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Climate Change Impacts on Aquatic Foods in the Context of Global Food Security Needs

EP Intergroup Climate Change, Biodiversity & Sustainable Development

Manuel Barange

Director, FAO Fisheries and Aquaculture Division
Food and Agriculture Organization of the UN
Rome, Italy

Manuel.barange@fao.org

@Manu_FAO

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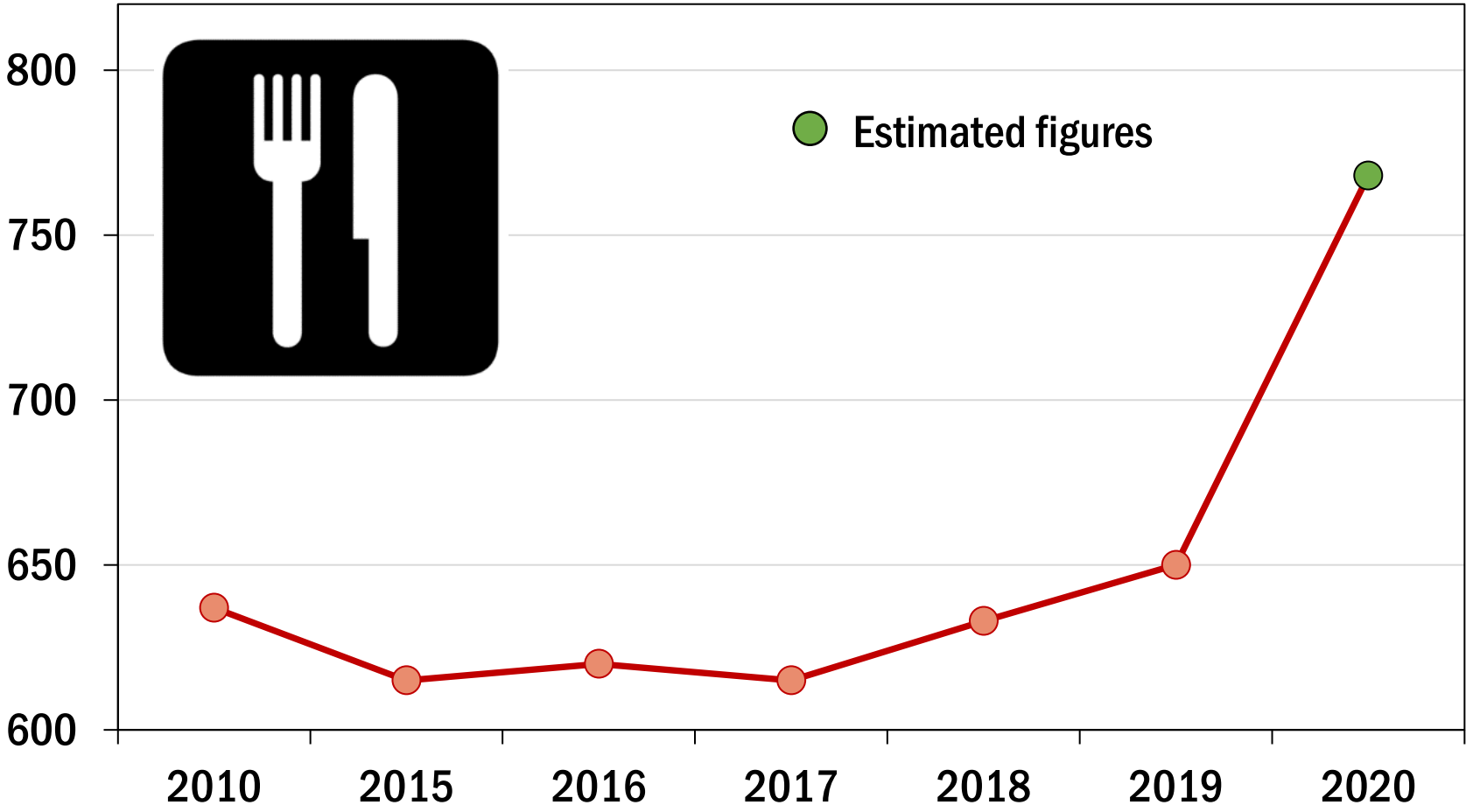
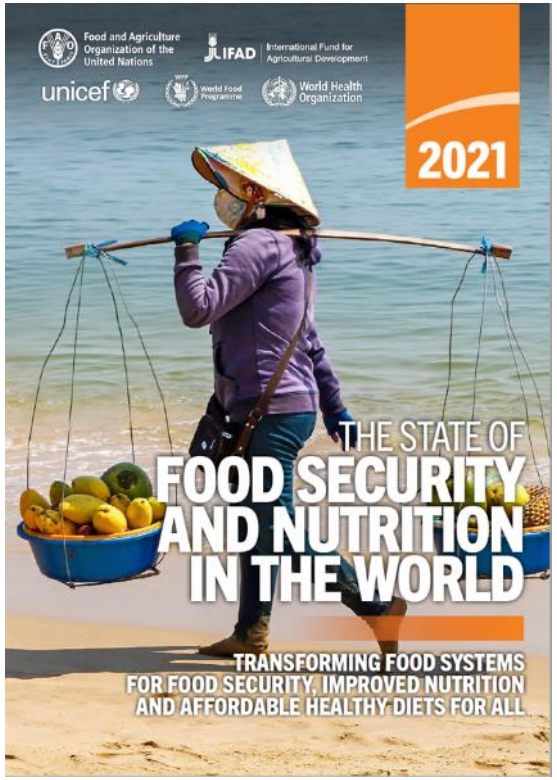
Undernourished People (Millions)





