

# Aquaculture as a Vehicle for Positive Social Change: Lifting People out of Poverty

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-  **David Little** | University of Stirling
-  **Deva Nihal** | International Labour Organization



**Birgitte Krogh-Poulsen**  
Poulsen Consulting

- 🌐 Birgitte Krogh-Poulsen is an independent consultant with more than 15 years of experience in international development work in Africa and Asia, specializing in child protection, elimination of child labor, forced labor and human trafficking, and promotion of education and gender equality.
- 🌐 Krogh-Poulsen founded Poulsen Consulting in 2010, and has also worked as chief technical adviser for the International Labour Organization (ILO), first in Lusaka, Zambia, and then in Bangkok, Thailand. Earlier, she worked for NIRAS Consulting Engineers.
- 🌐 Currently, Krogh-Poulsen is a member of the Global Aquaculture Alliance Standards Oversight Committee.



**Dr. David Little**  
University of Stirling

- 🌐 Dr. David Little is a professor of aquatic resources and development at the University of Stirling in Scotland. There he contributes to the core postgraduate-taught MSc programs in sustainable aquaculture, aquatic pathobiology and veterinary studies in both the production systems, and reproduction and genetics modules.
- 🌐 Dr. Little has 30-plus years of experience in tropical aquaculture, spending 15 years in Thailand.
- 🌐 Currently, Dr. Little is a member of the Global Aquaculture Alliance Standards Oversight Committee.

