

Join us in Japan for the
SSF Regional Symposium for Asia-Pacific!

April 9-12, 2024 | Shizuoka, Japan



2024 SSF REGIONAL SYMPOSIUM SERIES

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2024 Regional Symposium Series

Proceedings

Small-Scale Fisheries Regional Symposium for Asia-Pacific

‘Bright Spots ~ Hope Spots’

April 9-12, 2024

Shizuoka City, Japan

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International Planning Committee

Yinji LI (Co-Chair), Tokai University, Japan

Ratana CHUENPAGDEE (Co-Chair), Memorial University/TBTI Global, Canada

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Tamano NAMIKAWA, Japanese Institute of Fisheries Infrastructure and
Communities, Japan

Suvaluck SATUMANATPHAN, Mahidol University, Thailand

SYMPOSIUM PROGRAM

All sessions will be held at Terrsa Hall.

All time shown in Japan Standard Time.

Short presentations are indicated with [S]

Please be advised that there is no internet access at the venue.

TUESDAY, APRIL 9th – DAY 1

REGISTRATIONS

Tuesday, April 9th, 08:30- 08:45

WELCOME AND OPENING

Tuesday, April 9th, 8:45– 9:00

SESSION 1: SMALL-SCALE FISHERIES GUIDELINES

Tuesday, April 9th, 9:00– 10:30

Chair: Ratana Chuenpagdee

Speakers:

- **Nicole FRANZ**, FAO, Italy
The first decade: Implementing the SSF Guidelines in the Asia-Pacific region
- **Asuncion DE GUZMAN (R)**, MSU Naawan Foundation for Science and Technology Development, Inc., Philippines
Adopting the SSF Guidelines in Philippine artisanal fisheries: Building

local capacity toward improving fisheries governance

- **Yin NYEIN (R)**, FAO, Myanmar
Myanmar's fishery governance in political turmoil: Impact, adaptation, and sustainability
- **Akihiro YOSHINO**, Fishery and Ocean Bureau, Department of Economy Industry, Shizuoka Prefectural Government, Japan
The diversification of income resources by utilising "Umigyoe"

BREAK (10:30-11:00) REGISTRATION CONTINUED

SESSION 2: GENDER/WELLBEING/LIVELIHOODS

Tuesday, April 9th, 11:00– 12:30

Chair: Alyne Delaney

Speakers:

- **Pearl Aljean SANTACERA**, U. of the Philippines Visayas, Philippines
Portrait of small-scale fisheries in the Philippines
- **Liberty ESPECTATO**, U. of the Philippines Visayas, Philippines
Fishers' migration and its impact on socio-cultural identity and small-scale fisheries management in Southwest Panay, Philippines
- **Mary Barby BADAYOS-JOVER**, U. of the Philippines Visayas, Philippines
The well-being narratives of small and remote island fishing communities in the covid-19 pandemic: Between challenges and opportunities
- **Miyu MURAOKA (S)**, Tokai University, Japan
Solutions for gender injustices in Japanese fisheries: The story of Ama woman diver in Sugashima Island, Mie

LUNCH (12:30-13:30)

SESSION 3: DRIED FISH MATTERS

Tuesday, April 9th, 13:30– 15:00

Chair: Suvaluck Satumanatpan

Speakers:

- **Derek JOHNSON**, Dried Fish Matters / University of Manitoba, Canada
Bright spots in the social economy of dried fish in Asia
- **Raktima GHOSH**, Indian Institute of Technology, India
Practices, relations, and risks: On a 'social economy' of dried fish in the submerging Sundarbans
- **Tara NAIR**, Work Fair and Free Foundation, India
Trapped in a gulf of hope and despair: The wagher small scale fisheries on the Kutch Coast of Gujarat, India
- **Tanzina NAZIA**, Comilla University, Bangladesh
Debunking the myths of 'Dadon' in small-scale fisheries of Bangladesh
- **Nova ALMINE**, Memorial University, Canada
Unveiling the dynamics of Thailand's dried fish sector

BREAK (15:00-15:30)

SESSION 4:

PANEL PRESENTATION & ROUNDTABLE DISCUSSION – 'SHARING BRIGHT SPOTS & HOPE SPOTS & HIGHLIGHTS FROM TBTI HUBS'

Tuesday, April 9th, 15:30– 17:00

Chair: Ratana Chuenpagdee

WELCOME DINNER (17:30-20:30)

Terrsa Hall

We'll enjoy some local delicacies

&

celebrate the 4th anniversary of TBTI Japan (with a cake!)

WEDNESDAY, APRIL 10th – DAY 2

SESSION 5: GOVERNANCE

Wednesday, April 10th, 9:00– 10:30

Chair: Mahmud Islam

Speakers:

- **Marc FRUITEMA**, Planet Indonesia, Indonesia
Positively perceived but worrying trend: A holistic evaluation of five years of community led small-scale fisheries management efforts in Kubu Raya, West Kalimantan, Indonesia
- **Thaung HTUT**, Myanmar Biodiversity Fund, Myanmar
Bright spots small-scale fisheries in Myanmar: shining light on coastal fisheries co-management practice
- **Shuhei OHNISHI**, Tokai University, Japan
How can cooperative systems be classified in small-scale fisheries?
- **Medha A. SATHI**, Centre for Economic and Social Studies, India
The contested commons: Challenges and realities of access to livelihood spaces
- **Alayna YNACAY-NYE**, Nagasaki University, Japan
How power dynamics shape rural coastal development strategies: The case of land reclamation at Isahaya Bay, Nagasaki Prefecture

BREAK (10:30-11:00)

SESSION 6: BLUE JUSTICE

Wednesday, April 10th, 11:00– 12:30

Chair: Alice Ferrer

Speakers:

- **Jewel DAS**, ZTM & U. of Bremen, Germany/ Institute of Marine Sciences, Bangladesh
Just and safe space for small-scale fisheries in blue economy development: Experiences from southeast coastal Bangladesh
- **Xu WEI (S)**, Tokai University, Japan
Better solutions for coping with injustices regarding the Ipponzuri tuna fisheries on Iki island
- **Genna SEROFIA**, U. of the Philippines Visayas, Philippines
Achieving sustainable fishing practices: the importance of small-scale fishers in the implementation of fisheries laws and policies in southern Iloilo, Philippines
- **Jem Celyne FERRER**, U. of the Philippines Visayas, Philippines
Visibility of Small-Scale Fisheries in online stories of local media outlets in Western Visayas, Philippines
- **Maria Theresa MUTIA**, National Fisheries Research and Development Institute, Philippines
Towards a sustainable tawilis fishery in Lake Taal, Philippines

LUNCH (12:30-13:30)

SESSION 7: VULNERABILITY TO VIABILITY (1)

Wednesday, April 10th, 13:30– 15:00

Chair: Gazi Islam

Speakers:

- **Yinji LI (S)**, Tokai University, Japan
Securing Justice in the Era of Big Change: Eight Principles for Implementing Umigyo

- **M. Mahmudul ISLAM**, Sylhet Agricultural University, Bangladesh
Social innovation for small-scale fisheries governance in Bangladesh
- **Poulami GHOSH**, Indian Institute of Technology Kharagpur, India
Perceived inequalities & injustices: Hopeful transitions to viable trajectories in the Indian Sundarbans Delta
- **Yinghao SONG (S)**, V2V Global Partnership / U. of Waterloo, Canada,
Lessons learnt from Japan to improve pescatourism focusing on justice

BREAK (15:00-15:30)

SESSION 8: VULNERABILITY TO VIABILITY (2)

Wednesday, April 10th, 15:30– 16:30

Chair: Kungwan Juntarashote

Speakers:

- **Suvaluck SATUMANATPAN**, Mahidol University, Thailand
Regulatory injustice and small-scale fisheries: An examination of challenges and solutions
- **Gazi Md Nurul ISLAM**, Universiti Tun Abdul Razak, Malaysia
Community perspectives of distributional equity for livelihoods of small-scale fishers in Perhentian marine protected areas in Malaysia
- **Navya Vikraman NAIR (S)**, University of Waterloo, Canada
Blue (in)justices in small-scale fisheries: Resilience and hope in the transformation

SPECIAL SESSION: COLLECTIVE ART MAKING

Wednesday, April 10th, 16:30– 17:00

Kelly Jane Bruton, Artist-in-Residence, Fishing for Success

THURSDAY, APRIL 11th – DAY 3

SSF Regional Symposium for Asia-Pacific Field trip 小規模漁業リージョナルシンポジウム・アジアパシフィック フィールドトリップ

The symposium will include a field trip to the Yui Fisheries Cooperative Association (FCA) in Yui fishing community, Shizuoka Prefecture. The Yui area is well known for the Sakura (cherry blossom) shrimp fishery in Japan. Called the Jewel of Suruga Bay, Sakura shrimp has long been an important fishery species and an essential resource of the local economy, and the FCA of Yui plays a vital role in fishery management and community revitalization.

