THE CONTRIBUTION OF FISHERIES IN ACHIEVING SDGS: PERSPECTIVES OF WOMEN RESEARCHERS

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Yumiko Kura is the Director of WorldFish in Cambodia. She is an environment and natural resource management specialist with over 20 years of research and program management experience in fisheries policy, aquatic resource management, and biodiversity conservation, and has worked in various countries throughout Southeast Asia and Africa. In this capacity, she has exerted a leadership role in multi-disciplinary research for development projects of various sizes, with funding from donors including the Asian Development Bank (ADB), the Australian Centre for International Agricultural Research (ACIAR), and the US Agency for International Development (USAID). Much of her recent work focuses on ecosystem-based fisheries co-management in wetlands and floodplains in the Mekong River Basin and Myanmar. She holds a Master's degree from Clark University (Massachusetts, USA). She is originally from Kanazawa, Japan, and has been based in Phnom Penh, Cambodia since 2005.

ABSTRACT

WorldFish is an international research organization with a mission to reduce poverty and hunger by improving fisheries and aquaculture. Our work focuses on sustainable small-scale fisheries and aquaculture in developing countries where impoversished persons rely on fish for purposes of livelihood and food security. When the Sustainable Development Goals (SDGs) came into effect in 2016, it was clear that WorldFish's work contributed most directly to Goal 14 - *Conserve and sustainably use the oceans, seas and marine resources*. However, a review of the specific targets of each SDG revealed a more complete picture. WorldFish puts people in the center of sustainble resource use and planning. That means that fish has an important role to play in nearly all of the SDGs, especially in terms of ending poverty (1), as well as achieving zero hunger (2), good health and well-being (3) and gender equality (4). Approaches to fisheries have been shifting from a focus on production technologies and yields, to scaling up and out to include questions around what is the role of fish in the context of household income portfolio, subsistence, nutrient supply, and governance (Curtin and Prellezo, 2010). When we put humans at the center, we also start to include questions of fair valuation of labor and benefit-sharing so that both women and men in different segments of society can enjoy equitable share of the benefits of this common pool resource, and a seat at the decision making table (FAO 2015). At WorldFish, we pursue gender as a cross-cutting theme, meaning we think it is important to apply a gender lense in all aspects of our work. WorldFish's researchers, both women and men, assess power dynamics and social norms that exist at community and household levels and create barriers for women to apply their knowledge and skills to solving the issues at hand. Then, by removing those barriers, we can begin to link our fisheries and aquaculture interventions with positive livelihood and nutritional outcomes at household and community levels (Cole, 2014). For the field of fisheries science to go the extra mile and become relevant to SDGs, researchers need to think out of the box and out of the comfort zones of their own individual expertise and space where they operate. Both male and female fisheries researchers need to build the skills and knowledge to apply gender transformative approaches to his or her work to ensure that research outcomes reach beyond fish production increases. Some examples of WorldFish's work illustrate practical applications of this thinking, including nutrition-sensitive fisheries and aquaculture, post-harvest value chains, and the role of fish in dietary diversity.

KEYWORDS

Benefit-sharing, Gender SDGs, Livelihoods, Nutrition

REFERENCES

Cole, S.M., Kantor, P., Sarapura, S., and Rajaratnam, S. (2014). Gender-transformative approaches to address inequalities in food, nutrition and economic outcomes in aquatic agricultural systems. WorldFish, Penang, Malaysia. Working Paper: AAS-2014-42; 1-24.

Curtin, R., and Prellezo, R. (2010). Understanding marine ecosystem based management: A literature review. Marine Policy, 34: 821–830.

FAO. (2015). *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the context of Food Security and Poverty Eradication*. Rome: Food and Agriculture Organization of the United Nations: 1-18 (Available on-line at: http://www.fao.org/3/a-i4356en.pdf)

United Nations. Sustainable Development Goals. (Available on-line at: https://www.un.org/sustainabledevelopment/sustainable-development-goals/)

The contribution of fisheries in achieving SDGs: Perspectives of women researchers

Yumiko Kura, WorldFish
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WorldFish

Outline

- About WorldFish
- Role of fish in SDGs
- Research questions relevant to SDGs
- WorldFish project examples

Mission

To reduce poverty and hunger by improving fisheries and aquaculture.