Changing trajectory is essential, and requires action

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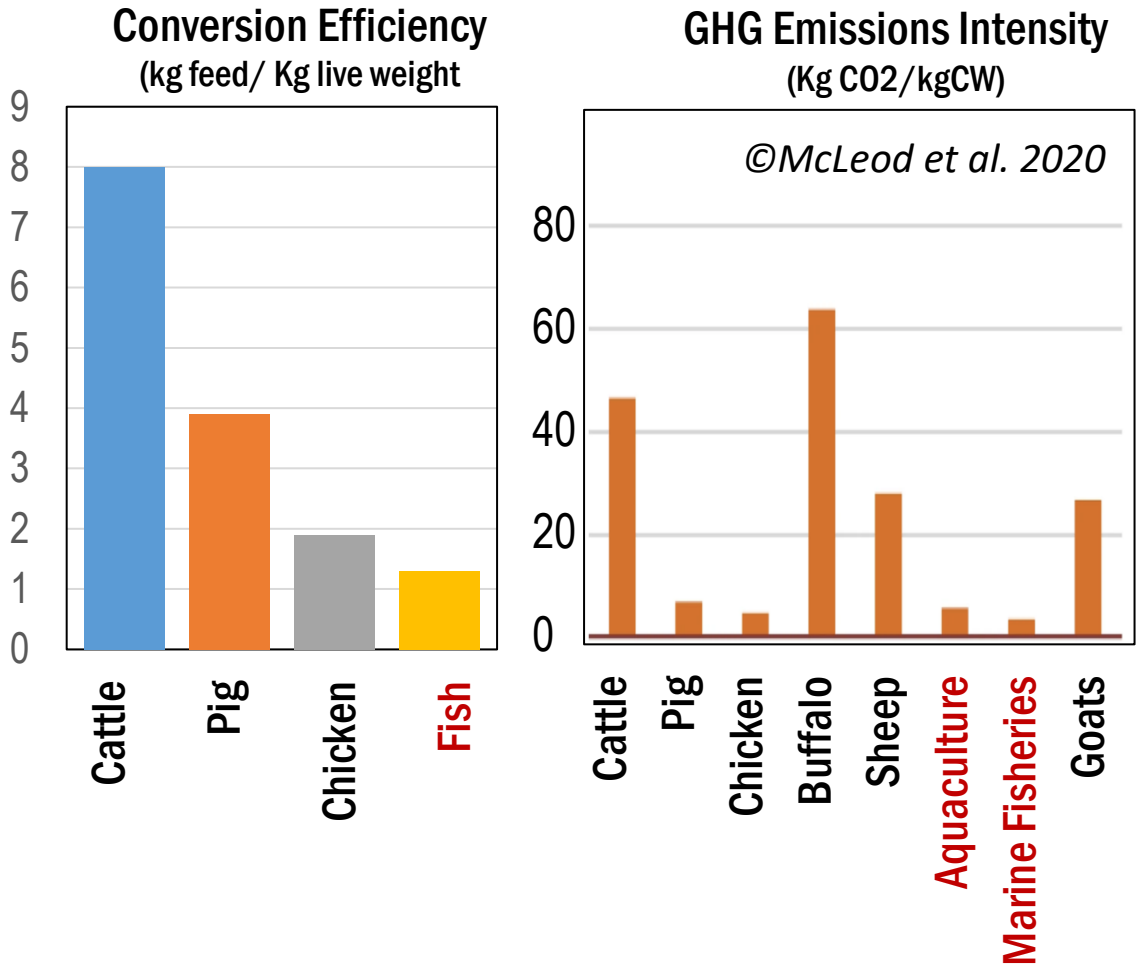
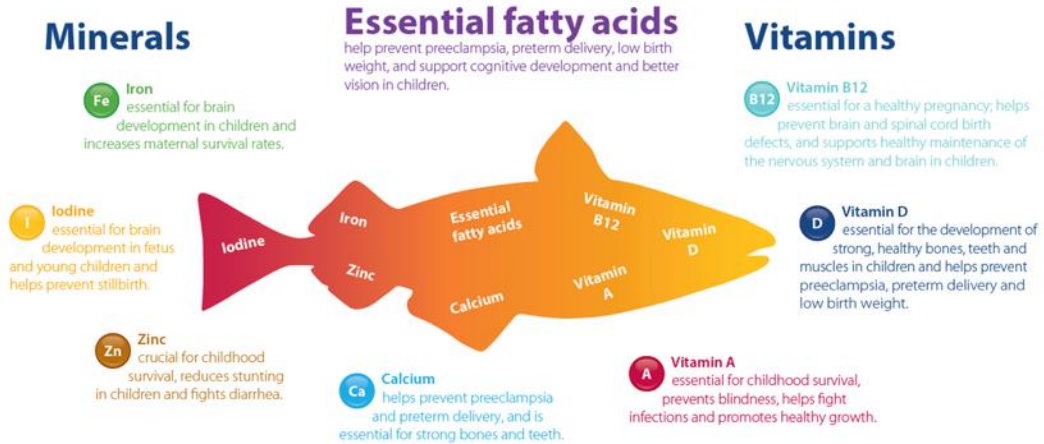
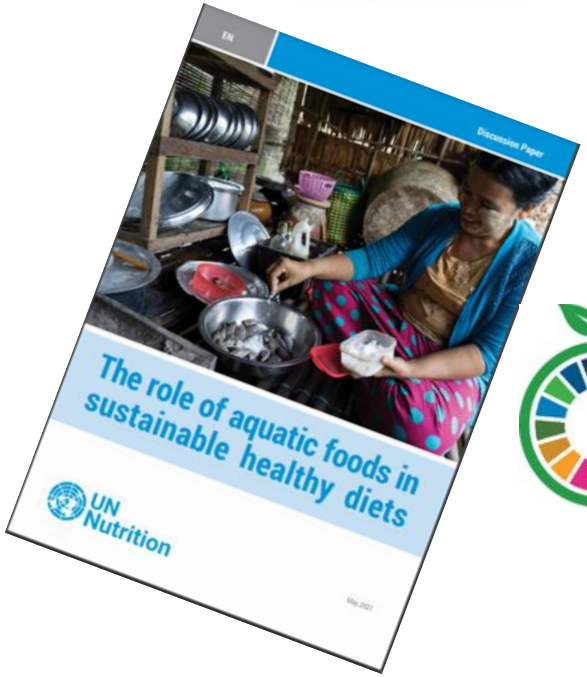
Why Aquatic Foods?