***Meeting point and time: 7:00 (sharp!) at JR Shimizu Station East Exit

Date: April 11, 2024 (Thursday) 7:00-17:00 /

日程：2024年4月11日（木）7時-17時

Place: Yui Fisheries Cooperative Association (FCA)

場所：由比港漁業協同組合他

- 7:00** Meet at JR Shimizu Station East Exit
JR清水駅東口（みなと口・ローターリー）集合
- 7:20** Arrive at Yui FCA（由比港漁協着）
- 7:30 - 9:00** FCA market tour（漁協市場入札・セリ見学）
- 9:00 - 11:00** Learn about fish cleaning and cooking & let's eat it (fish brunch)（魚料理、魚食）
- 11:00-11:30** FCA introduction（漁協の概要紹介）
- 11:30-12:30** Fishers' panel（漁業者パネル）
- 12:30-14:00** Visit Sakura shrimp sun-drying place（桜えび天日干し場見学）
- 14:00-15:30** Visit Seikenji Temple（清見寺見学）
- 15:30-16:50** Visit S-PULSE Dream Plaza for shopping（エスパルスドリームプラザ）

17:00 Arrive at JR Shimizu Station (清水駅着)

*** Changes may be made to the program if it is not possible to visit the Sakura shrimp sun-drying place due to weather conditions ***

FRIDAY, APRIL 12th – DAY 4

SESSION 9: TD/Innovation

Friday, April 12th, 9:30– 10:30

Chair: Ryutaro Kamiyama

Speakers:

- **Alyne DELANEY**, Tohoku University, Japan
Riding Rising Tides: the importance of environmental education and trans-disciplinary research for sustainability in coastal Japan
- **Suzuki WAKAKO**, SHICHIGAHAMA Tourism, Japan
Children's octopus fishing experience
- **Martin PURVES**, International Pole & Line Foundation
Empowering small-scale fisheries to be part of global tuna supply chains

BREAK (10:30-11:00)

SESSION 10: CLIMATE, SAFETY, AND RESILIENCE

Friday, April 12th, 11:00– 12:30

Chair: Hogeun Jang

Speakers:

- **Hanan H. S. Al BALSUHI**, Pukyong National University, South Korea

Assessing the productivity of small-scale fisheries in Oman and their response to climate variability

- **Ryutaro KAMIYAMA**, Japan Fisheries Research & Education Agency
Fisheries mutual aid system in Japan: Role in mitigating climate change impact on small-scale fisheries
- **Miku NARISAWA**, Tohoku University, Japan
Impact of reciprocal relationship between fisheries and the ocean on climate resilience: A case study of fishermen's environmental education initiatives in Higashimatsushima City, Miyagi Prefecture
- **Kimberly ORREN**, Fishing For Success, Canada
Utilizing your community's fishing heritage to empower young people and create transformative tourism experiences
- **Wildan Turmudi GHIFFARY**, Global Fishing Watch, USA
Transparency and innovation in small-scale fisheries: Co-management of data and governance for small-scale fisheries management

LUNCH (12:30-13:30)

SESSION 11: SUSTAINABILITY/CONSERVATION

Friday, April 12th, 13:30– 15:00

Chair: Mahmud Islam

Speakers:

- **Ruby NAPATA**, U. of the Philippines Visayas, Philippines
Bivalve aquaculture in the Philippines: The case of small-scale mussel farmers' organizations in promoting sustainable and responsible fisheries
- **Akito SATO**, Tokyo U. of Marine Science and Technology, Japan
Japanese experiences on coastal fishing ground management for small-scale fisheries

- **Ariel SEFIL**, U. of the Philippines Visayas, Philippines
Small-scale sardine fisheries: The case of small island fishing community in Northern Iloilo, Philippines
- **Rina YAMAJI (S)**, Tokai University, Japan
The bright spot for Ainan community: A quick scan on Umigyo initiative
- **Jose Marie ESLOPOR [S]**, U. of the Philippines Visayas, Philippines
Understanding small-scale fisheries and ecotourism management in Barangay Culajao, Roxas City, Capiz, Philippines

BREAK (15:00-15:30)

SESSION 12: ROUNDTABLE ON ‘REGIONAL COLLABORATION AND FUTURE PROSPECTS’

Friday, April 12th, 15:30– 17:00

Chair: Ratana Chuenpagdee

CLOSING REMARKS – Yinji Li

Friday, April 12th, 17:00– 17:15

Abstracts

The Contested Commons: Challenges and Realities of Access to Livelihood Spaces

Ajayan Sathi, Medha, Centre for Economic and Social Studies (CESS),
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People who live in the economic and social margins of society and the environmental margins, who also end up in the margins of the least importance to the power, are the most vulnerable to losing spaces of their lives and livelihood. Small-scale fishing communities, which form a substantial component of global fisheries, are among the most vulnerable communities gradually losing their livelihood spaces due to various political, economic, social, and ecological reasons. Their life and livelihood are economically, socially, and culturally rooted at the coasts, and it is found that their common spaces have been waning due to various reasons. Examples from the fishing villages of the Southern coastal states of India prove that to be true. This paper uses primary data collected from the small-scale fisherfolk of the Southern coasts of India to understand the realities of access to the livelihood spaces of small-scale fisheries. The study analyses the heterogeneity in access to livelihood spaces among small-scale fisheries and their economic, social, and ecological consequences. The paper tries to examine various characteristics of small-scale fisherfolk households and its intersection that makes them vulnerable to the changes in access and availability of livelihood spaces over the years. It puts forward perspectives of the resource users on sustainable and equitable governance of these resources and analyses the conflicts present within those perspectives. The paper tries to convey that group heterogeneity and household heterogeneity in access to spaces have a negative effect on the sustainability of small-scale fisheries.

Keywords: Small-scale fisheries, Livelihood spaces, Sustainability

Assessing the productivity of small-scale fisheries in Oman and their response to climate variability

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Ho Geun Jang, Pukyong National University, South Korea

Small-scale fisheries in Oman significantly impact the nation's economy, food security, and the livelihoods of coastal communities. Understanding their productivity and adaptability to climate change is crucial for sustainable marine resource management. This study aimed to assess small-scale fisheries' productivity across six coastal regions in Oman using the DEA window analysis method, widely known for analyzing efficiency and providing useful implications for the management of input factors. The primary results showed varying efficiency scores across different time windows, reflecting fluctuations in productivity due to the impacts of climate change in the six coastal regions. There was a significant rise in productivity during periods of low precipitation in recent years, while temperature showed no significant influence on the productivity of small-scale fisheries in the regions. It is highly recommended to include climate change and variability in fisheries management models to mitigate the consequences of climate variability on fisheries-dependent livelihoods. These findings will serve as a keystone for shaping policies and initiatives vital for the long-term viability of small-scale fisheries, ensuring their continuous socio-economic and environmental contributions to Oman. This study provides practical insights into applying the DEA window analysis technique for assessing small-scale fisheries' productivity, offering a roadmap for future research and enabling targeted policy interventions and adaptive strategies in the face of climate change.

Keywords: Small-scale fisheries, climate change, productivity

Unveiling the dynamics of Thailand's dried fish sector

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Suvaluck Satumanatpan, Mahidol University, Thailand

Kungwan Juntarashote, TBTI Thailand

Tassanai Praditsuwan, Kasetsart University, Thailand

Dried fish is vital for food security and is culturally significant, particularly in Asia, but has been historically overlooked. A study on the dried fish value chain in Thailand was therefore conducted to understand the role of dried fish in supporting livelihoods and generating income, linking it to the broader socioeconomic landscape. Challenges and opportunities facing the sector were also investigated. Through a scoping study, online survey, and interviews with fishers, dried fish vendors, and governments authorities the research reveals resilience of fishing communities in the face of challenges, highlighting their determination and adaptability to changes in fishing regulations, especially those implemented in response to the European Union's yellow card. Dried fish vendors also demonstrate their enduring commitment, adaptability, and optimism toward providing customers with sustainable supply of dried fish products, including during COVID-19 when sourcing of raw materials and distribution was obstructed. From the government perspective, there is a clear need for communication and collaborative approach to support local empowerment. Overall, the dried fish sector in Thailand portrays a dynamic, forward-looking entity committed to sustainability, viability, and growth.

