



Welcome to the 29<sup>th</sup> Session of COFI  
31 January - 4 February 2011

## The State of World Fisheries and Aquaculture 2010



As for previous issues, we hope this 2010 version of SOFIA, based on contributions from approximately 50 authors, will **serve as a useful reference, for now and in the future.**

It is published in Arabic, Chinese, English, French, Spanish and Russian.

We apologize for the fact that the text you see on the screens for this presentation and my delivery is only in English, although there is interpretation into all official languages.



## Major changes over last 15 years

Increase in global aquaculture **production**

Rising **demand** for fish & fishery products

Growth in world **trade** of fish & fishery products

Global call for responsible **management**

The first edition of SOFIA was launched 15 years ago, and since then we have seen **considerable changes in the fisheries and aquaculture sectors**, including:

- \* the **rapid increase in global aquaculture production**,
- \* which is, in turn, a response to the **rising demand for fish and fishery products**;
- \* an **growth in world trade of fish and fisheries products, particularly in value terms**; and,
- an **overwhelming call for more responsible management**, as global consciousness for the well-being of our natural resources within their ecosystems, **takes root in decision-making considerations**.

These and other key trends and associated issues have been traced in past editions of SOFIA and, once again, we are pleased to share with you an **update on our analyses and observations**.



World review

Selected issues

Highlights of special studies

Outlook

SOFIA 2010 consists of four major parts:

1. A World Review of Fisheries and Aquaculture
2. Selected Issues
3. Highlights of Special Studies, and
4. an Outlook section



## WORLD REVIEW

### Fish as food

115 million tonnes

Record 17 kg/capita

46% from aquaculture

15% of animal protein for  
3 billion people



In the **world review** we mention that **in 2008** capture fisheries and aquaculture supplied the world with **115 million tonnes of fish for human consumption, an all-time-high average of 17 kilos per capita**. This can vary from less than 1 kilo consumed to over 100 kilos, depending on the area.

In 2008, aquaculture contributed 46% of the fish consumed worldwide by the human population and it is **set to overtake capture fisheries as a source of food fish**.

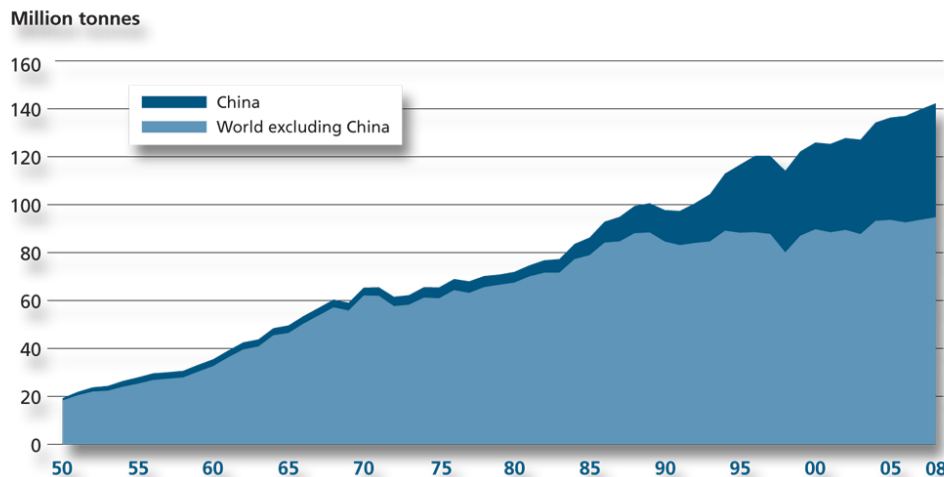
Overall, fish provides **at least 15% of the animal protein intake for over 3 billion people**, an especially important source for those in developing and low-income food-deficit countries.

It is foreseen that the global demand for fish will continue to increase – and given the state of capture fisheries – **future growth will have to come from aquaculture**.



## WORLD REVIEW

World capture fisheries and aquaculture production



World production of capture fisheries and aquaculture continues to rise, **driven by aquaculture production in China.**

Total production amounted to **over 142 million tonnes in 2008**, with provisional estimates at more than 145 million tonnes for 2009.