UNITED NATIONS FOOD SYSTEMS SUMMIT 2021

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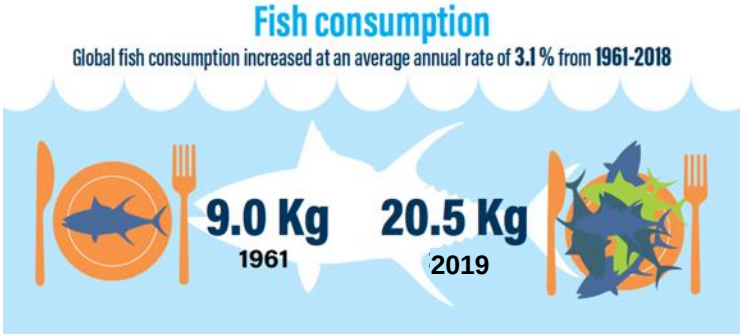
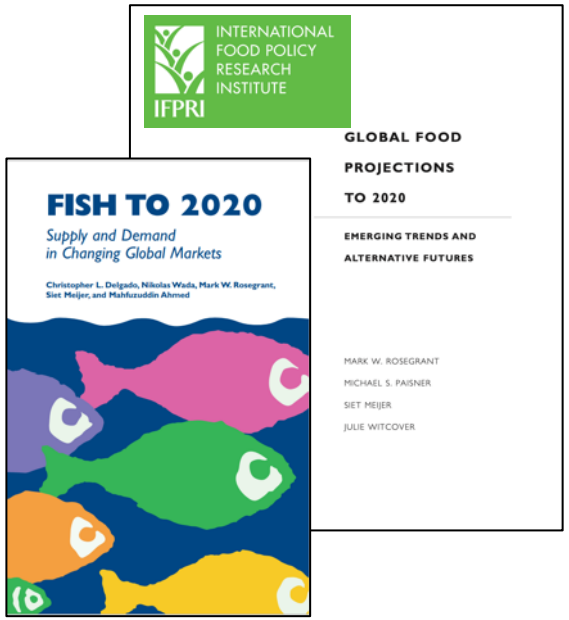
Aquatic Foods: beating expectations





	2020 Baseline Projection
Total Fish Food	130.1Mt
% Aquaculture	41%
Consumption	17.1kg/p/yr

Significant under-estimation of recent aquatic production due to:

- *Unanticipated new technologies*
- *Globalization and international trade*
- *Policy on aquaculture and fisheries*

Can we replicate this as we move to 2050? What is needed to do so?

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Blue Transformation – A FAO Priority Programme