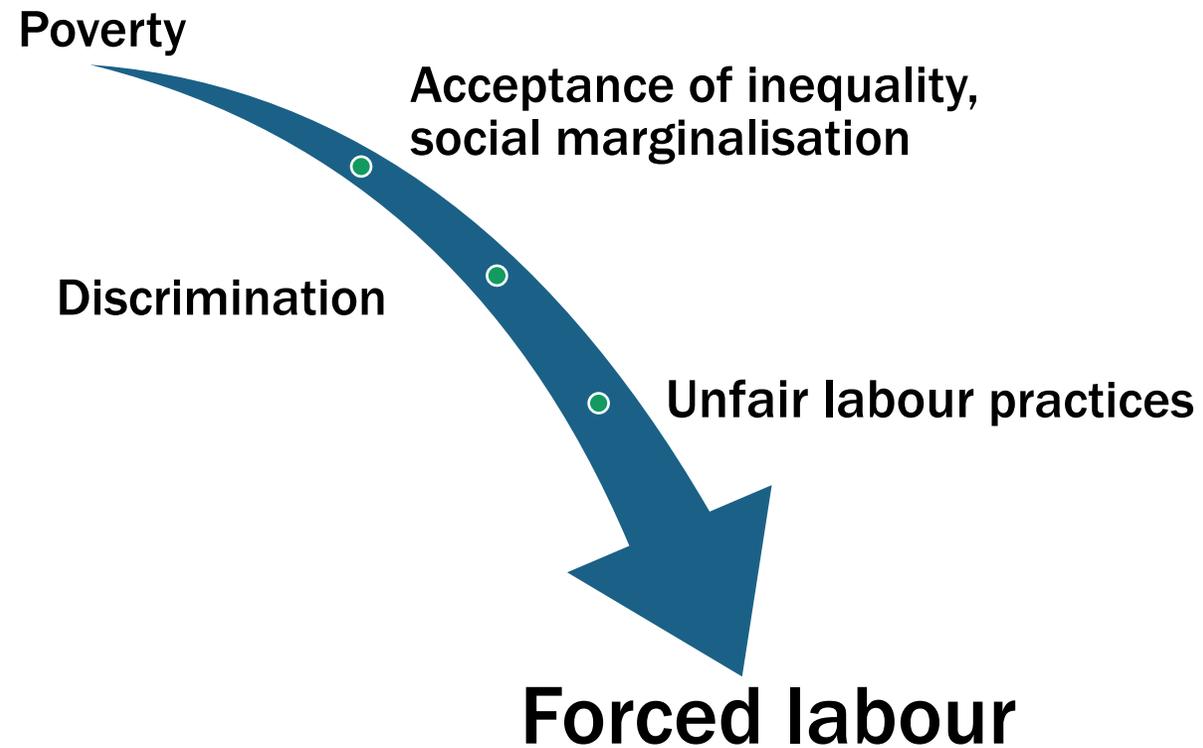


**Devagiri Nihal**  
International Labour Organization

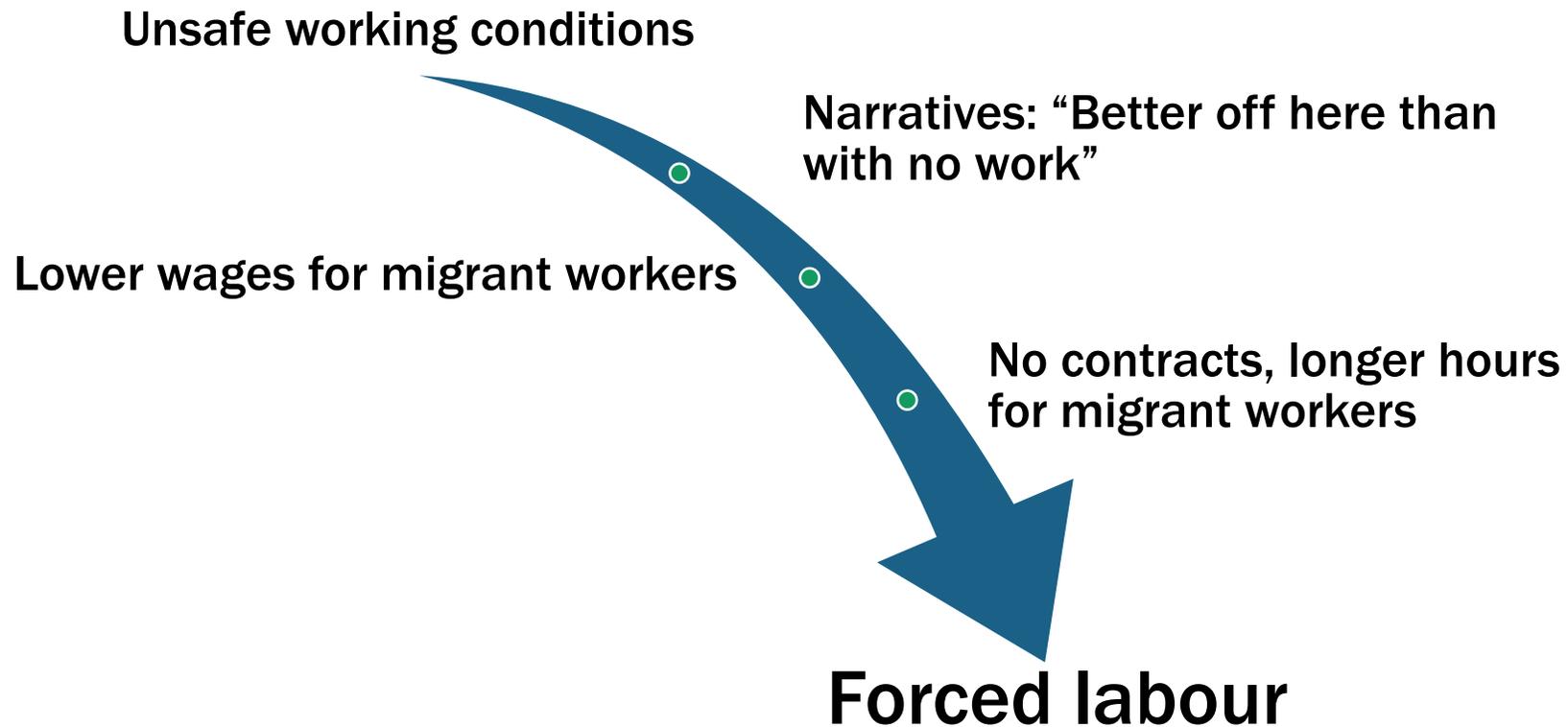
- 🌐 Devagiri Nihal is national program manager at the International Labour Organization (ILO) in Sri Lanka.
- 🌐 At ILO, Nihal works on multiple LEED (Local Empowerment through Economic Development) projects in a variety of industries, including aquaculture.
- 🌐 Nihal is a graduate of the University of Perdeniya in Sri Lanka, earning a BSc in agriculture and an MBA in economics.