Keywords: Value chain, dried fish, governance

The Well-being Narratives of Small and Remote Island Fishing Communities in the Covid-19 Pandemic: Between Challenges and Opportunities

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Raymundo R. Pavo, University of the Philippines Mindanao,
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This paper is based on a study looks into the three synergistic dimensions of material, relational and subjective well-being of small and remote fishing island communities in Northern Iloilo, Philippines, at the time of the COVID-19 pandemic. Through individual household-level interviews, focus group discussions and key informant interviews in eight remote small island fishing villages, the study generated the key challenges for every dimension of well-being. For material well-being, the study revealed that disruptions caused by COVID-19 pandemic have significantly burdened the remote island fishing villages with restricted livelihood opportunities, reduced income, and limited food access. For relational well-being, the study revealed that women in the small remote fishing island communities experienced exacerbation of their unpaid work burdens despite sharing that their relationships with spouses or life partners improved during the height of lockdowns. For subjective well-being, the study showed that community members at the time of the pandemic exercised agency in finding means to survive livelihood, health and education difficulties, and making the active choice of staying/living on the island. Taken altogether, the study results suggest a threefold opportunity for these remote small island fishing communities: (1) ascertaining material welfare and access to resources; (2) cultivating relational solidarity in terms of work assignment and responsibility in the household and community, and (3) clarifying and reflecting on subjective or personal values and principles in dealing with the challenges conditioned by disruptive events like pandemics.

Keywords: Well-being, pandemic, islands

Just and Safe Space for Small-scale Fisheries in Blue Economy Development: Experiences from Southeast Coastal Bangladesh

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The blue economy concept or ocean economy encompasses a wide range of activities along the coastline and in the sea. However, a noticeable disparity exists between global discussions on the blue economy and how individual countries plan and execute it. Bangladesh embraces the blue economy in its policy objectives and is channeling commercial investments into coastal and marine sectors. Exploring the southeast coast of Bangladesh, we find that Small-scale Fisheries are facing the challenges of displacement, dispossession, and access to resources, losing livelihood, further marginalization, and inequitable distribution of benefits in the context of blue growth. Moreover, inadequate compensation and adaptation measures for small-scale fisheries combine with heightened risks of eviction, intensifying grievances and leading to conflicts. This is particularly challenging when small-scale fisheries face encroachments on shared resources that are key for their livelihood strategies. It is crucial to reconsider governance approaches to ensure that blue justice and blue equity prevail for the coastal small producers, particularly small-scale fishers who are, given the chance, capable and prepared to form an essential part of the 'hope spots', the ocean requires with ever-growing urgency.

Keywords: Bangladesh, small-scale fishers, conflict

**Riding Rising Tides:
The importance of environmental education and
transdisciplinary research for sustainability in coastal Japan**

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Small-scale fisheries have historically been the life-blood of their respective communities, especially in Japan where more than 90% of fishers work in small-scale enterprises. As industrialization progressed, the impacts from land reclamation, port development, and pollution, combined with general societal change and the effects of warming ocean waters, have negatively impacted the fisheries and fishers' communities. Add to this, the impacts of the tsunami from the 2011 Great East Japan Earthquake and the "damage by rumors" from fears of radiation following the meltdown at a nuclear power plant, and coastal communities face a daunting number of issues. Yet small-scale fishers and their neighbors also make up "hope spots." Highlighting activities from Miyagi Prefecture in Northeast Japan, this presentation shows the variety of ways locals are leading the charge towards improved lives; including both being connected to the sea, and protecting their coasts and commons. Two types of activities in particular being presented include 1. tapping into their cultural identities as coastal communities through grass-roots-led environmental education; and 2. Collaboration and co-production of knowledge in trans-disciplinary research with marine biologists and anthropologists. Drawing upon the native concept of satoumi, and broadening thinking on the ways in which people can connect to the sea through education and new concepts like umigyo, the paper shows how combining LEK and eDNA data collection with oceanographic data could be used for models to better understanding oceanic conditions to improve fishing. Meanwhile oral history and education activities strengthen local ties with their coasts.

Keywords: Transdisciplinary research, satoumi, umigyo

Understanding Small-Scale Fisheries and Ecotourism Management in Barangay Culajao, Roxas City, Capiz, Philippines

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Grezi S. Cariaga, UPV IFPDS, Philippines

Mangroves are open ecosystems that have ecological, economic, and social importance to the community (Primavera, J.H., 2004). It provides habitat and breeding grounds among various aquatic species, and provides protection among communities against coastal surges. At the same time, it also provides social equity and livelihood opportunities among small-scale fishers. This study was conducted at Culajao Mangrove Eco Park in Roxas City, Capiz, Philippines. This ecopark has a rich biodiversity which benefits adjacent small-scale fishers through fisheries and ecotourism. Thus, led to the establishment of a local ordinance protecting it. This research described the socio-economic profile among small-scale fishers, and assessed the mangrove and fisheries ecopark management through rapid appraisal of fisheries

management systems (RAFMS) method. It also utilized secondary data collection, key informant interviews, and focus group discussions for data triangulation. Katunggan sa Culajao Salbaron Association, Inc. (KACUSA) is a community-based fisherfolk organization which was established to maintain and promote the said ecopark as alternative livelihood for the small-scale fishers in the community. However, this was able to identify several challenges including interpersonal (internal and external) differences among members, lack of support for infrastructure development and funding opportunities from the government, and the lack of financial transparency and literacy among members. This research recommends strengthening community participation and education in terms of fisheries management and biodiversity conservation. Furthermore, multi-stakeholder participation and collaboration, including NGOs, LGUs, and civil society organizations should be mainstreaming to provide a platform for socio-economic empowerment among small-scale fishers while promoting biodiversity conservation.

Keywords: SWOT, rapid appraisal, fisheries management

Fishers' migration and its impact on socio-cultural identity and small-scale fisheries management in Southwest Panay, Philippines

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Fishers' migration is a common phenomenon in small-scale fisheries across the world. It is part of the process of their struggle for survival and seeking out better livelihood opportunities. This paper examined the fisher's migration in Southwest Panay, Philippines, and how it has shaped the socio-cultural identity of the fishers, influenced small-scale fisheries management in the receiving area, and affected local resource access and utilization. This study was conducted in two municipalities in the province of Iloilo (Miagao and San Joaquin) and two in the province of Antique (Anini-y and San Jose de Buenavista) in Southwest Panay, Philippines. It utilized household surveys, key informant interviews (KII), and focus group discussions (FGD) as research methodologies. Results show that there are various push and pull factors that influence the fishers to transfer to other areas. Migrant fishers play a vital role in the local fishing economy, introducing new fishing gear and techniques that are usually more efficient than those of local fishers. However, being tagged as "outsiders," their ability to access political and economic resources has been largely limited. Migrant fishers should be treated as partners of the local community and must share the responsibilities of sustainable management of the fisheries resources.

Keywords: Migration, small-scale fisheries, Philippines

Visibility of Small-Scale Fisheries in online stories of local media outlets in Western Visayas, Philippines

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One of the challenges faced by the small-scale fishers in the country is IUU – they are invisible, underappreciated, and undervalued. One of the societal agents that has the potential to help make small-scale fishers visible and highlight their contribution to society is the media. This paper examines the extent to which local online media outlets have covered small-scale fishers and how they are portrayed in online media stories. This paper uses desk work to comb out online stories from local media outlets on small-scale fishers and fishworkers in Western Visayas, Philippines during the period that covers before the pandemic (2013-2019) and during the pandemic when they were called the “food frontliners” by the government (2020-2023). This also covers the nine years since the release of the SSF Guidelines. Data is organized as to frequency (number of stories), content (topics), tone (positive, negative, neutral), timing (near certain events or not), gender (featured is a man or woman, both), prominence (front page, inside page), type of story (news, feature). Results can help in designing strategies for media engagement for small-scale fisheries visibility, including a training guide on local media coverage of small-scale fisheries stories.