Feeding the world through aquaculture intensification and expansion

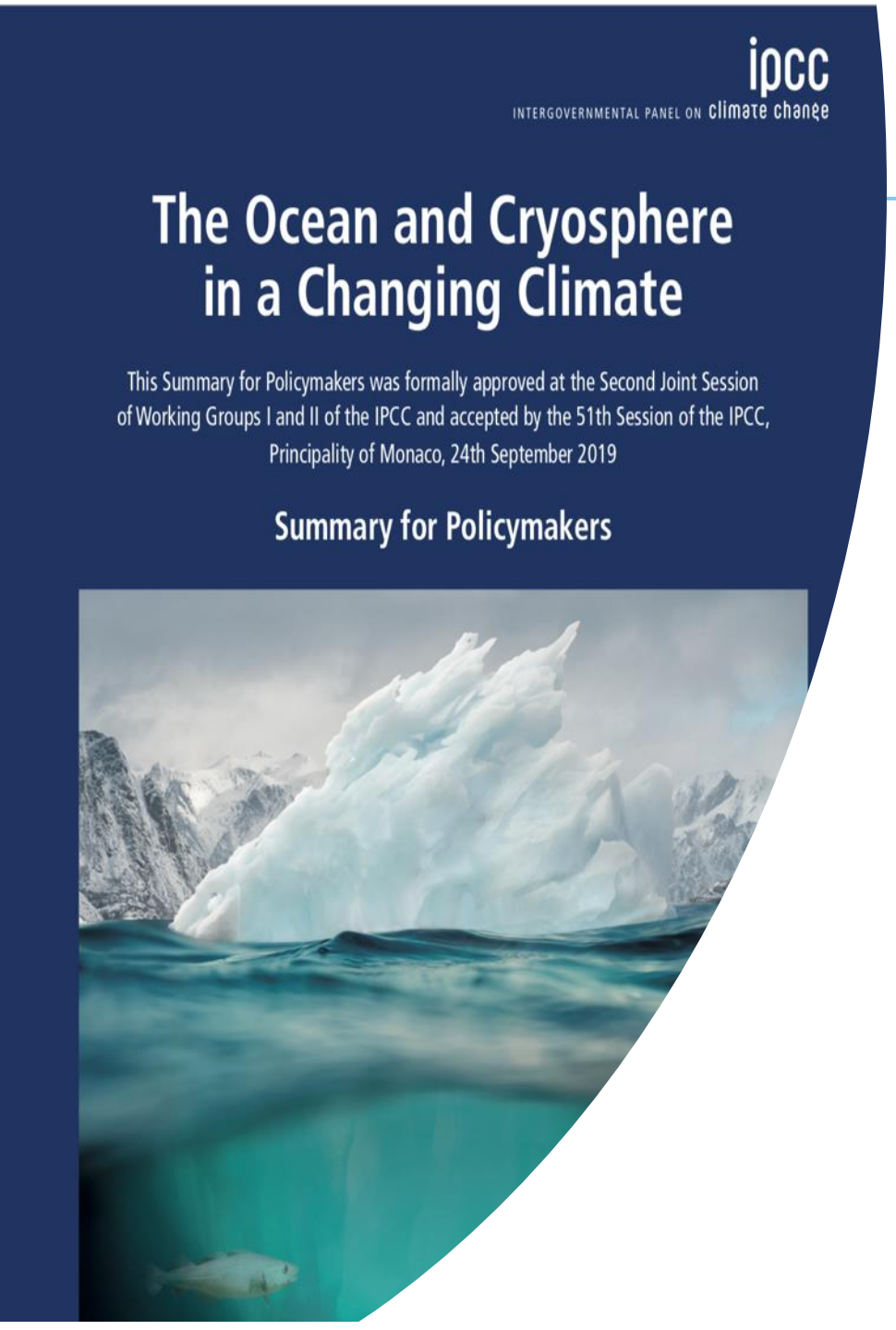
Target: Achieve 35-40% growth in global aquaculture by 2030, produced sustainably

Transforming Fisheries through better management

Target: Ensure that 100% of aquatic systems are under effective and equitable management

Improving Fish Value Chain efficiency, viability and inclusiveness

Target: Upgraded value chains ensure less loss and waste, increased access to resources and markets, leading to growth in fish consumption



Climate Change: The ultimate disruptor

Productivity – Distribution - Seasonality

- ❖Inadequate Institutions
- ❖Inefficient Management Systems
- ❖Fishing operations affected
- ❖New Offloading/ Processing required
- ❖Consumer Awareness essential

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Solutions: *Blue Transformation* and climate change

