THE MEANING OF SMALL
Diverse values of small-scale fisheries
Diverse values of small-scale fisheries

48 contributors
21 countries
5 regions
32 case studies
mall-scale fisheries are part of the land-and-seascape that many people are familiar with, mostly because of their presence in, and proximity to, places where tourism and recreational activities take place. Yet, unless one grows up in a fishing village, or comes from a fishing family, it is hard to fully appreciate the real meaning of small-scale fisheries. Small-scale fisheries are certainly not just a part of history, culture, and heritage that needs to be preserved like some people may think. Their values go beyond providing food, income, jobs, and livelihoods. What makes small-scale fisheries unique are the diverse values and meanings that are inherent to them, as well as those that they bring to society.

Our knowledge about the values of small-scale fisheries is very limited, partly because some of these values are non-monetary. Thus, small-scale fisheries are often regarded as insignificant. This photo e-book aims to change such a worldview by presenting the meaning, values, and importance of small-scale fisheries in various locations around the world, from the perspective of the people working closely with them. As we study values, we gain appreciation for what matters to people and what is desirable to the society. Ultimately, a comprehensive understanding of the diverse values of small-scale fisheries can lead to an improved management and governance of the fisheries resources and the ecosystems.
The photo e-book is an initiative of the Too Big To Ignore - Global Partnership for Small-Scale Fisheries Research (TBTI; toobigtoignore.net). Working with researchers and practitioners in partnership with fishers’ associations, community-based organizations, environmental groups, and governments, TBTI examines small-scale fisheries in local, national and global contexts. The goal of TBTI is to identify key concerns affecting small-scale fisheries, stimulate a concerted research effort to address them, and direct policy attention to this vital sector in order to raise its profile. ‘The Meaning of Small - Diverse Values in Small-Scale Fisheries’ photo e-book is another step in that direction.

Through this publication, the TBTI network aims to advance the understanding about the diverse values of small-scale fisheries and engage the wider public in the conversation about the multifaceted meanings of small-scale fisheries. The photo e-book poses the question: what is the breadth of contributions for which small-scale fisheries are valued in their communities across the globe? We portray the plethora of these core values by using visual stimuli such as infographics and photos as a way to convey what small-scale fisheries mean in particular places.
The information contained in this photo e-book is a product of a close collaboration amongst TBTI members, partners and supporters of small-scale fisheries. They contributed their knowledge and experience about fishers, communities, and places that they are familiar with. They did so by identifying, through a rapid assessment survey, the range of values associated with a small-scale fishing community that they know, as well as the ecological, social and economic contexts of small-scale fisheries in each location.

The 48 contributors to the e-book are experts in the field of small-scale fisheries research and practice, and have an average of 10 years of experience in this topic. They are affiliated with 32 different institutions, which can be roughly divided into universities (67%), research institutes (15%), non-governmental organizations (NGOs) (12%), fishers’ associations (4%), and government (2%).
Contributors were asked to rank 15 value types (based on Song and Chuenpagdee 2015) associated with small-scale fisheries, on a scale of zero to five, with zero meaning that the particular type of value is not important for small-scale fisheries in that location, and five indicating that the value presents a very high importance in terms of the contribution to small-scale fisheries. They also provided a photo and a story that best represent the meaning of small-scale fisheries in their location.

15 value types that represent the meaning and contribution of small-scale fisheries

<table>
<thead>
<tr>
<th>Ecological conservation</th>
<th>Responsible governing system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict resolution</td>
<td>Community cohesion</td>
</tr>
<tr>
<td>Sense of freedom</td>
<td>Recruitment of youth</td>
</tr>
<tr>
<td>Enhanced knowledge</td>
<td>Compliance of rules and regulations</td>
</tr>
<tr>
<td>Wellbeing and material wealth</td>
<td>Gender equity</td>
</tr>
<tr>
<td>Enjoyment and pleasure</td>
<td>Fair distribution of benefits</td>
</tr>
<tr>
<td>Livelihood security</td>
<td></td>
</tr>
<tr>
<td>Sufficient catch and lifestyle</td>
<td></td>
</tr>
<tr>
<td>Sense of pride</td>
<td></td>
</tr>
</tbody>
</table>