Keywords: Media outlets, online news, visibility

Portrait of Small-Scale Fishers in the Philippines

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In the Philippines, municipal, or small-scale fishing, makes important contributions to food and nutrition security, and livelihood but continues to be highly marginalized and vulnerable. There is a lack of reliable data on small-scale fisheries in the country and one of the sources of this concern is the definition of what a small-scale fisher is. The TBTI Philippines e-book Portrait of Small-Scale Fishers in the Philippines published by TBTI Global in 2023 was conceptualized to shed light on what a small-scale fisher is. This is the first book in the country that focused on the meaning of “small” or “small-scale” fishers and highlighted the contributions of small-scale fishers to the economy and society. The book featured 83 fishers (78 stories) from 125 contributors in 61 provinces and 2 cities across the 16 administrative regions. Among the featured fishers aged 20-82 years old with most in the 50–59-year-old range, the majority were males (88%). They mainly described themselves as a fisher using simple gears and small boats to fish nearshore, to bring home a small amount of catch which can provide food for their family and community. Small-scale fishers recognized their contributions yet faced various challenges including climate change and natural disaster vulnerabilities, illegal fishing, declining catch, encroachment of commercial fishers, displacement, and lack of support from concerned agencies. Highlighting their stories will hopefully gain the attention of policymakers and program managers to improve the governance of small-scale fisheries and to provide the right interventions to improve their well-being.

Keywords: TBTI Global, TBTI Philippines, small-scale fisheries

**The first decade:
Implementing the SSF Guidelines in the Asia-Pacific region**

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Maria Pastores, FAO, Philippines

Rebeca Andong, FAO, Philippines

Oscar Amarasinghe, Sri Lanka Ocean University, Sri Lanka

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2014 marked the endorsement of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines). 10 years after it is time to take stock if they make a difference in the Asia-Pacific region. This contribution will provide a review of implementation experiences at the regional and at the national level, from the perspective of FAO, academia and a small-scale fisheries support organizations. Cases will cover policy change in Sri Lanka and India, as well as the empowerment of small-scale fisheries actors in the region and in India. It aims to tease out lessons learned in terms of enabling and hindering factors, to inform the next decade of implementation.

Keywords: Small-scale fisheries Guidelines, policy, participation

Positively perceived but worrying trends; a holistic evaluation of five years of community led small-scale fisheries management efforts in Kubu Raya, West Kalimantan, Indonesia

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Effective small-scale fisheries management relies upon holistic approaches, community leadership and evidence-based planning to deliver sustained social, economic and environmental benefits. This research assessed the effectiveness of community-led mud crab fisheries management efforts in Kubu Raya, Indonesia from 2017 to 2023. We analyzed five years of catch monitoring data, fisheries independent data and the 2020 and 2022 participatory impact assessments. The fisheries analyses showed a statistically significant increase in the mean weight of crabs and the catch per unit effort of fishers from 2017 to 2023. However the mean carapace width of crabs was well below the national minimum size limit of 12 cm, indicating a large proportion of landings are immature and undersized. Conversely, results from the participatory impact assessments indicated that fishers perceived positive benefits as a result of management efforts. This presents a complex picture, whereby fisheries data and fisher perceptions tell a different story about the effectiveness of five years of fisheries management. While the fishery is economically important and its collapse would be damaging to local livelihoods, this is also a story of six communities with formal social forestry licenses, exercising their rights over mangrove forests and strengthening local governance. While the mud crab fishery is currently far from sustainable, the social and governance foundations are in place for effective and equitable fisheries management in the future.

Keywords: Governance, holistic evaluation, community

Transparency and Innovation in Small-Scale Fisheries: Co-Management of Data and Governance for Small-Scale Fisheries Management

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Small-scale fisheries account for 90% of the total number of people employed in fisheries globally and at least 40% of the global catch from capture fisheries. They play a critical role in the management of coastal resources, and the food security and nutrition of vulnerable coastal communities. Yet, the mechanisms that govern these fisheries are still weak because there is a lack of data, or where data exists it is not always accessible or utilised well for decision-making and management interventions. Collecting, sharing and using small-scale fisheries data is essential to ensure that fishers, traders and communities are able to make informed decisions about their fishing business and the management of the fishery. Collated data is crucial for evidence-based advocacy to support the prioritization and preference of these communities in management decision making and policy. Using technology to speed up the data cycle and support participatory engagement in these processes can be transformational for fisheries worldwide. Small-scale fisheries are an essential source of food and livelihood for many coastal communities, but they often face challenges in managing their resources sustainably. Data and innovation can play a significant role in addressing these challenges and improving sustainable management practices. However, sustainable fisheries management faces significant threats, including overfishing, habitat degradation, pollution and climate change. These threats are exacerbated by various factors such as the absence of regulations or regulatory loopholes, non-compliance with existing regulations, government subsidies and unsustainable fishing practices. In response to these challenges, artificial intelligence (AI) technologies like machine learning hold great promise for improving marine resource management by enabling more effective monitoring and surveillance of human activity and by increasing transparency. Global Fishing Watch (GFW), a data-driven transparency oriented non-profit, has partnered

with countries across Asia Pacific and globally to create a more complete understanding of fisheries activity throughout and outside their waters. Using satellite technology and cutting-edge AI applications, GFW's visualisation and analysis tools have supported governments in strengthening maritime monitoring, control and surveillance, increase transparency, and meeting sustainability goals. Drawing on case studies and data from GFW's small-scale fisheries project in Indonesia and Latin America, GFW's small-scale fisheries program aims to engage with a globally representative cross-section from the small-scale fishing sector to collaboratively formulate a set of transparency principles that enhance co-management, community-based management and encourage equitable and accountable fisheries governance. The principles will align with and support other global instruments including the SSF Guidelines, governance of marine tenure in small-scale fisheries and the implementation of Ecosystem Based Management.

Perceived Inequalities & Injustices: Hopeful Transitions To Viable Trajectories In The Indian Sundarbans Delta

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Life in Sundarbans stands at the risk-resilience interface; while various elements of risks and disruptions shape livelihoods of the small-scale fisheries, resilience has also become an encoded-embedded reality. The struggles of riverine-deltaic-communities dates back to the time of British-imperialism in undivided India; followed by several other chaotic political scenarios, culminating into waves of displacement and migration over the next century. While other elements of injustice being accomplished by the government officials and the powerful's in such small-scale business. Sabotaging the noble notion of Blue Economy. Manipulation and extortion becomes the order of the day; greatly affecting the small-scale fisheries physical, mental and moral-wellbeing. Repercussions of which are manifested into multiple mal-practices affecting the parameters of Blue justice. But despite such situations, the small-scale fisheries journey highlights the making of some aware-choices representing, Justice to Nature, through continuous adaptation to the array of situated and contingent adjustment practices (SCAP) using the existing ecological-attributes, by improvising and experimenting upon the same. The contemporary discourse on environmental-viability rests on Nature-based Solutions, with leading organizations like WWF and IUCN promoting investments. Identifying some limits, most importantly its lack of place-based anchorage and non-engagement with gender, we empirically document bottom-up, needs-based, gendered-ecosystem-practices, and showcase why and how Nature-based Viability (NbV) perspective and paradigm, accommodating power-choreographies, gender and situated socio-ecological-practices could be more effective within the volatile geographies of Sundarbans; with communities keen to evolve as coping-actors and adaptive-transformative-managers beyond passive-spectators of climate-vulnerability and precariousness; in search of their long denied Justice as a part of the neglected reality.

Keywords: SCAP, NbS, NbV

**Practices, relations, and risks:
On a 'social economy' of dried fish in the submerging
Sundarbans**

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A part of the Dried Fish Matters global partnership project (<https://driedfishmatters.org/>), this study employs ethnographic and visualization methods to see how the fish processing activities are organized into shabar and khoti, two forms of makeshift dried fish units in Sagar and Namkhana blocks of the Indian Sundarbans. It shows that the social economy in dried fish encompasses an 'alternative' representation of economy in which social practices, non-economic values and pluralities in interactions, exchanges and relationships become central to the pursuit of livelihoods. Furthermore, the study identifies context-specific political and environmental factors that have been making pounding impacts on the economy over past few decades. With the empirical insights and under the guiding idea of social economy, it underlines the importance of a distinctive social economy in dried fish, where highly localized economic transactions are integrated in the social dynamics and local ecologies of the risk-prone Indian Sundarbans. Findings of this study might be useful in informing researchers and practitioners about the important directions for future fisheries research and arenas for policy and practice-oriented interventions.