Provide evidence at management scale

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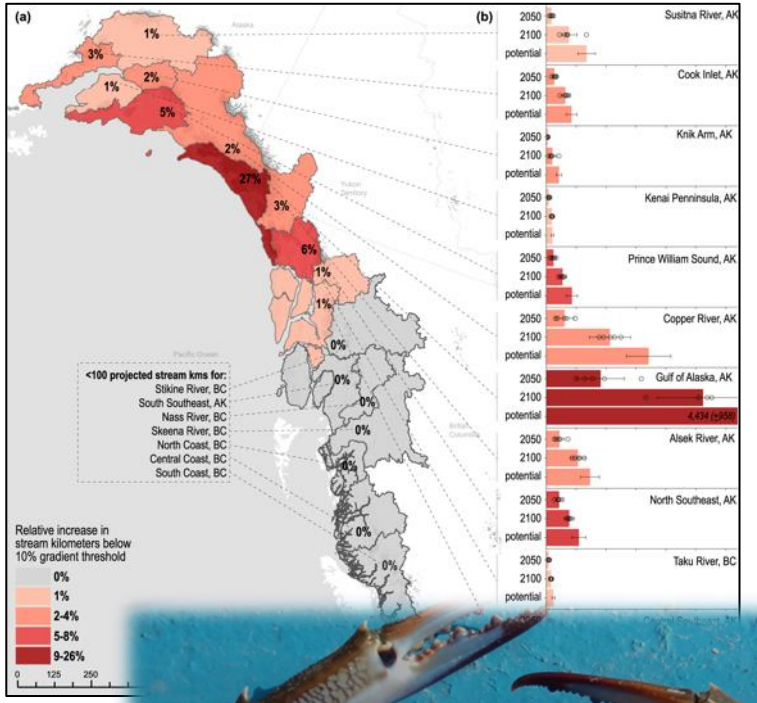
Solutions: *Blue Transformation* and climate change

Provide evidence at management scale

Recognize wins and losses and act accordingly

Pitman et al. 2021. Nature. Glacier retreat creating new Pacific salmon habitat



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Adaptation: the forgotten commitment of the Paris Agreement

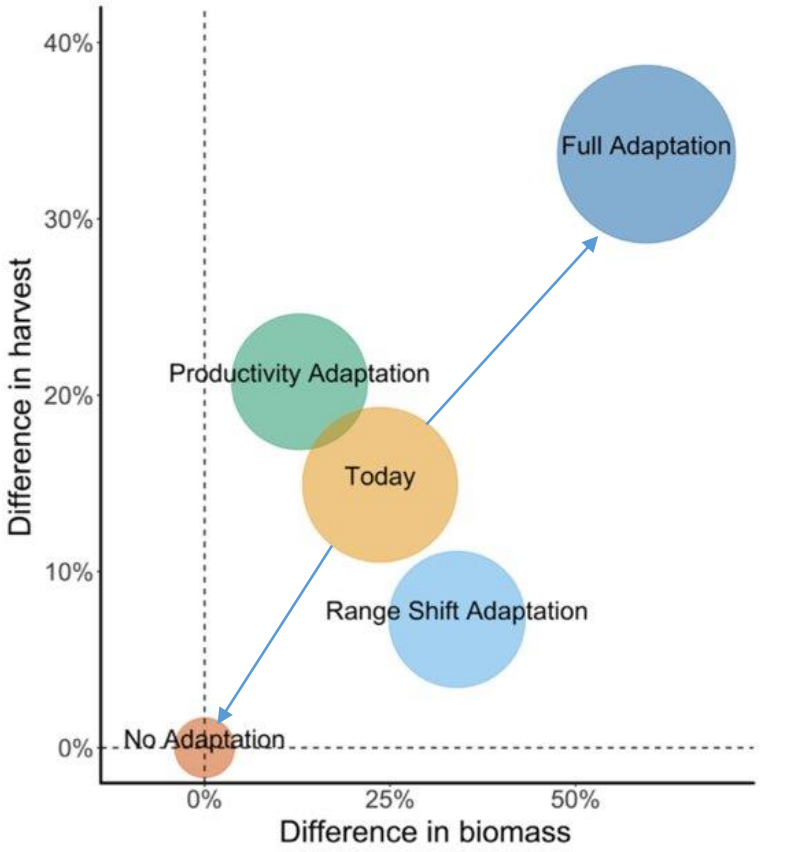
- Provide evidence at management scale
- Recognize wins and losses and act accordingly
- **Adapt for success, not just to reduce impacts**

SCIENCE ADVANCES | RESEARCH ARTICLE

ECOLOGY

Improved fisheries management could offset many negative effects of climate change