The photo e-book includes a total of 32 case studies describing the values of small-scale fisheries in 21 countries located across five regions. About 34% of these case studies originate from Asia and Oceania, followed by Latin America with 28%, and Africa, Europe and North America accounting for almost 13% of the total number. The specific case studies come from the following countries and locations: Bangladesh (Meghna River Estuary), Brazil (Teotônia Waterfall, Pernambuco, Ubatuba and Pontal do Paraná), Canada (Lake Winnipeg and Bay de Verde), Costa Rica (Playa Lagarto), Ecuador (Mainland and Galapagos Islands), Finland (Merikarvia), Greece (Skala Kallonis Bay), India (Gir Somnath), Indonesia (Southwestern Kei Islands and Flores Island), Japan (Kamakura Bay and Suruga Bay), Madagascar (Sainte Luce), Maldives (Laamu Atoll and Fuvahmulah), Mexico (Holbox Island), Mozambique (Sofala Bank), Philippines (Aklan and San Mariano), Portugal (Azores), Republic of Kiribati (Tarawa Island), South Africa (Struisbaai), Spain (Cabo de Palos), Tanzania (Busekera Village), and USA (Sitka and Cook Inlet).
How to navigate through 'The Meaning of Small' photo e-book

The photo e-book is divided into five parts, presenting the diverse values of small-scale fisheries by region: (I) Latin America, (II) North America, (III) Asia and Oceania, (IV) Africa, and (V) Europe. Each part contains a collection of case studies depicting the importance of small-scale fisheries based on the rating of the value types, accompanied by a photo and a caption that highlights the meaning of small-scale fisheries in a particular place, community, or fishery. Each case study also contains the key characteristics of small-scale fisheries, such as the ecosystem type, main gear, target species, vessel type, number of vessels, and number of fishers.
The photo e-book is a rich composite of stories about the people and the aquatic environment, of the intricate interrelationship, and of the complex values associated with small-scale fisheries. It is an attempt to make explicit the values of small-scale fisheries, which are either unnoticed or under-appreciated. It is hoped that this type of knowledge gets incorporated into the design of appropriate institutions, daily decision-making, as well as in broader considerations of governance. Through this work, the TBTI partnership and its members aspire to further the understanding of the diverse values of small-scale fisheries, and share it with the general public, raising therefore the visibility of this vital sector.

If you are keen to tell the world about the small-scale fisheries that you are familiar with, please complete the rapid assessment survey at http://toobigtoignore.net/researchcluster/diverse-ssf-values/. Your case study will be included in the 2nd edition of the photo e-book publication, which will be disseminated at the 3rd World Small-Scale Fisheries Congress, to be held in Chiang Mai, Thailand, in October this year https://toobigtoignore.wixsite.com/3wsfcongress.

Editors: Mirella de Oliveira Leis Ratana Chuenpagdee
# Table of Contents

**Part 1 - The meaning of small in Latin America**

**Chapter 1**  
Small-scale fisheries of Cachoeira do Teotônio, Porto Velho, Brazil  
Carolina Rodrigues da Costa Doria

**Chapter 2**  
Clam and shellfish fishery, Pernambuco State, Northeast Brazil  
Sérgio Macedo Gomes de Mattos

**Chapter 3**  
‘The waves wash our problems away’ - Caiçara community in Ubatuba, Southeastern Brazil  
Marta Collier Ferreira Leite and Derek Johnson

**Chapter 4**  
‘Faith in God, my family and my boat, what else could I ask for?’ - Caiçara community in Ubatuba, Southeastern Brazil  
Marta Collier Ferreira Leite and Derek Johnson

**Chapter 5**  
Artisanal fisheries of Pontal do Paraná, Paraná State, South Brazil  
Mirella de Oliveira Leis

**Chapter 6**  
Small-scale fisheries of Playa Lagarto, North Pacific, Costa Rica  
Helven Naranjo-Madrigal
Chapter 7
Small-scale fisheries in Galapagos Islands, Ecuador
Maria José Barragán-Paladines

Chapter 8
Small-scale fisheries in mainland Ecuador
Maria José Barragán-Paladines

Chapter 9
Small-scale fisheries at Holbox Island, Mexico
Nadia T. Rubio-Cisneros, Marcia Moreno-Baez, Andrea Sáenz-Arroyo, Jeffrey Glover, and Dominique Rissolo

Part II - The meaning of small in North America

Chapter 10
The tragedy of commercial fishing quotas in Lake Winnipeg, Canada
Durdana Islam and Fikret Berkes