Keywords: Social economy, dried fish, Sundarbans

**Occupational Health and Safety Concerns for Small-Scale
Fishers:
FishSAFE2025 Safety Intervention Program in Bangladesh**

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In Bangladesh, small-scale artisanal fishing has become one of the most dangerous occupations in the country, where safety standards and facilities are poor, and safety training is virtually non-existent. Small-scale fishing provides employment, income and livelihood to almost half million full-time fishers, who are regularly exposed to hazardous conditions at sea. Thus, ‘fishSAFE2025: Bangladesh Fishing Safety Intervention Programme’ implemented by FISH Safety Foundation in collaboration with Patuakhali Science and Technology University (PSTU), Bangladesh that was funded by Lloyd’s Register Foundation, UK. The study purposely determined the small-scale fishing socio-demography, occupational safety and health hazards faced, and probable safety interventions for the small-scale fishers in the Bangladesh’s coastal districts. The results revealed the socio-economical, natural, health, and anthropogenic safety hazards facing artisanal fishers encountered at sea. The study identified cyclonic storms in high seas as the major natural hazards due to which large numbers of fishermen perish at sea every year. Safety intervention includes fishers and skippers training of trainers (ToT) on ‘safety at sea’. The significant output is developed five graphics-based safety training

modules on: Emergency First Aid, Emergency Preparation, Safety Risk Management, Vessel Engine Maintenance, and Fire Safety. Safety items (life jackets, buoy, sun-glasses, first-aid kit box) were donated under the re-FISH initiative. The COVID-19 impact, knowledge, attitude and practices of the small-scale fisheries is also identified. The fishSAFE2025 recommended effective safety policy, training, input supplies, and social awareness could certainly contribute to improve the fishing safety culture, thus to save lives of the small-scale fishers in Bangladesh.

Keywords: Occupational, Health and Safety, Safety Intervention Training, improve

**Bright spots small-scale fisheries in Myanmar:
Shining Light on Coastal Fisheries Co-Management practice**

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Myanmar is currently facing challenging times amid political unrest and impacts of the COVID-19 global pandemic. This represents exciting opportunities for shining light fisheries management in Myanmar, with management over inshore fisheries for coastal co-management being developed. In support of previous fisheries reform efforts in Myanmar, the Wildlife Conservation Society and local partners have been developing a co-management approach to fisheries management, involving 29 coastal communities in southern Rakhine, and 15 coastal communities in northern Tanintharyi. WCS is working with partners to understand the communities' socioeconomic situation and analyze their current and historic fishing practices. We have mapped fishing

grounds and compiled information on preferred gear types, targeted fish species, and seasonal fishing activities. We also installed vessel monitoring systems to track fishing boats, which confirmed the data gathered from participatory mapping and helped further define the community's fishing grounds. These activities aided us in identifying the boundaries and zoning for a co-management area in Kyeintali, and establishing a new fisheries association comprised of 20 representatives from each of the participating villages (one man and one woman) to collaboratively oversee the area. Within the 280-square mile co-management area, specific zones – such as no take zones, seasonally-closed areas, and gear-restricted areas – have been delineated by the communities themselves and a co-management plan drafted to guide implementation. On August 2018 Myanmar's Department of Fisheries formally designated the Kyeintali co-management area, one of the first such arrangements in the country. This presentation will provide an overview of co-management demonstration in Kyeintali, lessons learned to date, and implications for further replication in the Myanmar context.

Keywords: Fisheries co-management, Coastal communities, Myanmar

Social innovation for small-scale fisheries governance in Bangladesh

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Social innovation reflects the capacity and potential of communities in any emerging and challenging situation, including the blue growth context. This paper explores how social innovation can support government policies and private sector initiatives in delivering successful and innovative livelihood interventions. In Bangladesh, small-scale fisheries have been shrinking in inland waters, while coastal small-scale fisheries are increasingly becoming non-remunerative and unregulated. In response to ecological degradation and economic hardship, the immediate strategy was to expand their fisheries catch and better market access without much influence from middlemen. Based on the outcome of these responses, we identify social innovation as a way of supporting fishing community's entrepreneurship and better governance practices. Finally, these social innovation practices would be sustained when managed effectively based on rules they could accept and predict. Additionally, the social innovation practices need to be scaled up as 'vigorous local institutions' capable of performing resource management.

Keywords: Social Innovation, small-scale fisheries, Bangladesh

Community Perspectives of Distributional Equity for Livelihoods of Small-Scale Fishers in Perhentian Marine Protected Areas in Malaysia

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The small-scale fishers in marine protected areas rely on marine resources for their livelihoods. Several studies demonstrate that small-scale fishers perceived inequitable access to resources and often receive an unfair distribution of benefits in the MPA areas. Drawing from the distributional justice lens, this study seeks to understand to what extent the MPA contributes equitable access to resources for livelihood benefits of local fisher households in the MPAs in Malaysia. A set of social ecological and governance factors were used in the study to understand how these factors affect distributional inequity among the fisher households in the MPA areas. The data for this study was obtained from face-to-face in-depth interviews and Focus Group Discussions with local people using structured questionnaire. The results of the study show that local fisher households have diversified their income source, increased women access to employment and improved household income from tourism-based activities. The findings of the study indicate that a major share of income generated from tourism business goes to the rich people who invested in the tourism business. The results of the study suggest that there is an inequitable and unfair access to fishing and tourism activities for the local people. Successful implementation of MPA should consider equitable access to the resources and fair distribution of benefits among the local fishers. Involvement of local fisher community in resource conservation is important for successful marine conservation program in vast MPA areas in Malaysia.

Keywords: Small-scale fisheries, marine protected areas, distributional inequity

Bright spots in the social economy of dried fish in Asia

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This presentation is an important way marker in the second phase of an eight year long international partnership project called Dried Fish Matters: Mapping the Social Economy of Dried Fish in South and Southeast Asia for Enhanced Wellbeing and Nutrition. Project participants are in the process of assessing what we have achieved to anchor strategies for moving forward within and beyond the project. Key to that exercise is to identify bright spots in our research to date that can serve as hopeful points of reference for the future of small-scale fisheries in the region. As with fisheries in general, the production and consumption of dried fish faces numerous environmental and social challenges. Yet, the small-scale producers who underpin dried fish social economies demonstrate a remarkable degree of persistence, innovation, and adaptation. Building on a collaborative approach to synthesizing project findings, in this presentation we explain the centrality of small-scale actors to dried fish food systems. We argue that small-scale actors are at the heart of the social economic and nutritional contributions that dried fish makes. As such, they need to be central in interventions designed to address the shortcomings of dried fish production. We point to promising examples of such interventions, led by small-scale actors, to help strengthen the place of dried fish as a vital part of Asian foodways.

Keywords: Dried fish, social economy, nutrition

Fisheries mutual aid system in Japan: Role in mitigating climate change impact on small-scale fisheries

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The primary cause of instability of small-scale fishers' livelihood is the fluctuation of fisheries resources. As an additional risk, climate change induces further resource fluctuations. In Japan, the fisheries mutual aid (FMA) system is well developed and contributes to stabilizing fishers' income but is relatively unknown internationally. This study describes the Japanese FMA and examines its role in stabilizing fishers' income in the case of small-scale squid angling fisheries, whose landings are decreasing owing to stock decline caused by climate change. Although other types of schemes exist, in this study, FMA refers to the "capture mutual aid" that guarantees landing values of capture fisheries. FMA is basically non-refundable, and fishers can additionally utilize other savings-type mutual aid schemes on the condition that they work on resource management. When landing value declines, the fisher receives pay-out money from the FMA, which is calculated based on their average landing values of three years excluding the two years with the largest and smallest landing values over the past five years. The government provides financial support to fishers for the payment to the FMA. Statistics indicate that 10-20 GRT class small-scale squid angling vessels did not experience negative profits despite fluctuations in landings. However, smaller vessels (3-5 and 5-10 GRT classes) experienced severe decrease in landings owing to poor catches, which resulted in negative profits. The payouts from FMA compensated for the negative profits. Thus, FMA contributes to securing the income of small-scale squid angling fishers.

Keywords: Economic risk, fisheries resource fluctuation, insurance

Securing Justice in the Era of Big Change: Eight Principles for Implementing Umigyo

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Umigyo is a series of economic activities carried out by community people centred on fishers and fishers' organizations utilizing fishery resources and all kinds of community resources, including landscapes, sceneries, cultures, heritage, etc. Despite their roles and importance in securing fisheries sustainability, Japanese small-scale fisheries face various challenges today, including unstable fishing household income, aging populations, lack of successors, losing community vitalities, etc. In addition to those challenges, a recent policy change that enables private capitals to enter into coastal fisheries has caused great concerns to the situation. We argue the Umigyo strategy is an effective and essential way to cope with old and new challenges faced by the small-scale fishing communities and to secure justice in an era of big change in Japan. Based on the literature reviews and case studies, this study proposes eight principles for implementing Umigyo for building viable fishing communities.