- 🌐 Social responsibility in the seafood industry is more than the absence of forced labor in the supply chain.
- 🌐 Forced labor is the far end of a spectrum of complex social and economic issues and human-rights abuse.
- 🌐 To prevent and eliminate forced labor in the seafood industry, root causes must be addressed.
- 🌐 Root causes are many, and they vary across countries and communities. But one cuts across: poverty.
- 🌐 Poverty is not just a question of low income. It is a web of social and economic marginalization and lack of opportunities and access to services.
- 🌐 Aquaculture can be a critical contribution to breaking poverty spirals. But it must be done right!

# The Drivers



# The Drivers

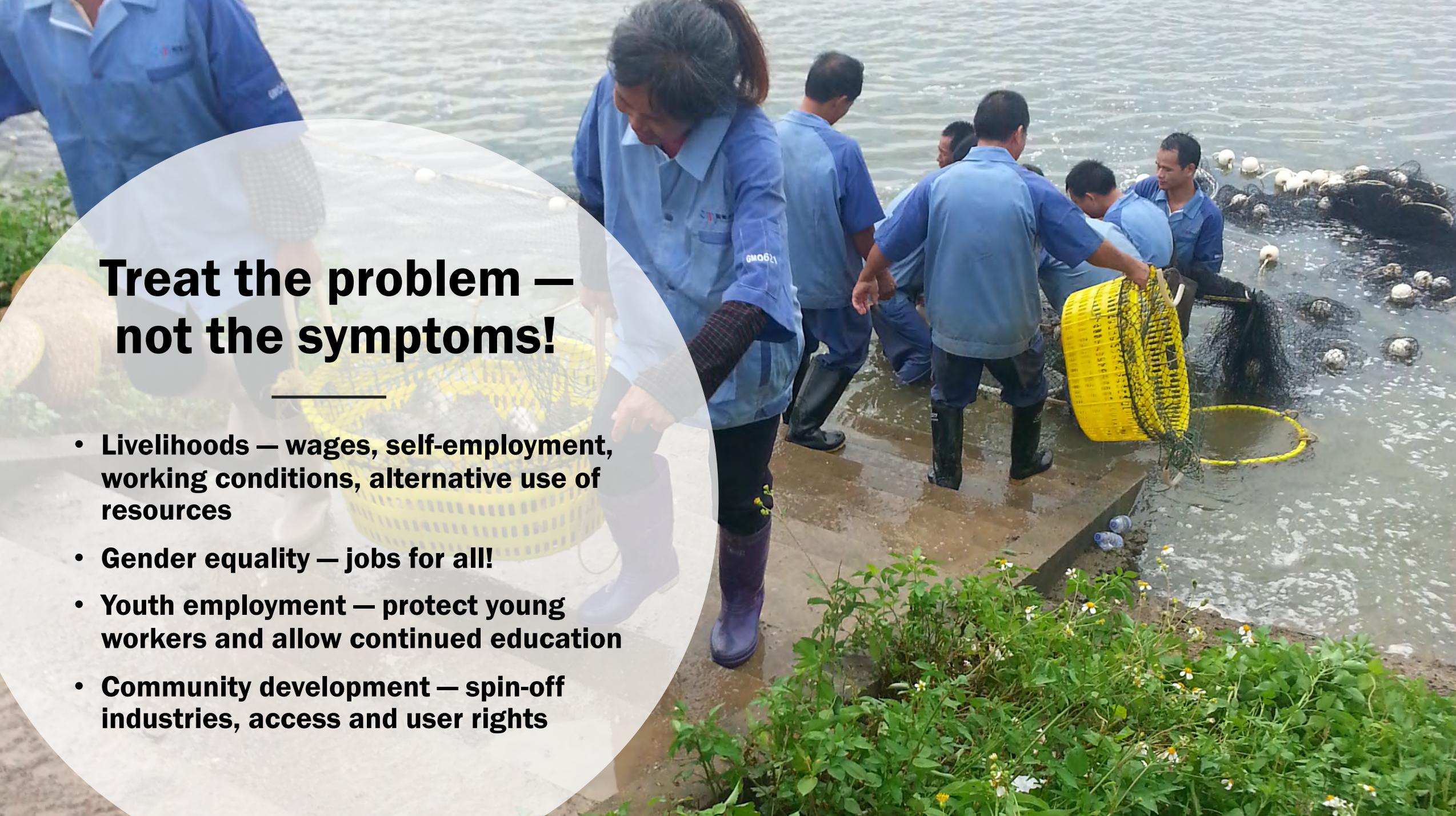


# Treat the problem! Not the symptoms!

Fundamental  
livelihoods and  
opportunities

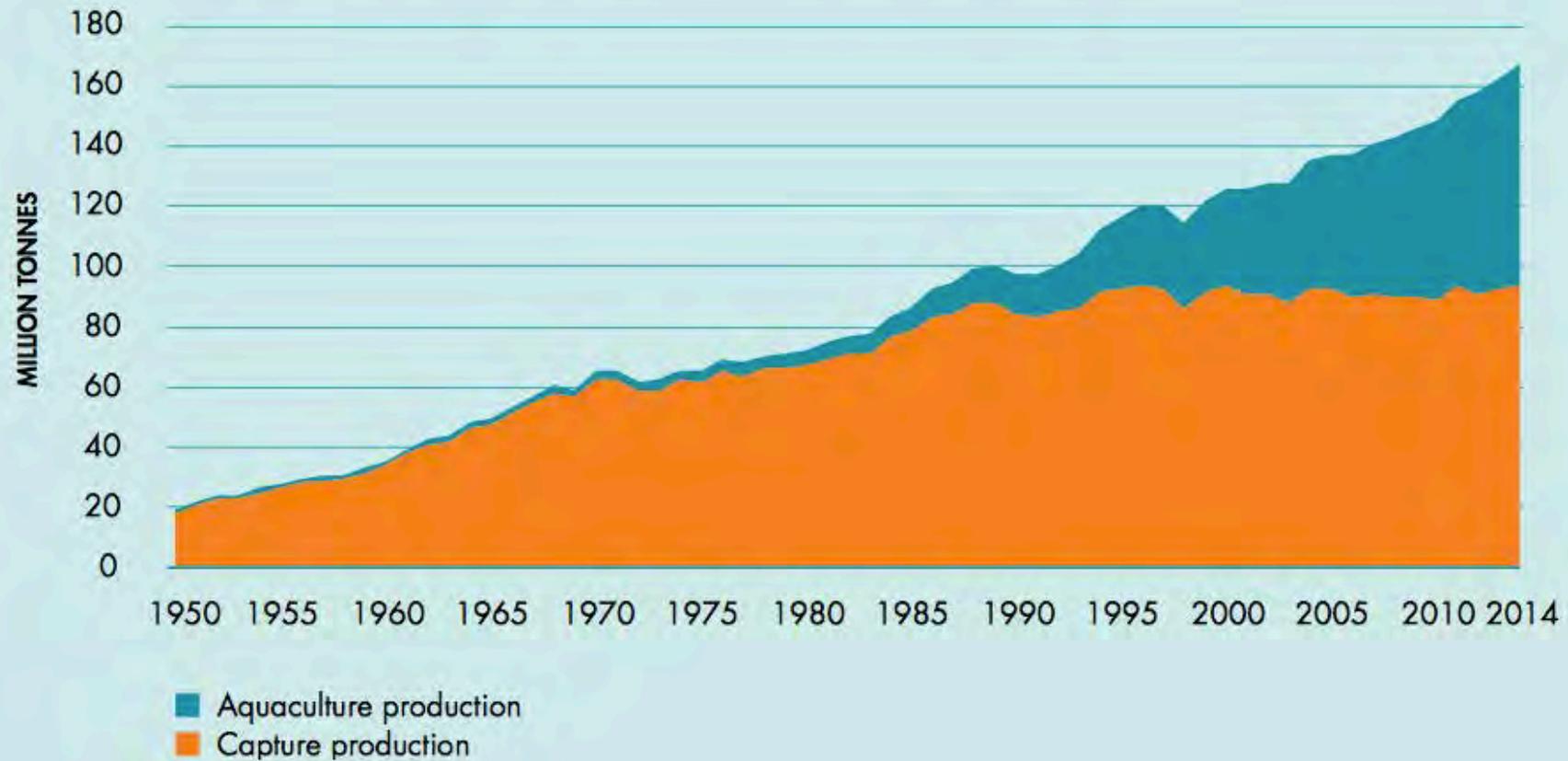
Fair working  
conditions and  
safe migration