What We Do and Where

Thematic Programs

Sustainable aquaculture
Enable sustainable increases in livelihoods from aquaculture production without creating adverse socio economic or environmental impacts.

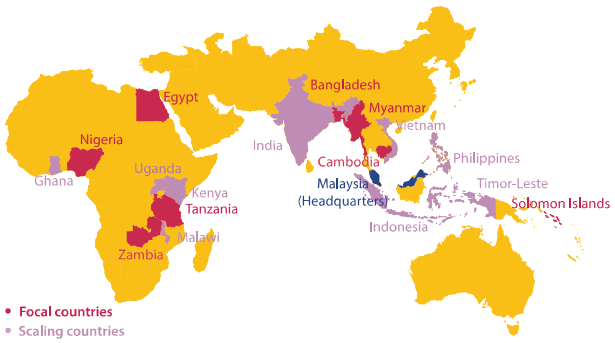
Resilient small-scale fisheries
Secure and enhance the contribution of small-scale fisheries to poverty reduction and food security in priority geographies.

Value chains and nutrition
Increase the availability, access and consumption of nutrient-rich, safe fish, especially for women of reproductive age, infants and young children.

Cross cutting themes

Climate Change | Gender Equity | Entrepreneurship

Geographies



Fish contribution to the SDGs

Fish contribution to the SDGs

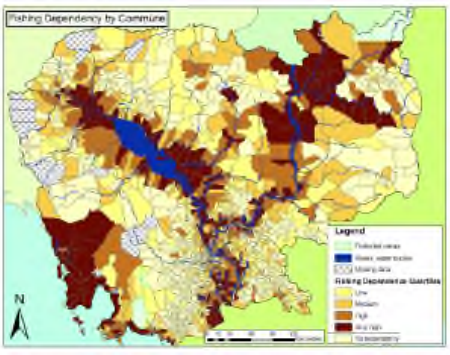
Fish for Income, Livelihoods, Jobs and Gender Equity （SDG 1, 5, 8）

800 million
people depend on fisheries and aquaculture for their livelihoods

漁業が途上国の農村の貧困層の生計安定と女性の経済参加に果たす役割は大きい

- **Very poor often rely on fishing as a primary source of income**
- **Fishing is part of diverse income portfolio of rural households**
- **Fish value chains present opportunities to enhance gender equity and build income and assets of women and youth**

Distribution of Fishing dependent Communities in Cambodia



- 10-12% of GDP
- 50% of rural households involved in fishing at least occasionally
- 3-4 million dependent on fisheries
- 50% of the workforce in fishing sector are women

Sources: Mousset et al. 2016; Nasielski et al. 2013.

Fish for Food and Nutrition Security（SDG 2, 3）

Globally, more than
1 billion
people obtain most of their animal protein from fish

世界中で10億人が動物性たんぱく質の多くを魚から摂取している

- **75%** of the countries where fish contributes more than 1/3 of animal protein are -
- **low-income food-deficit countries**, where fish is often the cheapest and most accessible animal-source food.

Hidden hunger

A Global Problem

途上国における貧血、ビタミン不足など微栄養素不良の原因は魚や肉などを含めた多様な食生活を送れていないから

2 BILLION people worldwide suffer from hidden hunger, or micronutrient deficiencies

1 MILLION children under five die every year from vitamin A and zinc deficiencies

微栄養素不良は子供の脳や体の発育不良や免疫低下などの健康問題を引き起こす

Micronutrient deficiencies are often caused by not eating a diverse diet including animal source foods like fish and meat and can lead to:

Impaired brain development in children
Adults who suffered from undernutrition as children earn 20% less than those healthy children who didn't

Stunting in children
450 million
children will be affected by stunting in the next 15 years if current trends continue

Increased risk of diseases
Malnourished children are 10 x more likely to die from preventable diseases than healthy children

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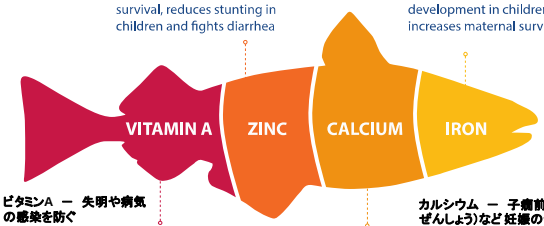
亜鉛 ー 発育不全や下痢を防ぐ
Zinc
is crucial for childhood survival, reduces stunting in children and fights diarrhea