## WORLD REVIEW

### Global fisheries & aquaculture production

142.3 million tonnes total

Capture : 89.7 million tonnes

- ◆ marine: 79.5 million
- ◆ inland : 10.2 million

Aquaculture : 52.5 million tonnes



Of the 142 million tonnes produced in 2008, about **90 million tonnes came from capture fisheries.**

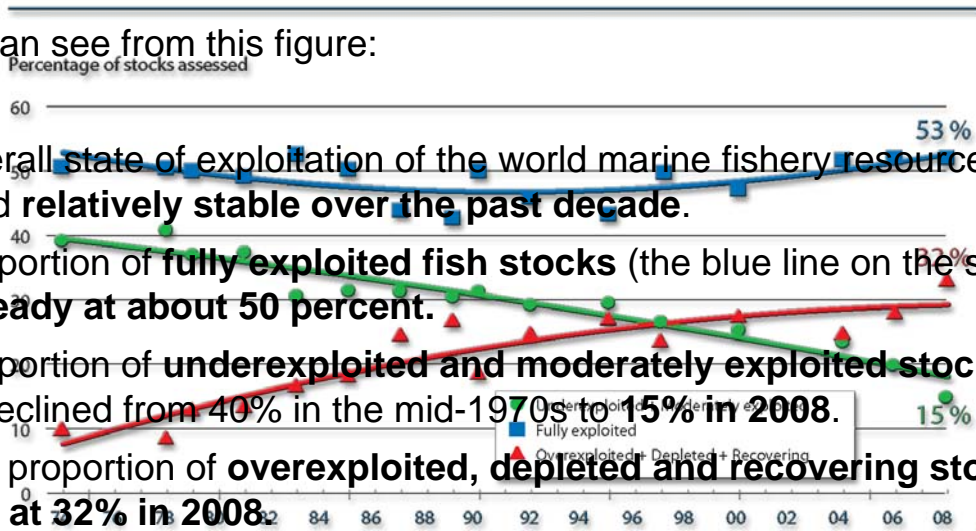
Marine capture fisheries contributed nearly 80 million tonnes.

Inland fisheries have shown an increasing trend in recent years and reported a record catch **exceeding 10 million tonnes.**

**For aquaculture**, production in both inland and marine waters has continued to increase, and **total production in 2008 reached about 53 million tonnes.**

At present, the **overall maximum potential from wild capture fisheries in the oceans has been reached**, and further benefits and the sustainability of fisheries can only be achieved through more cautious and effective fisheries management aimed at **maintaining fully exploited fishery resources and recovering those that are overexploited or depleted.**

Global trends in the state of world marine stocks since 1974



As you can see from this figure:

- The overall state of exploitation of the world marine fishery resources has remained **relatively stable over the past decade.**
- The proportion of **fully exploited fish stocks** (the blue line on the screen) holds **steady at about 50 percent.**
- The proportion of **underexploited and moderately exploited stocks** (in green) declined from 40% in the mid-1970s to **15% in 2008.**
- And the proportion of **overexploited, depleted and recovering stocks** (in red) was **at 32% in 2008.**



## WORLD REVIEW

### Inland fisheries

>10 million tonnes

Catch statistics poor

Resources vulnerable  
to habitat degradation

Precautionary approach vital



A review of **inland fish stocks** reveals that inland fisheries are a vital component in the livelihoods of people in many parts of the world, in both developing and developed countries.

In 2008, over 10 million tonnes were produced – -- **but these statistics remain among the least reliable and could be higher.** Due to the complex nature of inland fisheries, collecting accurate information is very difficult and can be costly.

Providing a global – or even regional – assessment remains an enormous challenge.

Inland fishery resources are **particularly vulnerable to habitat degradation due to the** multiple uses of and threats to inland water.

Appropriate precautionary management approaches must be applied.



## WORLD REVIEW

### Aquaculture

Fastest-growing food sector  
annual growth rate 6.6%

52.5 million tonnes in 2008,  
up from <1 million in 1950

Value US\$98.4 billion

China produces 62%



Aquaculture continues to be the **fastest-growing food sector**, maintaining a **growth rate of almost 7% per year**.

In 2008, **production totalled some 53 million tonnes, worth nearly 100 billion dollars**. This, in comparison to less than one million tonnes, in 1950.

**Generally**, the Asia-Pacific region accounted for **89 percent of production**, where China overwhelmingly dominates the sector, accounting for 62% of total production.

**Overall**, growth rates for aquaculture production are slowing, reflecting the impacts of a wide range of factors – including limitations to the availability of sites – and vary greatly among regions.



