 1. Who gets to be a stakeholder? What about destructive / unequal ones? (1)
- 2. But stick to the objective (2)
- 3. Translation services (3)
- 4. And use them (4)

#### **Group 4**

#### Core

- Co-production, co-design of research question / methods
- Enhancement of existing disciplinary research (1)
- Respect among disciplines (beyond community, government respect) (2)
- Knowledge → need to go beyond standard scientific (academic) knowledge
- Recognizing any context's existing power relations in knowledge production



#### Periphery

• Methodological attention paid to WHO is a stakeholder

#### Comments

- 1. Innovating on disciplinary contributions (1)
- 2. And among knowledges (2)
- 3. Be human
- 4. Think outside of the circle

#### **Group 5**

#### Core

- Start with the problem (1)
- Freedom to pursue (2)
- Be nice (3)
- Reciprocate take a democratic approach
- Be open-minded
- Engage with humility
- Apply to real cases (problems/solutions)
- Be disciplined (explicit) about modalities of transdisciplinarity



#### **Periphery**

- Collaborate with everyone Teamwork!
- Understand systems
- Engage diverse perspectives and expertise
- Respect different opinions and approaches (4)
- Communicate clearly
- Be conscious of discipline specific terminology
- Seek clarity of concepts
- Engage individual disciplines

#### **Comments**

- 1. Evidence based (1)
- 2. How much freedom is useful? (2)
- 3. © (3)
- 4. But take the right one (4)
- 5. Team approach

#### **Group 6**

#### Core

- Respect for other disciplines (1)
- Team work across disciplines (2)
- Promote effective communication between disciplines
   (3)
- Learning common language
- Commitment (4)

#### **Periphery**

- Stakeholder involvement. Traditional knowledge (5)
- Have a common goal
- Needs a leader/champion (6)

#### Comments

- 1. And knowledges (1)
- 2. Applied working groups (2)
- 3. Promote and develop (3)
- 4. To whom? (4)
- 5. Willingness (5)
- 6. "Coach"

How do we choose a leader and from which discipline should he/she be from? (6)

7. Observe the problem and the approach



#### **Group 7**

#### Core

Context is the core (1) (2)

#### **Periphery**

- Fill in the gaps within disciplines, not challenging the strengths
- Adaptability changing
- Problem bases
- Opportunity oriented focus on creativity and innovation (not problem solving) (3)
- Transparent Common Ground
- Balance
- What emerges from interdisciplinary collaborations
- Holistic
- Respectful inclusion of knowledge
- Beyond disciplines
- Mobilizing connections
- Unbounded
- Multiple scales (simultaneous) multiple perspectives connect

#### **Comments**

- 1. Premise Context is always created by whom receives the message (1)
- 2. But how do we use the context (2)
- 3. Are problems the highest priority opportunity to pursue? Is this just framing? (3)

#### **Discussion: Core Principles**

A brief discussion allowed participants to identify those core principles that they felt were particularly relevant or raised questions/concerns.

- Stakeholders who are they, how do we identify
- Question: how do these principles differ from discipline specific
- Inclusive of different ways of knowing, includes broader selection of actors from the life world
- Scale influences the decision on who are stakeholders
- Difficult to define the stakeholders without considering the context.
- Naturalism
- Common ground of learning
- Certain values and principle of science
- Transparency
- Evidence
- Partnerships



- What sequence should we consider when approaching should we start with transdisciplinary
- Skill set recognize the different players, all with a common goal and guiding vision team approach
- Honour and respect the contributions of all involved
- Compromise
- Open-mindedness
- Sewing all the disciplines connected towards a common objective coordinated effort
- Start with a problem involves a wider audience than what might be considered on first glance
- "We need a coach". We are players, and we are coaches... leadership
- Stakeholders different stakeholders have different "stakes"
- Governing body
- Who is the referee? Who takes charge?

# **Exercise 3: Transdisciplinary Fisheries Course and Capacity Development Initiatives Toolkit**

### Transdisciplinary Fisheries Course - Summary

#### **Course objectives / goals**

- 1. Ability to do transdisciplinary research in academic and in practice
- 2. Understand different disciplines required to allow for better decision making processes
- 3. Critical thinking
- 4. Understand semantics or ontology's of descriptions
- 5. Apply a transdisciplinary approach

#### **Suggestions for topics for inclusion**

- Theory of transdisciplinary research (why and how)
- Survey of disciplines relevant to fisheries context
- Philosophy of science
- Critical theory
- Fisheries science
- Fisheries management
- Economics
- Ecology
- Ecological health and capacity
- Environmental science
- Social science
- Social learning methodologies

- Research methodologies
- Fisheries governance/management
- Context
- Social and cultural perspective
- World vision, not only local/community vision
- Clarification of information common language
- Linkages between SSFishers, SSFisheries, and ecosystems
- Adaptive process
- Monitoring
- Sharing knowledge
- Stakeholder analysis
- Group participation and deliberation
- Participatory planning
- Trust building deliberative dialogue --- workshop

#### **Course delivery strategies**

- 1. Interactive learning
- 2. Field visits to industry
- 3. Analysis of different real case studies per subjects bring in speakers group projects
- 4. Course online for one semester
- 5. Mind maps use techniques to appeal to different student types use scope of tools
- 6. Fisherman teachers that teach about problems and the local solutions that they use to solve them
- 7. Day out on a boat fishers
- 8. Specialist in their field participate in teaching the course including a fisher person
- 9. Have a "coach" to approach the course from the broad perspective
- 10. Link baseline studies

#### Capacity Development Initiatives – Toolkit – Summary

#### **Processes**

- Establish timeframe and risks
- Consider budget concerns best value
- Confirm group participation
- Understand context
  - Stakeholder analysis
  - Different perspectives
- Participatory planning
- Consider risk management
- Establish local partnerships and long term involvement
  - Build trust
- Develop a social network and power analysis

- o Sharing knowledge traditional/ecological knowledge included
- o Make sure everyone is heard
- Monitoring

## **Approaches**

- empathy building exercises
- case studies
- Group work
- Role play exercises

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