鉄分 ー 脳の発達や妊婦の生存率を高める
Iron
is essential for brain development in children and increases maternal survival rates



ビタミンA ー 失明や病気の感染を防ぐ
Vitamin A
is essential for childhood survival, prevents blindness, helps fight infections and promotes healthy growth

カルシウム ー 子癇前症(しかんぜんしょう)など妊娠の合併症を防ぎ骨や歯の発達に必要
Calcium
helps prevent preeclampsia and preterm delivery in women, and is essential for strong bones and teeth

Increasing fish in the diet is an essential route to reducing micronutrient deficiencies.

魚を食べることによってこれらの微栄養素の摂取を増やせる

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Role of Women in Food Security

- Women's fisheries work is a key part of household food security strategies
  (Kawarazuka & Béné 2010)
- Women often primarily responsible for daily household food consumption
  - Directly through fishing (Bleige Bird 2007; Santos 2015)
  - Indirectly through fisheries income (Gnimadi 2004)
- Women sometimes expected to eat less or last
  (D'Souza & Tandon 2015)

SDG contribution: research questions fisheries scientists are asking

Role of fish in income and livelihoods

- How do we maximize economic benefits of fisheries without overexploiting them? How do we implement this without overburdening women?
- How do we ensure equitable benefit-sharing of fisheries resources among stakeholders, including women, men, minority groups?

Role of fish in food and nutrition security

- What are production technologies that are nutrition-sensitive? How do we integrate new approaches into existing production systems and practices?
- How do we ensure that home consumption of fish result in improvements in nutritional conditions among women and children?

Rice Field Fisheries Project, Cambodia (Phase I: 2012-2016, Phase II: 2016-2021)

Project Leader – Yumiko Kura (F)

Objective

Improved food and nutrition security of poor and vulnerable rural households in the Tonle Sap region

Approaches

- Increase ***wild fish*** populations in rice fields by creating refuge habitats for fish in dry season
- Build local community capacity to manage fish refuges and rice field environment
- Promote home consumption of fish, balanced diet, hygiene, clean drinking water

FEED the FUTURE · USAID FROM THE AMERICAN PEOPLE · WorldFish

Managing Aquatic Agricultural Systems to Improve Nutrition and Livelihoods in Bangladesh (2015-2018)

Project Leader – Shakuntala Thilsted (F)

Objective

Increase household income in poor, rural households Bangladesh and also improve nutrition through increased intake of nutrient-rich small fish

Approaches

- Integrating small indigenous fish species (SIS) in homestead pond polyculture of commercial fish with no additional cost or labor
- Fish harvesting tools suitable for women for daily food preparation

IFAD Investing in rural people · WorldFish

Community-based fisheries management project, Solomon Islands (Phase I: 2012 – 2016; Phase II: 2017 – 2021)

Component Leader – Joelle Albert (F)

Objective

To promote food and nutrition security in the Pacific food system through improved management and use of fish

Approaches

- Mixed survey method targeting women and young children to understand dietary diversity and their perspectives on nutritional issues
- Action research with communities to test interventions to improve dietary diversity and strengthening the role of fish, e.g.
  - Cooking classes, backyard vegetable gardening, health and sanitation awareness

Australian AID · Australian Government Australian Centre for International Agricultural Research · CGIAR Research Program on Fish · WorldFish

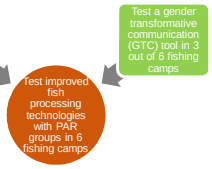
Improving Livelihood Security & Gender Relations in Rural Zambia through Post-Harvest Fish Value Chain Innovations & Social Change Interventions (2015-2017)

Project Leader – Steven Cole (**M**)

Objective

1.Design and test **improved post-harvest fish processing technologies** with people in fishing camps in the Barotse Floodplain to help reduce losses

2.Adopt **gender accommodative and transformative approaches** and test their contribution to improving gender relations in the capture fishery value chain



Left pictures: salting technology. Right picture: communication tool (drama skits that surface harmful gender norms and power relations in the capture fishery value chain

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