Steven D. Gaines[1]*, Christopher Costello[1], Brandon Owashi[1†], Tracey Mangin[1†], Jennifer Bone[1†], Jorge García Molinos[2,3,4], Merrick Burden[5], Heather Dennis[6], Benjamin S. Halpern[1,7,8], Carrie V. Kappel[7], Kristin M. Kleisner[5], Daniel Ovando[1]



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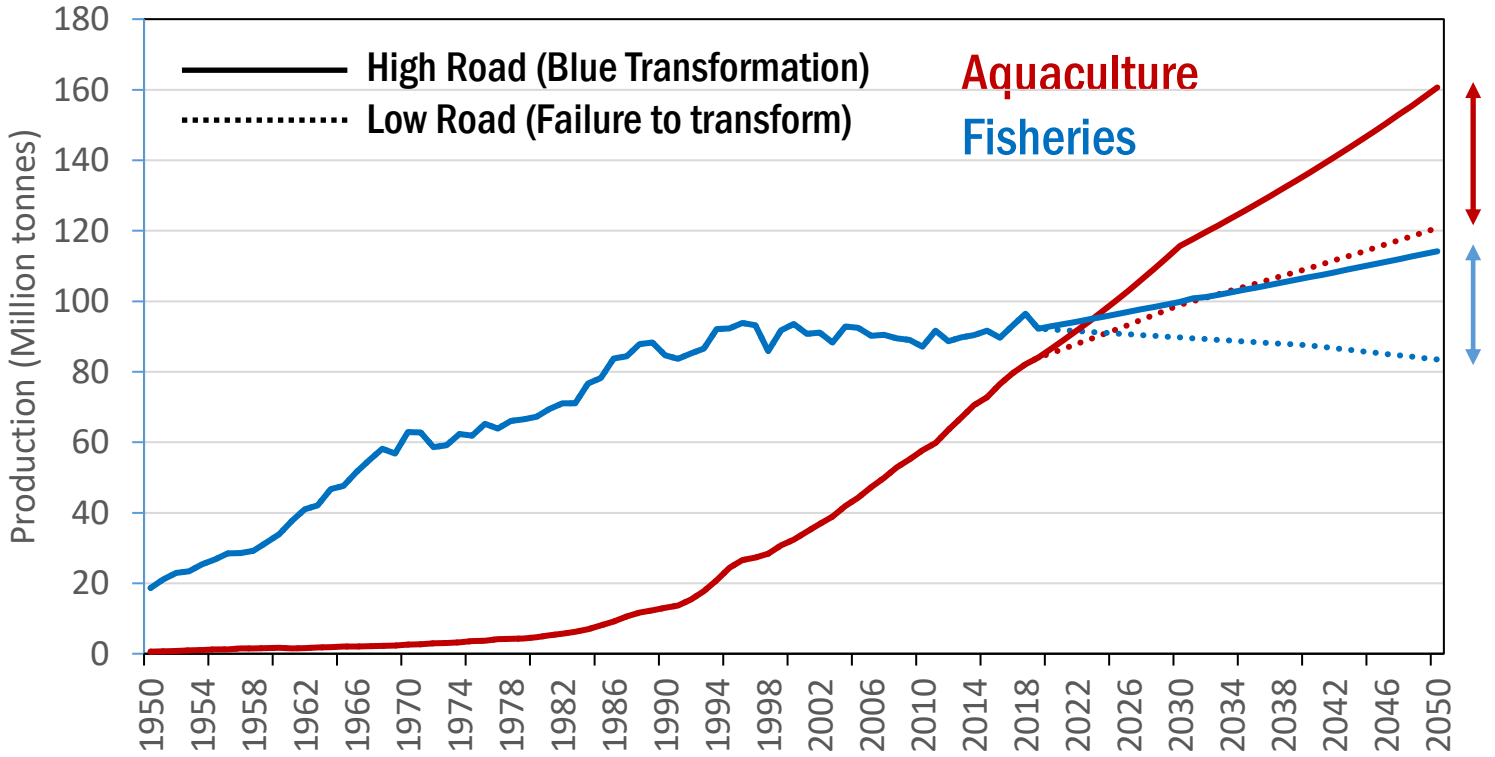
The consequences of Blue Transformation and Climate change adaptation



