

# **Food Security and vulnerable populations: perspectives on fish and the sustainable use of marine resources**



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# Outline

- Background
- Fish and food security
- Gender issues
- Sustainable oceans and fisheries—US submission for Rio +20
- Opportunities





# Background

- The world faces enormous challenges of improving human well-being given climate change, growing population, persistent poverty, diminishing natural resources and environmental degradation.
- 925 million people are estimated to be undernourished (FAO, 2010a). Micronutrient deficiencies affect about two billion people
- Sustainable fisheries are critical to global food security.



# U.S. Office of Marine Conservation

- Managed under the U.S. Department of State, Bureau of Oceans, Environment and Science (OES).
- Dr. Kerri Ann Jones-Assistant Secretary of OES, David Balton, Deputy Assistant Secretary for Oceans.
- **OMC** manages fish treaties and issues such ocean acidification, marine debris, illegal fishing, and aquaculture.
- **Office of Polar Affairs** manages marine mammals, polar issues, seabirds
- **Office of Ecology and Environment** manages coral reefs.



# OMC portfolios

- **Staff:** Foreign Service Officers, Foreign Affairs Officers, SeaGrant Fellows, U.S. Coast Guard representative, NOAA.
- **Topics:** salmon, pelagic fish, marine debris, IUU, shark finning, Port State agreements, sea turtle excluder devices, ocean acidification, outreach.
- **AAAS Fellow portfolio:** APEC, GTA (marine and land pollutants) ocean acidification, food security and fish, women's issues.





# Bilateral and multilateral US Fisheries and Ocean agreements

Year	Topic	legislation
	Atlantic Tuna Treaty	
1982	Salmon conservation	16 USC 3601
1995	Northwest Atlantic Fisheries	PL 104-43
	International dolphin conservation	16 USC 1361, 11 Stat 1122
1997		
1994	Southern bluefin Tuna	16 USC 951 -961. 64 Stat 777
1950	Tropical Tuna Commission	
1982	Northern Pacific Halibut	50 Stat 325, 97 Stat 78
1992	anadromous fish stocks	PL 102-567



# treaties con't

1985	Pacific Salmon Commission	16 USC 3631
1994	Pollock Resources the North Bering Seas	
	Pacific Coast Albacore Tuna vessels and	PL 108-219 118Stat
2004	port privilege	615
2007	Pacific Hake/whiting	PL 109 -479
1988	South Pacific Tuna Treaty	USC 973 et seq
	Western and Central fisheries	PL 109-479 120 Stat
1997	Conservation	3575
	High Seas Fisheries Resources in South	
2011	pacific ocean	
	Inter American Convention for the	
	protection and conservation of sea	
2001	turtles	
		6 UST 2836, 16 USC
1954	Great lake fisheries	932
2001	Conservation of Albatrosses and Petrels	
		16 USC 1822(a), 16
1990	Informal fisheries consultation	USC 1855(d),



# Internal U.S. fish agreements

- The Katie John Case: sustainable fisheries and the State of Alaska.
- U.S. Endangered Species Act—managed by U.S. Department of Interior Fish and Wildlife Service—listing of Pacific Salmon runs
- Bilateral Agreements with Canada (including Keystone Pipeline and other energy agreements)





## Recent Congress Action (November 2011)

Port State Treaty.  
President Obama signed  
treaty for US to help  
control illegal fishing and  
port entry of unflagged  
vessels.



# Fisheries and food security

Global food production must double in order to feed a world population of 9.2 billion in 2050. (FAO 2010).

***Capacity Framework** for Sustainable Development need to build capacity through education, emerging technology and community engagement*

***Food insecurity** will increase with increasing climate uncertainty and affects global peace.*





# Feed the Future

- U.S. Department of State created Feed the Future policy and the global women's programs under Secretary Clinton. Feed the Future objectives include :
  - Identify climate smart alternatives such as indigenous plants and animals that can provide security for vulnerable populations.
  - Provide initiatives to encourage innovations and emerging technology to address food security.
  - Include a gender perspective to all projects.