A (socially) sustainable  
seafood industry



## **Treat the problem — not the symptoms!**

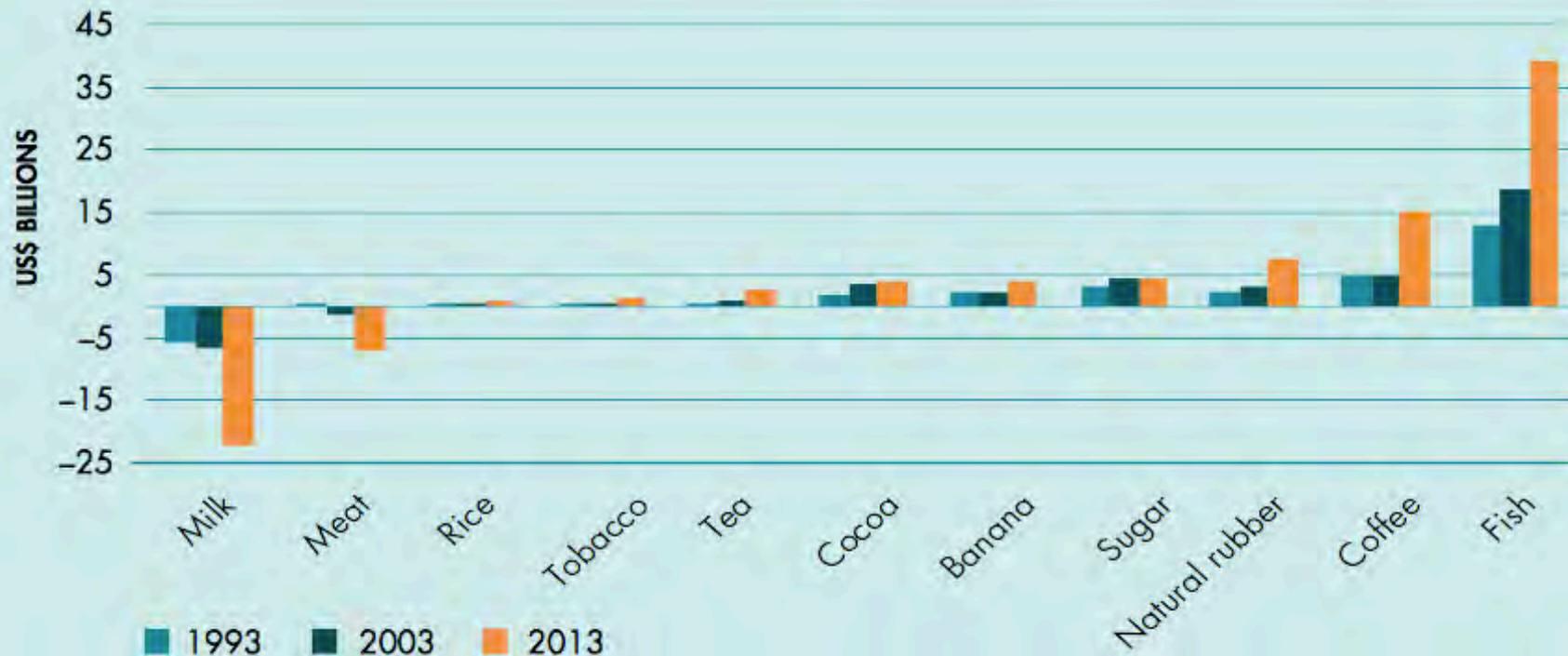
- **Livelihoods — wages, self-employment, working conditions, alternative use of resources**
- **Gender equality — jobs for all!**
- **Youth employment — protect young workers and allow continued education**
- **Community development — spin-off industries, access and user rights**