## WORLD REVIEW

### Fishers & fish farmers

Major growth in employment

Nearly 45 million –  
mostly small-scale

Including secondary sector –  
over half women

8% world's population depend  
on fisheries



During the last three decades the number of fishers and fish farmers has **grown faster than the world's population.**

**In 2008 some 45 million people worked directly as fishers and fish farmers,** the vast majority in developing countries.

Of these 86% are in Asia, with **China alone accounting for 13 million workers.**

Most fishers are small-scale artisanal fishers operating on coastal and inland fishery resources.

When we count the secondary sector such as handling and processing, **women make up half of those employed.**

All in all, **about 540 million people – or 8 percent of the world's population – depend on fisheries for their well-being and livelihoods.**

## WORLD REVIEW

### Fishing fleets

4.3 million fishing vessels

59% powered by engines

- 86% less than 12m
- <2% industrial



FAO estimates that there are some **4.3 million fishing vessels worldwide**.

Globally, this number has been relatively stable in recent years, however overall geographic distribution has varied over the years.

Nearly 60% of all vessels are powered by engines - three-quarters of which are in Asia.

**86% of motorized vessels are smaller than 12 m** and less than 2 percent are large industrialized fishing vessels.



## WORLD REVIEW

### Fish trade

Global trade worth  
US\$ 102 billion

39% exported

Developing countries account for  
55% world fish exports

China biggest exporter valued over  
US\$ 10 billion



There has been a **dramatic growth in international trade in value terms which reached a record 102 billion dollars in 2008, nearly doubling in ten years.**

Further strong growth is expected, despite slowed trading from the current **global economic crisis and food price volatility.**

Fish has become among the most highly traded food commodities with **nearly 40% of all production now exported** -- this has particularly benefited **developing countries who now account for 55% of world fish exports destined for human consumption.**

**China continues to be the world's largest fish exporter, with a staggering 10 billion US dollars in export value.**



## WORLD REVIEW

### Governance and policy

#### Small-scale fisheries

Key issue is reducing vulnerability

#### Trade and traceability

Respecting standards to access markets

#### Regional Fishery Bodies

Challenge is to strengthen performance



With respect to Governance and Policy, **sustainable management outcomes such as poverty reduction, improved food security, and stronger economic growth, depend on concurrent improvements in public governance.** Broadly speaking, there has been **only limited progress in the implementation of sound and responsible management measures in most of the world.**

**Small-scale fisheries**, which contribute more than half of the world's marine and inland fish catch, are immensely important to millions of people. However, despite their importance, small-scale fishing communities **often face precarious and vulnerable living and working conditions.**

**Traceability** is becoming increasingly common in the trade of fish and fish products but its implementation can be expensive and difficult, particularly for developing countries. **Maintaining access to markets and respecting standards** is a growing challenge for many countries.

**Strengthening the role and performance of regional fishery bodies** still remains the major challenge facing international fisheries governance.



## WORLD REVIEW

### Governance and policy

#### Dealing with IUU fishing

Agreement on Port State Measures

#### Bycatch and discards

Guidelines to manage bycatch and reduce discards

#### Aquaculture policy and governance

Responsible development to achieve sustainability

**Illegal, unreported and unregulated fishing** continues to threaten the long-term sustainable management of world fisheries. FAO is focusing considerable attention on IUU fishing and related activities. For instance, in 2009 it adopted the **Agreement on Port State Measure to Prevent, Deter and Eliminate IUU fishing** and is now looking at other developments such as an instrument of Flag State Performance.

Effective **management of bycatch and reduction of discards** in capture fisheries remains a concern. Calls for international action have resulted in a recent technical consultation to develop guidelines on bycatch management and discard reduction.

In the last two decades, **aquaculture** has recorded significant and **rapid growth** among the food-producing sectors and become a globally robust and vital industry. It is essential that aquaculture governance be developed responsibly to achieve sustainability.