Keywords: Umigyo, Japan, Life Above Water

Solutions for gender injustices in Japanese fisheries: The story of Ama woman diver in Sugashima Island, Mie

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The world has recently seen a movement to promote gender equity and equality. It includes the SDGs' fifth goal of achieving equality and the calls of FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication for gender equity and equality in small-scale fisheries. In Japan, there is also a movement to promote gender equality, a society with opportunities to participate in activities of all areas of their own volition. Men and women can enjoy political, economic, social, and cultural benefits equally, and both should assume responsibilities in recent years. However, despite being a developed country, Japan is far from being gender equal, with a low gender gap ranking of 125 as of 2023. This is also true in the Japanese fishing industry, where the number of female fishers engaged in fishing operations is about 10%, making it difficult for opinions to be heard. With such background, this case study aims to understand the actual situation of gender injustices and the various efforts of the Ama women divers in the Sugashima Island, Mie, and to explore its solutions for improving gender issues.

Keywords: Gender injustices, small-scale fisheries, Ama

Towards a sustainable tawilis fishery in Lake Taal, Philippines

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Tawilis or *Sardinella tawilis* is a freshwater sardine endemic to Lake Taal, Philippines. Tawilis fishery is a prominent industry dominated by small-scale gillnetters, scattered across the 11 coastal municipalities of the lake. About 500 fishers are solely dependent on this fishery. As a local delicacy and a popular food fish in the region, fishing pressure on tawilis increased over the last two decades, prompting the lake's management board to execute intense conservation measures. Among the conservation measures implemented were the seasonal fishing closure and establishment of a Tawilis Reserve Area, the basis of which was the research of the National Fisheries Research and Development Institute - the fisheries research agency of the Philippines. Through NFRDI's research, the spawning season and grounds of tawilis were confirmed, which provided scientific data for the formulation of conservation policies for tawilis. The seasonal fishing closure, which is currently in its fifth year of implementation, now has a high compliance rate and strong support from the local government units. A harmonious relationship among government agencies, NGOs and fisherfolk organizations is imperative in securing the livelihood of small-scale fishers, at the same time conservation of the lake's fishery resources.

Keywords: Sardine, Lake Taal, gillnetter

**Trapped in a Gulf of Hope and Despair:
The Wagher Small Scale Fisheries on the Kutch Coast of Gujarat,
India**

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This paper focuses on the institutional economic constraints faced by Muslim Wagher migrant fishers who live and work on the northern coast of the Gulf of Kutch in Gujarat, India. Wagher fishing livelihoods continue to be based on small-scale traditional practices. Fish drying forms the chief source of their livelihood. In the absence of a substantial local market for the limited variety of dried fish they produce, the Wagher fishers depend on local trader-aggregators for market linkage. These products enter into multiple value chains extending from the local trader-aggregators through wholesalers and retailers in distant markets, including export markets. However, participation in these value chains has not improved the lives or livelihoods of the Wagher fishers, mainly because they are perpetually trapped in debt bondage with traders. By anchoring fishers to market through the mechanism of debt (or advances), the traders are able to appropriate a substantial share of the value added through drying. The other source of the vulnerability of the fishers is their over-dependence on low-quality and low-value intermediary products used for fish meal/animal feed production. The paper argues that the livelihood insecurity of the Wagher fishers can be reduced only by unshackling the unfreedoms that bind their lives, which would involve the expansion of entitlements and capabilities spanning education, healthcare, communication, power, transportation, finance, and access tenurial rights, along with access to employment opportunities outside the fisheries sector.

Keywords: Wagher small fisheries, dried fish, Kutch

**Bivalve aquaculture in the Philippines:
The case of small-scale mussel farmers' organizations in
promoting sustainable and responsible fisheries**

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Mussel culture is considered an important food-producing sector in many coastal communities in the Philippines. It is associated with small-scale fish farmers and is mostly considered a backyard activity. At present, the utilization and economic role of mussels in the country are not given much attention by the government. Hence, this case study was conducted to document the mussel organizations in the province of Capiz, one of the top bivalve producers in the Western Visayas region. Key informant interviews were conducted and participated by organization leaders, local government unit officials, and non-government organizations. The results of the study revealed that active and registered organizations play a vital role in promoting sustainable and responsible fisheries. They serve as a conduit for capacity-building programs for the local stakeholders, e.g., conservation awareness, livelihood trainings, marketing opportunities, and proactive participation in local governance. Furthermore, the roles of the organizations and women of the community in addressing industry problems were highlighted in this study.

Keywords: Mussel farmers' organizations, small-scale fisheries, women

**Impact of reciprocal relationship between fisheries and the
Ocean on Climate Resilience:
A Case Study of Fishermen's Environmental Education
Initiatives in Higashimatsushima City, Miyagi Prefecture**

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A small coastal community, Higashimatsushima city in Miyagi prefecture, is where small-scale fisheries play an essential role in adapting to climate resilience, regional economy, and community-building. This research illustrates the reciprocal relationship between small-scale fisheries and the Ocean. By following the fundamental question in this research, "What do fisheries perceive from the Ocean? And What do fisheries give back to the Ocean?" this approach also reflects the adaptation of the aftermath of the triple disaster to climate resilience. One methodology is to elucidate the contribution of local fishermen to environmental education with specific examples of Odyssey Nature Japan. Odyssey Nature Japan is a new nature educational program that aims to foster the development of new generations who will grow up with a "zest for life" through the guidance of nature. Local fishermen interact with community members, students, and companies to share their ecological knowledge through critical thinking activities as navigators. The result provides a unique perspective by illustrating the interconnection from the mountain to the ocean, called sato-umi, which is grounded in the fishing community and its research environment. This research will supplement previous scholarships on small-scale fishery and disaster management and other research on the nature-human relationship. Still, this research will also analyze different phases to elucidate the process of cultivating resilience. The study also plays a role in academically examining the local fisheries' voices left out in society, which should also be prioritized in this research.

Keywords: Environmental education, local ecological knowledge, climate resilience

Debunking the myths of 'Dadon' in small-scale fisheries of Bangladesh

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The Hilsa Small-Scale Fishery is the largest capture fishery of Bangladesh which requires substantial and consistent capital flow to support 0.5 million fishers and 3 million value chain actors. However, maximum fishers are indigent who cannot afford this capital-intensive fishing operational cost by themselves. Moreover, Hilsa fishers doesn't have access to formal banking system in Bangladesh. Therefore, a unique informal credit system known as 'dadon', a verbal money lending agreement, has become integrated into this small-scale fishery and empowered the creditors to control the entire fishing and marketing process. Unlike other credit systems, dadon money is not expected to be repaid which creates complex and obligated relationship between the fishers and the creditors. Dominant discourses blame 'dadon' for exploiting fishers by highlighting only on economic aspects. In reality, fishers and creditors exist in a patron client relationship where they act to complement each other's subjective social well-being. 'Dadon' as a credit system, plays a pivotal role in running the Hilsa small-scale fisheries which contributes to country's 1% GDP. As management and sustainability of Hilsa small-scale fishery is a growing concern for Bangladesh government, it is crucial to study this core financing system to overcome the vulnerabilities of Hilsa fishers. Given this backdrop, the aim of this paper is to explore responsible and fair financing options to secure equitable distribution of profits, which in return may support better governance and sustainability of Hilsa small-scale fishery. Both primary and secondary data will be explored and analyzed as evidence to develop key arguments of this paper.

Keywords: Informal credit system, fair financing, Bangladesh

Myanmar's Fishery Governance in Political Turmoil: Impact, Adaptation, and Sustainability

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Following the February 2021 coup d'état in Myanmar, there was a marked reversal in the trajectory of fishery governance reform. In the decade prior (2010-2020), Myanmar had made strides in enhancing fishery governance through policy, legal frameworks, and institutional structures that acknowledged the significance of small-scale fisheries in the country's development and poverty alleviation efforts. Key advancements included the acknowledgment of fishery co-management, the establishment of small-scale fisheries associations and networks, and their active engagement in fishery policy reforms, particularly in freshwater fishery governance. However, this positive momentum shifted after the coup, and the State Administration Council (SAC) reverted to the previous system of fishing tenure rights, employing an auction process and allocating fishing grounds to influential figures, thereby potentially exploiting small-scale fisheries as cheap labor. Drawing together these threads, this study examines three core inquiries through qualitative analysis in Myanmar's coastal areas: (1) The shifts in fishery governance amidst the ongoing political crisis; (2) The impact of the crisis and regime changes on the small-scale fishery sector, including working conditions of fish-workers in marine raft fisheries; and (3) The response of small-scale fisheries associations to prevailing social and political transformations while striving for organizational sustainability. This study contributes significantly by first highlighting the substantial alterations in fishery governance and the socio-political dynamics at the community level. Secondly, it assesses the repercussions on small-scale fisheries livelihoods, encompassing potential challenges such as unemployment and food security. Lastly, it underscores the importance of sustaining small-scale fisheries organizations to support these communities amidst the current environment and reshape future fishery governance.