**FIGURE 1****WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION**

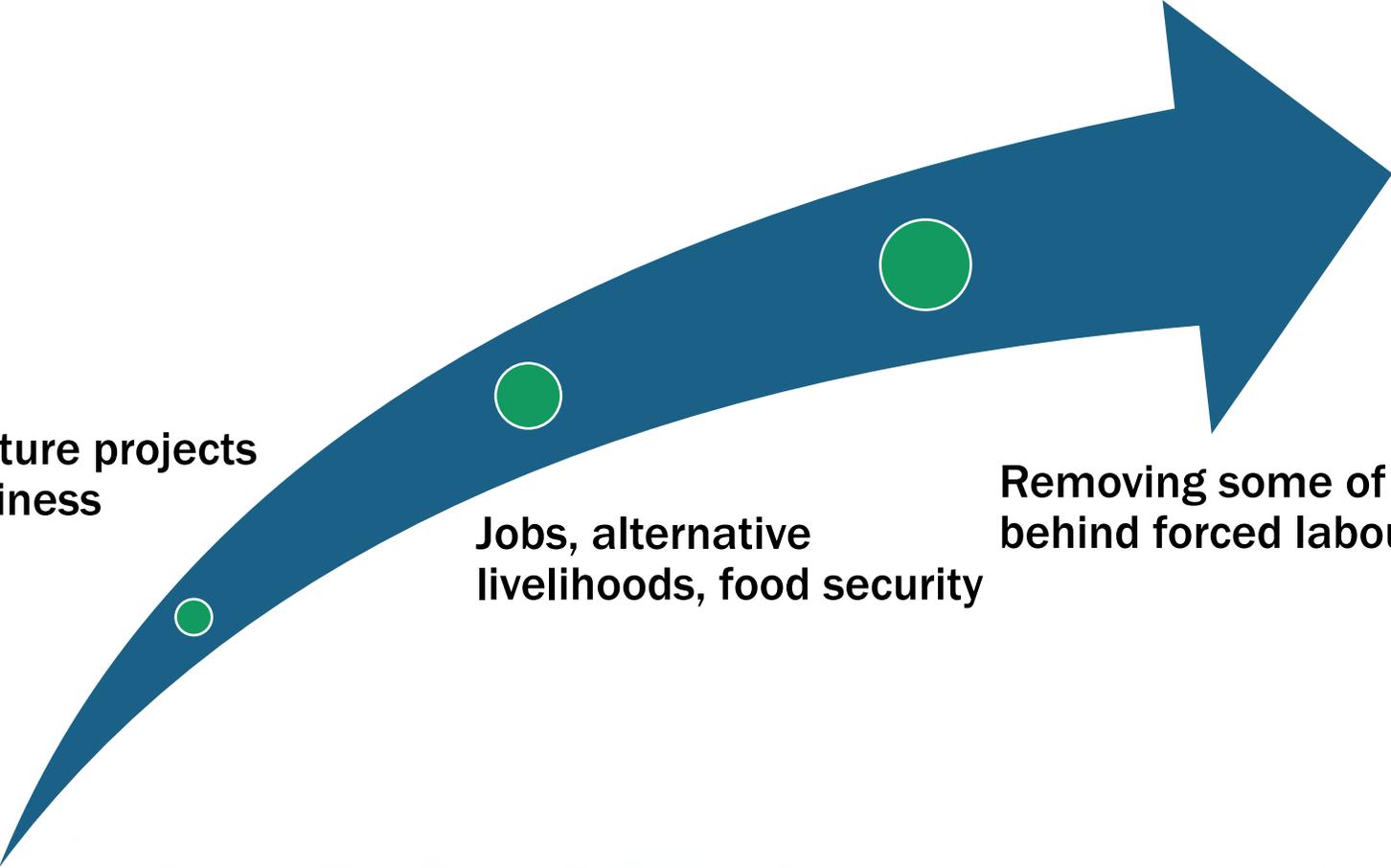
# Fish is the most valuable exported agricultural commodity from developing countries

**FIGURE 20**

## NET EXPORTS OF SELECTED AGRICULTURAL COMMODITIES BY DEVELOPING COUNTRIES



# Treat the problem! Not the symptoms!



Aquaculture projects  
and business

Jobs, alternative  
livelihoods, food security

Removing some of the drivers  
behind forced labour



# Local Food Chains & Employment

- **Income from 'shrimp' in extensive ponds southeast Bangladesh is less than half of total pond income**
- **Employment gains for the poorest groups**