HR = 25.6 kg/person/yr by 2050
LR = 18.5 kg/person/yr by 2050

@ UN Nutrition Report 2021
@ Golden et al. 2021, Nature

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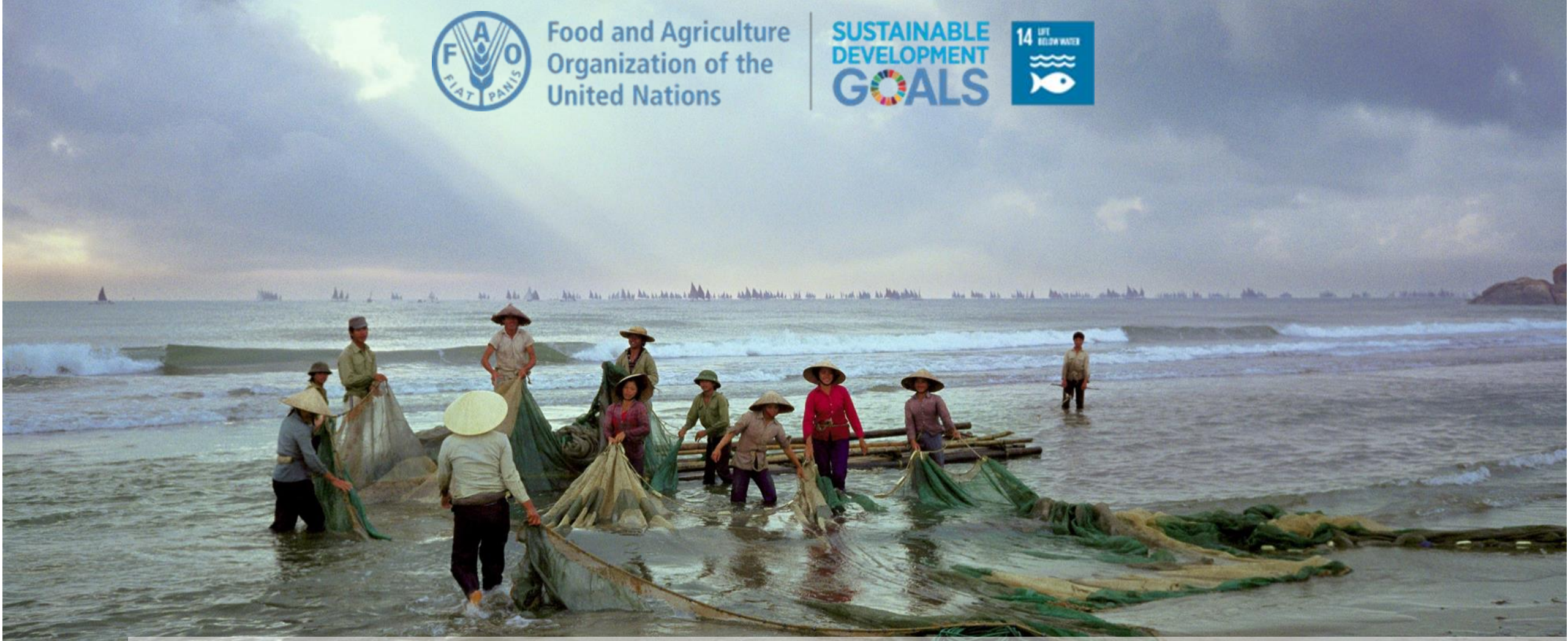
SUSTAINABLE DEVELOPMENT GOALS



- All food production systems have impacts that require trade-offs
- When produced sustainably fish products are the ultimate nature-based solution
- Aquaculture is the present and future, but it must grow
- A world with hunger is a world without peace – so let's act