Keywords: Small-scale fisheries organization, fishery Governance, Myanmar

How can cooperative systems be classified in small-scale fisheries?

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Cooperative systems in evolutionary ecological sense have been theoretically classified into four types (i.e., ONE-for-ONE, ALL-for-ALL, ONE-for-ALL, and ALL-for-ONE), based on combinations of those who bear cost and who receive benefit within a community (Shimura and Nakamaru, 2018). The first and second correspond to decision-making systems that have been defined by names of The Prisoner's Dilemma Game and The Public Goods Game (PGG), respectively. A commonly observed cooperative system as a collective action in small-scale fisheries is the temporary suspension of fishing for a conservation of the commons, that corresponds to the PGG. The inequality among individual interests due to the emergence of free-riders, for example, can be seen as a structural defect with cooperative system of the PGG. Similarly for other remaining types, problems in each system that affect the sustainability of cooperation in small-scale fisheries can be recognized. Combining and complementing basic cooperation practices, that is, will be empirically considered to be an effective means to develop an existing cooperative system into an innovative one. A common measure associated with cooperation levels would be helpful to illustrate interrelationships among four systems. In addition to redefining the practical cooperation known for small-scale fisheries by four-categorized systems, they will be placed on a 2-dimensional coordinate plane consisting of two scales; the size of group by number of members, and the social cohesion level within the group. Based on an overview of result, we would like to discuss what internal or external conditions are useful to build more robust cooperative systems.

Keywords: Overfishing, cooperation, community

Utilizing Your Community's Fishing Heritage to Empower Young People and Create Transformative Tourism Experiences

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This discussion draws upon a multi-pronged research study of Fishing For Success (F4S), a nonprofit social enterprise in Petty Harbour, Newfoundland and Labrador, Canada. Fishing For Success is a volunteer-based nonprofit social enterprise museum that works to transmit the intangible cultural heritage of Newfoundland & Labrador's family fishery while advocating for an inclusive, gender-equitable & sustainable small-scale fishery. This can help combat climate change and contribute to food sovereignty through better local seafood access and greater stakeholder participation. Free or reduced-cost programming for women, children, youth, newcomers, and Indigenous community members are provided by partnering with other like-minded nonprofits. Costs to partner nonprofits are reduced through revenue generated by offering unique and exciting tourism and conference experiences. Fishing For Success partners with research groups such as the Ocean Frontier Institute, Too Big To Ignore, and Memorial University of Newfoundland's Centre for Social Enterprise to create dynamic interaction between academics, practitioners, and those living at the ever-changing ocean's edge. Through our partnerships with EcoSchools Canada, Project WET Canada, and Fisheries and Oceans Canada, resources and experiential education is provided that connects youth in coastal communities to fishing as a cornerstone of ocean literacy and food equity through the development of F4S' Sea2School program. The Girls Who Fish program members volunteer to create space in the boat for those who are marginalized by the current commercial and recreational fisheries in the hopes of

creating a more sustainable future for all of us. This research was funded by the Future Ocean and Coastal Infrastructures (FOCI), an Ocean Frontier Institute project supported by the Canada First Research Excellence; and a Partnership Development Grant (#890-2018-0008) from the Social Sciences and Humanities Research Council (SSHRC) of Canada. Funding was provided by SSHRC to attend the SSF Symposium for Asia Pacific and disseminate lessons learned about youth and identity, tourists and connection to place, and art shared.

Keywords: Fishing, Heritage, Youth, Identity, Community, Resiliency, Tourism

Empowering small-scale fisheries to be part of global tuna supply chains

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Small-scale fishing communities need to be empowered to protect and restore ocean ecosystems across the globe through improvements on the water and by securing preferential market access. The industrial tuna fishing sector, driven by profit motives, engage in overfishing, depleting fish populations to unsustainable levels, disrupting marine ecosystems and jeopardising livelihoods. Harmful subsidies supporting industrial fleets lead to further overcapacity and overfishing, perpetuating an unsustainable cycle of resource exploitation. Virtually unrestricted access to the high seas allows industrial fleets to exploit fishing grounds without oversight, leading to environmental degradation and further depletion of fish stocks. In the marketplace, a flood of cheap, unsustainable seafood distorts market dynamics, making it challenging for responsibly sourced and sustainable products to compete. This creates a skewed incentive structure prioritising cost-cutting measures over environmental and social responsibility. Small-scale tuna fisheries using low impact fishing gears have the ability to compete in the market place if the playing field is level. Access to preferential markets could play an important role in the livelihoods of coastal communities. Improvements linked to seafood quality, renewable energy and new technologies have the ability to empower small-scale tuna fisheries. Future technological developments will also make the protection of the high seas more viable. Together with a push for more responsible seafood sourcing practices aligned with the SDGs, the future of global tuna supply chains could better contribute to a world where no one is left behind.

Keywords: Tuna, small-scale, markets

Japanese experiences on coastal fishing ground management for small-scale fisheries

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Recent deterioration of fishing grounds such as reduction of seaweed beds and decrease of productivity of tidal flat in Japan, is considered one of causes of the recent decrease of fishery resources in the coastal waters of Japan. In order to address such concerns, fishers have undertaken various activities aimed at managing their fishing grounds. This report introduces some brief examples of the fishers' efforts to conserve fishing grounds and the supporting activities by governments in Japan, as well as importance of management of seaweed beds and tidal flat for small-scale fisheries, which will be useful information for the countries where small-scale fisheries are an important role on fisheries.

Keywords: Fishing grounds, tidal beds, seaweed

Regulatory Injustice and Small-Scale Fisheries: An Examination of Challenges and Solutions

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This abstract provides an overview of the complex issues related to regulatory injustice in small-scale fisheries, along with potential solutions to address them. Regulatory injustice in small-scale fisheries encompasses a range of problems, including limited access to fishing resources, inequitable distribution of benefits, lack of participation and representation in decision-making processes, compliance challenges, and vulnerability to climate change. These injustices hinder the economic, social, and environmental sustainability of small-scale fishing communities. We suggest key strategies to combat regulatory injustice, for instance, the promotion of inclusive and equitable fisheries management, community-based and co-management approaches, capacity building, transparent governance, and support for responsible and sustainable fishing practices. Efforts should prioritize the well-being of small-scale fishers while ensuring the long-term sustainability of the resources on which they depend.

Keywords: IUU, Interactive governance, Thailand

**Small-scale Sardine Fisheries:
The Case of Small Island Fishing Community in Northern Iloilo,
Philippines**

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Sardines is an important fisheries commodity in the Philippines which provides major economic activities to the coastal communities that rely on fishing as a main source of income. This paper looks into the fishing practices, marketing and post-harvest distribution of sardines as well as the problems encountered by the fishing community in Nasidman, a small island barangay in Ajuy, Iloilo. Results of the face-to-face interviews with 30 respondents revealed some of the problems encountered by the community in the production and post-production nodes of the supply chain. The needs of the community were also identified to improve the local sardine industry. These information were further validated through a focus group discussion involving fisherfolk leaders, barangay officials, and municipal fisheries workers. Results of this study will serve as basis for the management of sardine fisheries through capacitating small island communities in attaining food security and sustainability.

Keywords: Small-scale sardine fisheries, food security, sustainability

**Achieving sustainable fishing practices:
The importance of small-scale fishers in the implementation of
fisheries laws and policies in southern Iloilo, Philippines**

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This paper will discuss the preliminary results of the study on the status of the adoption and implementation of fisheries laws and policies in Southern Iloilo, Philippines, from the perspectives of small-scale fishers. Secondary data gathering was done by identifying and compiling the relevant national laws and conducting content analysis of municipal fisheries ordinances. Primary data gathering was employed through key informant interviews (KII) with various stakeholders on their knowledge of the relevant laws, gaps they have identified, and their training needs. Forty-three (43) respondents from five municipal local government units (LGUs) (Oton, Tigbauan, Guimbal, Miagao, and San Joaquin) participated in the KII. Most (62%) are fisherfolk leaders and LGU personnel (26%). Preliminary results of the study revealed that most of the municipal ordinances in the study area have been in use for 20 to 25 years and are yet to be updated. Only 16% of the key stakeholders are aware of and fully understand the different fisheries laws and policies, while 79% are aware of but do not fully understand. In addition, most of the recent national fisheries laws and policies are not incorporated yet in the LGUs' ordinances. Among others, the problems identified in the implementation of laws and regulations are insufficient extensive information dissemination, limited budget, inadequate logistic support for the law enforcement team's operation, and lax implementations of the regulations. The paper highlights the important

role of our small-scale fisherfolk leaders in the adoption and implementation of fisheries laws and policies at the LGU level.