# 'The fifth quarter... considering the whole animal

Zinc levels in freshwater prawn claw are 100x more than in the premium 'tail'



Legs

Freshwater prawn brains contain n-3 at levels of more 750mg per 100g edible product-equivalent to those in the 'best' marine species



Heads

**ஊர்தீக கஂலீர்டைக ஜுலீன் ஈனா கலீலுலுழைலீலீ வகாசரீக  
புருளாதார அபிவிருத்திக கருத்திட்டத்தினூடாக மக்களை வலுவுட்டல்  
**LOCAL EMPOWERMENT THROUGH ECONOMIC DEVELOPMENT (LEED) PROJECT****



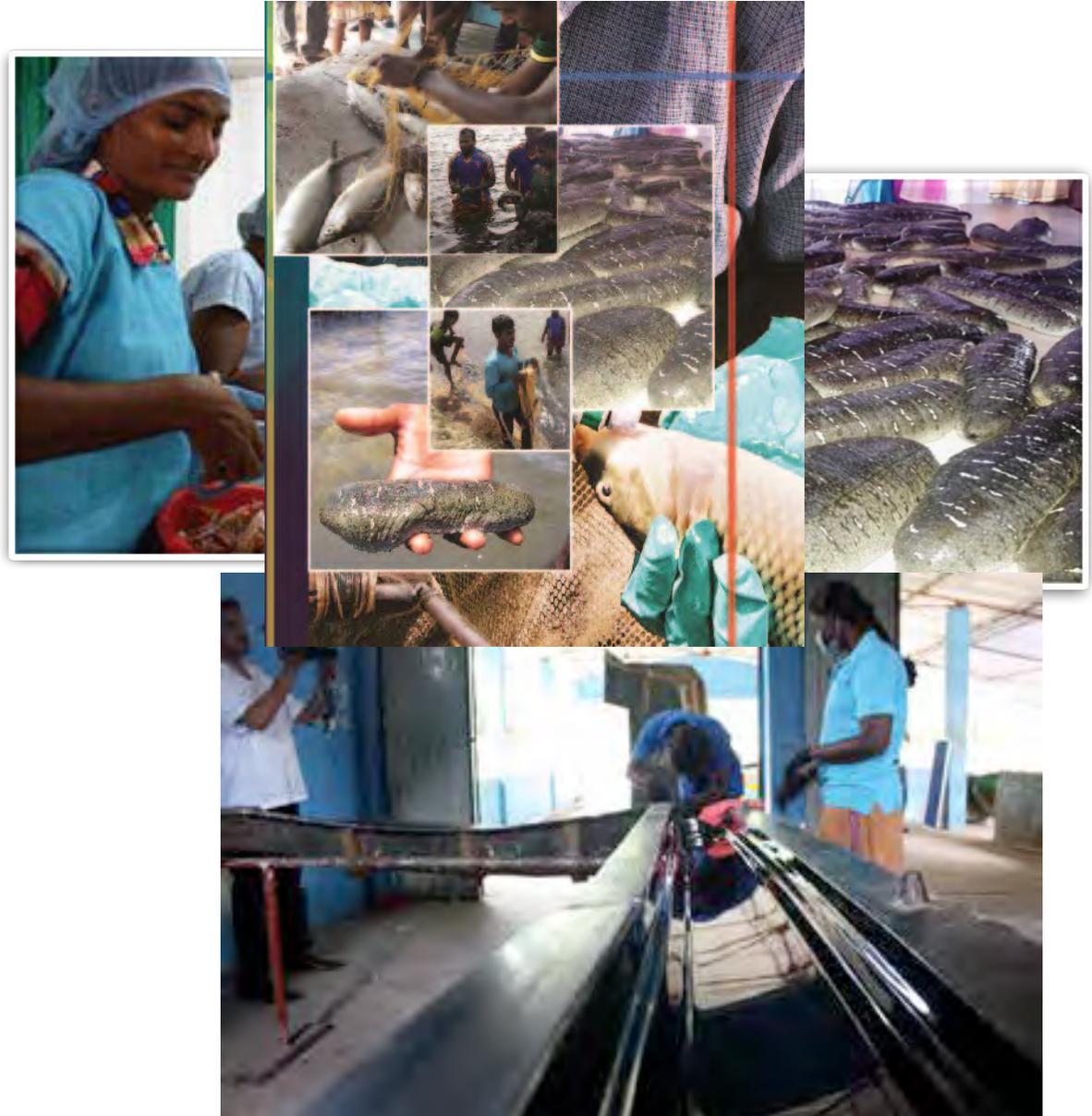
# Reasons for LEED strategy to diversify income from wild fisheries