An underwater photograph of a striped fish, possibly a surgeonfish, swimming in clear blue water. The fish is positioned vertically, facing upwards, with its head near the top of the frame. The background shows the texture of the water and some light filtering through.

***“ We cannot solve global problems  
using half of the global capacity”***

- U.S. Secretary Clinton initiatives on gender and women’s issue as part of U.S. foreign policy
- **Global Women’s Issues** office established by Secretary Clinton under Ambassador Vermeer. Innovative programs include Mobile Women (supporting mobile technology for rural women), Changing Mindsets (supporting women in science), Mobilizing the Diaspora, encouraging secondary education opportunities, Muslim Women program, and others.





# APEC and Gender

- APEC Women Leaders' Network ([WLN](#)) APEC WLN is a network of women leaders from the public and private sectors, academia, civil society, as well as indigenous women, rural women and women in technology, which provides policy recommendations to officials of the Asia-Pacific Economic Cooperation forum (APEC).
- Asia-Pacific Gender Equity in Science and Technology ([APGEST](#)) initiative. The network organizes annual forums for women leaders from member countries to meet and discuss issues of common concern.



# Gender Perspective

- Globally, women are concentrated in micro and small enterprises. Between 60 and 70% of informal workers in developing countries are self-employed, including employers, own-account workers and unpaid family workers who contribute to family enterprises (ILO, 2002).
- In most developing countries, the main source of work for women is informal employment which consists of own-account work, street vending, independent home-based work, industrial outwork, contributing to non- agricultural family businesses, or domestic work (DESA, 2010).





# Gender and Fish

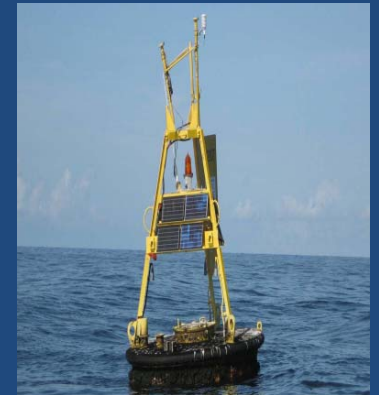
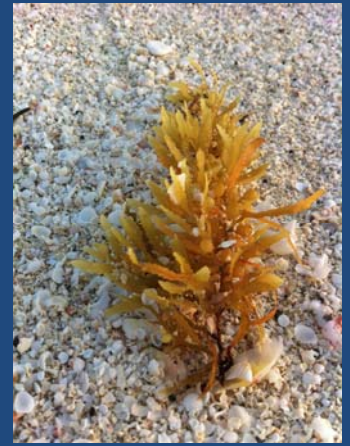
Fishing and marketing of fish are primarily men's domain, while women contribute about 52 per cent of the labor in processing and net-making, and 42 per cent on net maintenance and repair. Women are responsible for all domestic tasks such as water and fuel collection, in addition to food processing and preparation (NWRC, 2010).



# Rio 2012

*The United States is committed to using Rio+20 to:*

- Promote a ***green economy and green growth***, incorporating environmental and social concerns into economic development planning
- Improve the ***efficiency and effectiveness of the UN*** in support of national sustainable development efforts
- ***Involve stakeholders at all levels*** to promote sustainable development
- ***Build on our successes*** of the past twenty years to catalyze future action





An underwater photograph showing several fish swimming in clear blue water. A purple rectangular box is superimposed on the upper left portion of the image, partially enclosing the word 'progress'.