Keywords: Small-scale fishers, fisheries, policies

Lessons Learnt from Japan to Improve Pescatourism focusing on Justice

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Small-scale Fisheries are often undervalued and receive insufficient attention from governments and the public worldwide, including coastal areas in Japan. The common problems small-scale fisheries are encountering are the aging population, low income, and environmental degradation. However, Pescatourism, a popular type of fishing tourism in Europe, has the potential to alleviate the vulnerabilities and follow the current sustainable regulations in Japan. Meanwhile, Japan is expanding its Umigyo industry, letting fishers carry out economic activities utilizing all regional marine-related resources. It advocates that small-scale fisheries communities grow their tourism industry as an element of Umigyo, which is a similar tourism style to Pescatourism to make tourists experience the fishers' lives in small-scale fisheries communities. My study aims to examine the degree of justice is in place in governing small-scale fisheries communities in Japan along the Pescatourism operation. In doing so, my case studies, with observation, interviews and focus groups, first describe the existing Umigyo initiatives in five ports in Shizuoka and Miyagi in Japan. Then, the extent of justice is reflected by the vulnerabilities of small-scale fisheries communities and the efforts of the current Pescatourism market in these ports in addressing these vulnerabilities. My study then analyzes the current governance arrangements, including the existing values and institutions, the power dynamics for benefit allocation among stakeholder groups, and small-scale fisheries fishers' degree of satisfaction with the Pescatourism governance in Japan. This study can help reflect Japan's justice in small-scale fisheries tourism governance for its adaptation to Pescatourism.

Keywords: Pescatourism, Umigyo, Viability

Blue (In)Justices in Small-Scale Fisheries: Resilience and Hope in the Transformation

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Small-scale fisheries are vital for global sustenance, particularly in coastal communities, characterized by imbalances in access, benefits, and decision-making known as "blue (in)justices." These injustices are exacerbated by environmental changes, affecting the resilience of local fishing communities. The study aims to identify the multifaceted drivers of blue injustices, specifically focusing on the interconnection between blue carbon ecosystems (BCEs) (such as mangroves and seagrasses) and small-scale fisheries in the coastal social-ecological system (SES). Natural processes and human activities, such as climate change, overfishing, aquaculture, and pollution, collectively drive the transformation of these systems. As these changes unfold, the traditional knowledge and adaptive strategies of small-scale fisheries are put to the test. Unfortunately, the marginalized position of small-scale fisheries often leaves them disproportionately affected by environmental shifts, further exacerbating existing injustices. Through participatory research methods, including interviews, community engagement, ecological assessments and participant observations, the study seeks to unravel the interconnectedness of environmental changes, blue injustices, and the resilience of coastal communities. By engaging directly with local communities, the study aims to capture nuanced perspectives, providing a holistic understanding of the challenges small-scale fisheries encounter in the evolving SES. Preliminary findings indicate that the marginalized position of small-scale fisheries exacerbates their vulnerability to environmental shifts, contributing to heightened blue injustices. Acknowledging small-scale fisheries' vulnerabilities, the study spotlights coastal communities' inherent resilience and positive transformation opportunities, underlining the necessity for targeted conservation and management. The study contributes to the broader landscape of Blue Justice,

emphasizing the importance of tenure rights in fostering resilience and hope within small-scale fisheries.

Keywords: Blue Carbon Ecosystems, Blue Justice, small-scale fisheries



Children's octopus fishing experience

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A regional revitalization project led by the government and the private sector that connects fishermen and children in Shichigahama Town, Miyagi Prefecture. A business report on food education and marine litter issues.

Keywords: Food education, marine debris, octopus fishing

Better solutions for coping with injustices regarding the Ipponzuri tuna fisheries on Iki island

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The fishing industry on Iki Island in Nagasaki Prefecture is a coastal fishery and is primarily a small-scale fishery, which is mainly run by families. In the northern part of Iki Island, a group of fishers makes a living from fishing for Pacific bluefin tuna. The region has five Fisheries Cooperative Associations (FCA), with the largest FCA in the Katsumoto area. Most bluefin tuna Ipponzuri (pole and line) fishers are affiliated with the Katsumoto FCA. At one point in the past few decades, Pacific bluefin tuna was the fishery on which the local Ipponzuri fishers depended for their livelihood. However, in recent years, they have been hit hard due to environmental changes and overfishing in other areas. As per the data released by the Katsumoto FCA, the Pacific bluefin tuna catch has been decreasing since 2012. In response to this situation, Iki's Ipponzuri fishers have made many efforts, including the formation of tuna resource protection groups and spontaneous fishing bans, but with little success. This paper analyzes the challenges of bluefin tuna Ipponzuri fishery from the Blue Justice perspective and proposes better solutions for tuna Ipponzuri sustainability.

Keywords: Blue Justice, small-scale fisheries, Ipponzuri

The bright spot for Ainan community: A quick scan on Umigyo initiative

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Small-scale fisheries in Japan have functions and importance for ensuring the sustainability of the fishing industry, such as resource management, ecosystem conservation, and maintenance of local history, culture, and communities, but they face various issues, such as the aging of fishers, lack of successors, instability of fishers' income, and a decline in regional vitality. Under such circumstances, "Umigyo" is attracting attention as a concept for the revitalization of fishing village areas. Umigyo refers to a series of economic activities carried out by local residents, mainly fishers and fishery organizations, utilizing all kinds of local resources, such as fishery resources, landscapes, culture, and heritage. In March 2023, the Ainan community, Ehime Prefecture, was selected as an Umigyo model area by the Fisheries Agency, aiming to revitalize the region by utilizing marine resources. This study aims to understand the actual situation and the challenges of Umigyo initiatives in the Ainan community.

Keywords: Umigyo, small-scale fisheries, Ainan

**How Power Dynamics Shape Rural Coastal Development
Strategies:
The Case of Land Reclamation at Isahaya Bay, Nagasaki
Prefecture**

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The Isahaya Bay Land Reclamation Project was developed by the Ministry of Agriculture, Forestry, and Fisheries to increase land availability for rice farming and argued later, to protect the coastal areas from potential flooding in case of a natural disaster. Since the beginning however, fishers and fishery groups have vehemently opposed the project, not wanting to be cut off from coastal resources, and worried about the long-term environmental impacts to the resource-rich wetland. My research provides a structural analysis of the decision-making behind the Isahaya Bay Land Reclamation Project, specifically by critically examining the power dynamics of governance actors in Nagasaki's fishing communities amidst rural coastal development. Particularly, how power in decision-making in "sustainable" fisheries governance processes has shifted away from participatory governance actors, namely, fishers, fisheries cooperatives and fisheries unions. I aim at presenting the case of Isahaya Bay as an example of a "hope" spot for Japanese fisheries, by concluding with an exploration of potential avenues of Blue Justice of fisheries governance in the Japanese context.

Keywords: Sustainable rural development, power dynamics, land reclamation

The diversification of income resources by utilising ‘Umigyo’

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Shizuoka Prefecture is well known for its abundant marine resources in Japan. Particularly, a variety of seafood such as whitebait and Sakura shrimps from Suruga Bay are the main attractions for tourists and have become deeply rooted in the local culture. Additionally, it serves as a base for the deep-sea fishing industry and contributes significantly to employment, not only in fishing but also in fisheries processing and distribution industries. Therefore, the fishing culture plays a key role in Shizuoka Prefecture. While deep-sea fishing and small-scale fishing occur in the prefecture, small-scale fishing has an essential impact on local society. In fact, over 90 percent of fishermen belong to small-scale fisheries. Since fishing villages tend to be located in inconvenient areas lacking buses or trains, residents largely depend on income from fisheries. However, due to the increase in sea water temperature and changes in the Black Current caused by climate change, the fish catch has significantly worsened. Hence, small-scale fishermen need to create a new revenue stream to supplement the loss of fishery income. From this perspective, fishermen have been seeking new methods suitable for the present time, known as Umigyo. Umigyo aims to revitalize the local fishery economy by utilizing local resources derived from nature, fishing facilities, fishing villages, and cultures. Although these resources are not competitive on their own due to limitations in scale, it is believed that combining these resources may be a potent means of revenue generation, offering a path to continuity for small-scale fishing.

Keywords: Small scale fishing, a new revenue stream, Umigyo