- Contribution from wild catch to national production was declining (3% to 5%).
- Dwindling resources, productivity as a result of income.
- Difficulty in planning their lives. Poverty was high in the community.
- Women and others were not included in the development process.



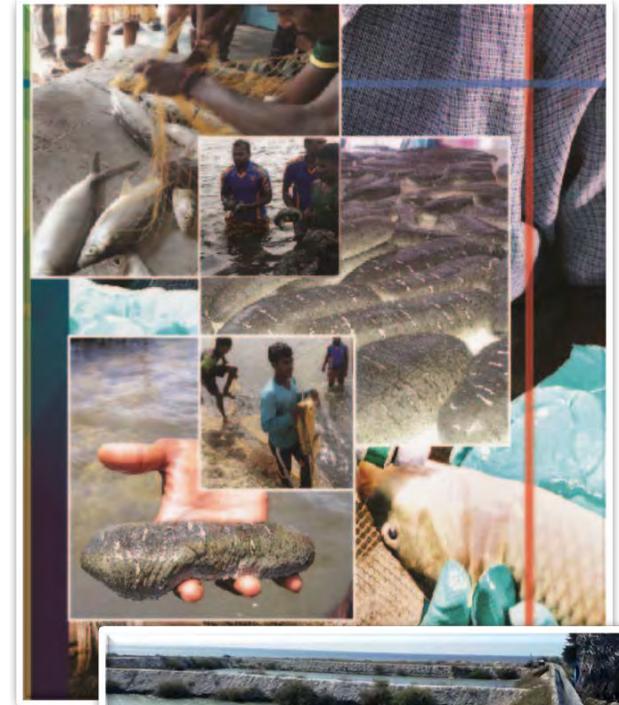
# What LEED project has done in aquaculture in the north

- Carrying out **VCD studies** in the aquaculture.
- Support to set- p **women/coop-managed aqua farms** for sea cucumbers, sea bass, milkfish, prawns, mud crabs.
- Promoting **value addition and setting up value-added enterprises** along the value chain.
- **Linking with markets.**
- Facilities to establish **supporting industries** (feed, boats, fishing gears, etc).
- Linking with the **BDS services** (training, technology, finance, markets).



# Aquaculture's contribution to poverty reduction in the north

- Aquaculture growth reflected in all value-chain segments of the industry.
- Basic income of USD 30 per month has increased to USD 600-700 per month.
- A source of employment for poor young men and women (more than 60% are women).
- Contributes to food security for those who are more vulnerable (30-40% of beneficiaries are highly vulnerable).
- Assured a consistent income for the poor (more than 80% of the people).



# Mainstreaming Gender

- More women are employed, and upward mobility for women assured.
- Changes in attitudes of men regarding women contributing to the family, community and economic role in development.
- Improved active participation of women in membership and board of director levels in cooperatives.
- Women's equal participation in development activities is widely recognized (local and provincial levels).
- Policy areas: Review of cooperative bylaws and development of status ultimately in national policy to recognize women's role in cooperatives.



# Lessons Learned

- Huge potential for **rural economic development** (risks of other opportunities are high/lack of market/SME failures).
- Market-based, demand-oriented interventions helps to solve complex issues such as **indebtedness and vicious cycle of poverty** in the fisheries sector.
- **Strict management** and technology/**monitoring and support services**, etc. should be in place. Start with species that depend on naturally available feeds and build on it.
- Will only be viable if it is **commercial scale** and linked with the market. **Income should be visible. Private sector participation is a must (community/cooperative/private sector model).**
- **Community awareness and participation** is also compulsory as there are community level issues to be solved.