Chapter 11
Inshore fisheries of Bay de Verde, Newfoundland, Canada
Joonas Plaan

Chapter 12
Sustainable fisheries in Sitka, Alaska, United States of America
Alyssa Russell and Linda Behnken

Chapter 13
The Upper Cook Inlet set net fishery, Alaska, United States of America
Philip Loring
Part III - The meaning of small in Asia and Oceania

Chapter 14
Nomadic fishers in the Meghna River Estuary, Bangladesh
Mohammad Mahmudul Islam

Chapter 15
Small-scale bag net fisheries of Gir Somnath, Gujarat State, India
Rajib Biswal

Chapter 16
Small-scale flying fish roe fishery, Southwestern Kei Islands, Indonesia
Dirk Steenbergen

Chapter 17
Small-scale purse seine fishery, Wuring, Flores Island, Indonesia
Frances Every

Chapter 18
Small-scale fisheries of Kamakura Bay, Japan
Tamano Namikawa

Chapter 19
Sakura shrimp small-scale fishery in Suruga Bay, Japan
Yinji Li

Chapter 20
Lagoon fisheries of Tarawa Island, Republic of Kiribati
Brooke Campbell, Aurélie Delisle, and Quentin Hanich
Chapter 21
'A way of life', Laamu Atoll, Maldives
Juliette Tunstall and Alice Miller

Chapter 22
'The daily tuna run', Fuvahmulah, Maldives
Juliette Tunstall and Alice Miller

Chapter 23
Artisanal fishing in Batan Estuary, Aklan Province, Philippines
Alice Joan Ferrer, Leah Araneta, Gay Defiesta, Cristabel Parcon, Hanny John Mediodia, Jinky Hopanda, and Satoshi Ishikawa

Chapter 24
Freshwater fish sanctuaries, municipality of San Mariano, Philippines
Jan Van der Ploeg

Part IV - The meaning of small in Africa

Chapter 25
Sainte Luce lobster fishery, Madagascar
Stephen Long

Chapter 26
Zalala beach small-scale fishery, Sofala Bank, Mozambique
Jessica Blythe

Chapter 27
Small-scale fisheries of Struisbaai, Western Cape, South Africa
Kashiefa Parker
Chapter 28
Dagaa fishery in Busekera village, Lake Victoria, Tanzania
Joseph Luomba

Part V - The meaning of small in Europe

Chapter 29
Small-scale fisheries of Merikarvia, Finland
Pekka Salmi

Chapter 30
Small-scale fishery of Skala Kallonis, Kaloni Bay, Lesvos, Greece
Eirini Ioanna Vlachopoulou and Seishiro Sakita

Chapter 31
Artisanal fishing community, Azores, Portugal
Alison Neilson and Rita São Marcos

Chapter 32
Small-scale fisheries of Cabo de Palos, Islas Hormigas MPA, Spain
Miguel Lorenzi
Artisanal fishing community, Azores, Portugal

Alison Neilson & Rita São Marcos
Centre for Social Studies, University of Coimbra

"Artisanal fishing occurs in all nine of the Azorean Islands, Portugal, located in the mid-Atlantic Ocean. Differences exist between the islands related to the role of women in fishing; from financial management of the boats to preparing the gear or even going to sea. Associations such as Ilhas em Rede, with members from all nine islands, and AMPA - Association of Wives of Fishers and Boat Owners of Terceira Island, work to understand and improve the role and visibility of women in fishing."

**SMALL-SCALE FISHERIES CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Ecosystem type</th>
<th>marine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main gear</td>
<td>hook and line; traps; 'gamelas'</td>
</tr>
<tr>
<td>Target species</td>
<td>tuna; red seabream, 7m</td>
</tr>
<tr>
<td>Vessel type</td>
<td>fiberglass, 7m</td>
</tr>
<tr>
<td>Number of small-scale fishers</td>
<td>3222</td>
</tr>
<tr>
<td>Number of small-scale fishing vessels</td>
<td>599</td>
</tr>
</tbody>
</table>

**DIVERSE SMALL-SCALE FISHERIES VALUES**

- Ecological conservation
- Conflict resolution
- Sense of freedom
- Enhanced knowledge
- Wellbeing and material wealth
- Livelihood security
- Enjoyment and pleasure
- Sufficient catch and lifestyle
- Sense of pride
- Responsible governing system
- Community cohesion
- Recruitment of youth
- Compliance of rules and regulations
- Gender equity
- Fair distribution of benefits