# progress

Since Rio in 1992, there has been progress in many areas:

- UN Fish Stocks Agreement
- Global Program of Action on land-based sources of marine pollution and debris
- Global Marine Assessment
- Global Ocean Observing System
- Int'l Convention on Control of Harmful Anti-fouling Systems
- Marine Protected Areas
- New Regional Fisheries Management Organizations
- New Regional Seas Programs



# US Submission to Rio 2012

Healthy oceans and coasts and their resources are necessary for global prosperity. Sustainable fisheries and aquaculture practices also play an essential role in ensuring global food security and a green economy. We support **reducing excess fishing fleet capacity**, including pressing for elimination of fisheries subsidies that contribute to overcapacity and overfishing; maintaining or **restoring fish stock harvest** to levels that do not exceed maximum sustainable yield; increasing transparency in fisheries regulation, management, and enforcement; implementing and sharing **sustainable aquaculture practices**; and combating illegal, **unreported, and unregulated fishing** (IUU), and destructive fishing practices.





# US Submission Rio 2012

**Ocean acidification** and changes in sea level are emerging issues that endanger the survival of individual marine species and entire marine ecosystems, increasing the vulnerability of coastal communities. Due to the global and connected nature of the oceans, the need for international collaboration and transparency is clear. Given the importance of data and assessments in oceans management, we support implementation of **an international observing network** for ocean acidification; we also support increased international collaboration on observation and research, including through the Process for the Assessment of the Marine Environment, and the **Global Ocean Observing System** to better understand and predict the changing conditions on the marine environment, biodiversity, and food security. Further, we support integrated, ecosystem-based, and science-based conservation and management, including: the use of spatial planning; addressing **land- and ocean-based sources of pollution**; and the continued establishment of **marine protected areas**.



# U.S. Rio goals

- Sustainable fisheries
- Control illegal fishing
- Ocean Acidification
- Marine pollution and debris (land based and offshore)
- Global data collection and collaboration
- Sustainable aquaculture
- Marine protected areas





# Future Steps

Education  
Innovation  
Conversation





# U.S. current considerations Fisheries & Food Security

- Eliminate excess fishing fleet capacity
- Promote sustainable fisheries, small scale aquaculture and education of women as strategies towards global food security
- Increase transparency in fisheries regulation
- Combat IUU fishing and destructive fishing practices
- Increase dialogue on fisheries as critical element of global food security





An underwater photograph showing several fish swimming in clear, blue water. The fish are of various species, including what appear to be striped bass and other smaller fish. The lighting is bright, creating a vibrant blue and white scene.

# Education

**Educate** girls and women in science and technology include sustainable fishery practices at every step of value chain.

**Support** women's recruitment, retention, advancement and leadership in aquaculture and small scale fisheries for micro finance opportunities.

**Work** with women at the grassroots level to provide and refine approaches in and acceptance of aquaculture and sustainable fish stock management.



# Innovation

- **Support women in innovation and technology** for sustainable aquaculture and fisheries at each step of the value chain.
- Small-scale, off- grid renewable energy technologies contribute to income-generating opportunities and economic empowerment of women in areas such as agriculture, aquaculture, fisheries and textile processing.
- **Women in science to support science for women.** National and regional networks, and the cultural perceptions of what constitutes appropriate activities for women inhibits women in science careers.





# Innovation

- Recognition of tendency to overlook women's micro and small sized enterprises in areas such as aquaculture.
- Support resources, credit and financing, and training and education for women entrepreneurs.
- Women's enterprises tend to use fewer, if any, technologies compared with men's enterprises, due to lower educational levels, less resource support and discomfort with technology (UNDAW, 2010; Huyer, 2008).