**In SOFIA you will find an in-depth look at four selected issues:**

The State of World Fisheries and Aquaculture 2010



One issue explores how **biosecurity**, an integrated approach for managing the risks associated with conflicting uses of natural resources, **promotes systematic risk analyses and assessments in aquaculture.**

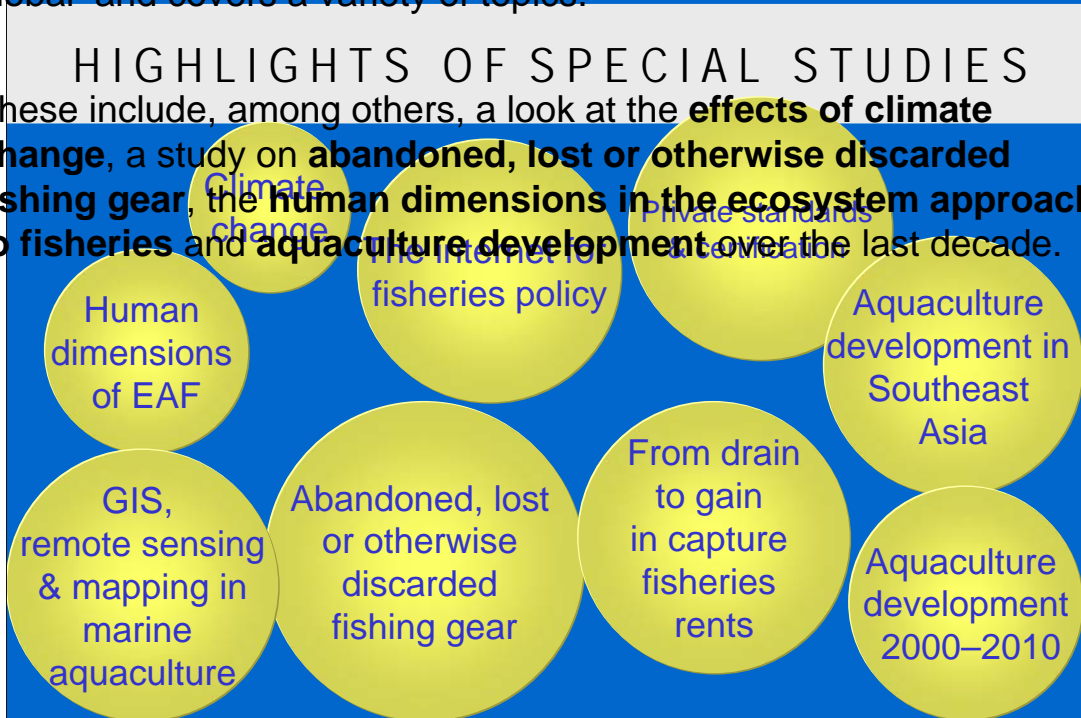
Risk management also extends to seafood consumption. To understand and prevent any harmful effects, **consumers require guidance on how to minimize risks while maximizing the benefits of eating fish.**

As previously mentioned, IUU fishing is recognized as a major threat to achieving sustainable fisheries. One issue examines how **trade measures are increasingly being used** to prevent IUU-sourced fish and fish products from entering international trade flows.

The proposed **Global Record of fishing vessels, refrigerated transport vessels and supply vessels** could provide an online database that provides vessel-related information to create the transparency needed to help stop IUU fishing.



Under the highlights of special studies section, SOFIA reports on nine studies which vary in geographical range from highly focussed to global and covers a variety of topics.



Our Outlook section peers into the future of inland fisheries.

## The State of World Fisheries and Aquaculture 2010



Although often undervalued, inland fisheries are a core component in the livelihoods of millions in both developing and developed countries.

## OUTLOOK

Some 61 million people are involved in the sector – **over half of them are women.**

### What future for inland fisheries?

Despite the fact that **2008 produced a reported record of over 10 million tonnes**, substantial declines in inland fishery resources have been caused by irresponsible practices and habitat degradation.

Vital to millions in developing and developed countries

Stocks declining, despite reported record production

Improved awareness and appropriate action are required in order to conserve aquatic ecosystems and **safeguard the resources that form the basis for inland fisheries.**

Action needed to conserve inland ecosystems

In summary, SOFIA reveals that there are **new horizons for fisheries and aquaculture in these challenging times.**

The State of World Fisheries and Aquaculture 2010



## NEW HORIZONS

The aquaculture production trend points to further growth at a lower percentage but **producing the same, or even more, increment in volume** in the future.

Key contribution of aquaculture

Global demand for fish **continues to rise as the world's population grows.** **Trade** in fish and fishery products **keeps breaking records.**

Opportunities for improved livelihoods and economic growth

There are **opportunities for improved livelihoods** and prospects for economic growth, but these must be developed alongside long-term resource conservation and effective management of aquaculture.

Need for responsible actions and responses

**This requires responsible actions and sustainable responses.**





شكراً!

谢谢!

Thank you!

Merci!

¡Gracias!

Спасибо

Thank you for your attention.