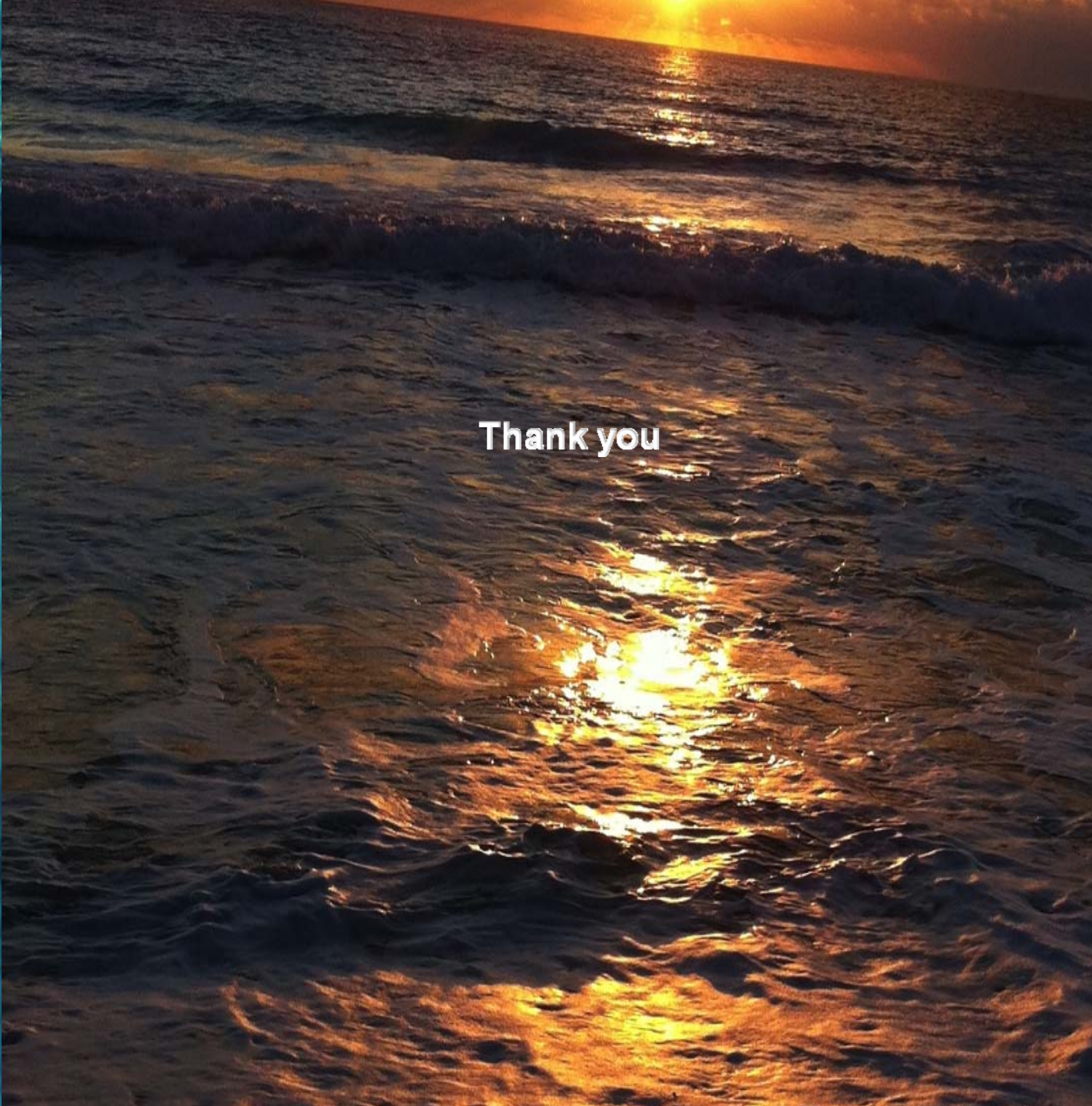
An underwater photograph showing several fish swimming in clear, blue water. The fish are of various species, including what appear to be snappers or similar reef fish. The lighting is bright, creating a vibrant blue and green color palette.

# Conversation

1. increased international collaboration on food security and sustainable fisheries issues. Include a gender perspective.
2. Propose a dialogue and forum with APEC WLC and APGEST on sustainable fisheries, gender, and food security.
3. Integrate sustainable fisheries, food security and gender into sustainable development conversations at Rio 2012 in June.







Thank you