



# Global Conference on Aquaculture 2010

Farming the waters for People and Food

22-25 September 2010, Phuket, Thailand

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**Global Conference  
on  
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**Expert Panel Presentation V.4:  
Information and data needs –  
A strategy for improving  
aquaculture statistics**  
by  
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22–25 September 2010, Phuket, Thailand



## Greater need for aquaculture statistics and more to measure

- **Aquaculture development**
  - resource-based => knowledge-based
  - simple resource use => resource use management
  - more complex issues around aquaculture to deal with today
- **Aquaculture statistics is the knowledge base**
  - monitoring the sector
  - formulating sound policies and management strategies to guide aquaculture development in the future
- **Quantitative measurement**
  - existing statistics insufficient / inadequate
  - more to measure

## World level aquaculture data collection and dissemination

- **Data collection**
  - Collection of world aquaculture statistics is FAO's global mandate.
  - Aquaculture data are collected through questionnaires sent annually to over 230 countries and territories.
  - On average, about 150 countries and territories return to FAO with data of varying details, completeness, timeliness and consistency.
- **Data validation and processing**
  - Communication with data providers
  - FAO in-house data processing
  - Estimate for missing data using other information

## World aquaculture statistics available with FAO

- **Disseminated to public annually**
  1. Grow-out production **volume data** (live weight)
  2. Grow-out Production **value data** (in USD, at first sale)

Both data time series can be sorted by country, by species, by culture environment and by "fishing area"
- **Collected but not disseminated so far**
  1. Surface area used for aquaculture or volume of culture facilities by environment
  2. Production volume and value by species, by culture method and by culture environment
  3. Hatchery production by species by intended use

Why not disseminated?  
Received Data are poor in completeness and overall quality.

## Latest dataset release

- Released in March 2010
- Data series covers 68 years (1950 – 2008)
- As of 2008, aquaculture productions are recorded for 185 countries and territories with more than 300 species and hybrids, including:
  - \* some countries with historic data only, and
  - \* some non-reporting countries with estimated data

## Form of dissemination

### Traditional (printed):

1. FAO Fishery and Aquaculture Statistics Yearbook  
*(detailed data for ten most recent years)*
2. Status of World Fishery and Aquaculture (SOFIA)  
*(summarized data and analysis)*

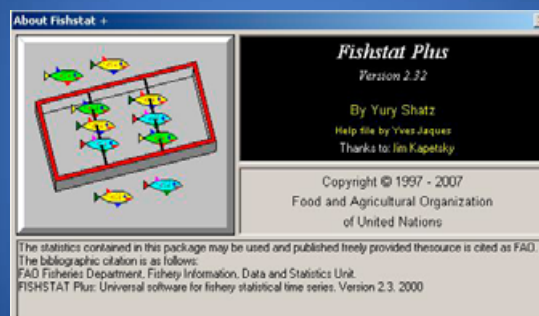
## Form of dissemination

### Information and communication technology assisted:

1. Internet based aquaculture data query panel
2. Aquaculture production quantity and value dataset  
+  
Dissemination software (*FishStat plus v.2.32*)  
(recommended for frequent and heavy use of data)

Data users helpdesk: [fish-statistics-inquiry@fao.org](mailto:fish-statistics-inquiry@fao.org)

## FishStat plus – the software for data dissemination



## Regional aquaculture data collection and sharing

- **Regional fisheries / aquaculture organizations**
  - ANAF
  - RECOFI (RAIS)
  - SARNISSA
  - SEAFDEC, and
  - SPC, etc
  - European Union (EuroStat)
  - RAA

## Recent progress in improving aquaculture statistics

- **Asia**
  - China:
    - 2<sup>nd</sup> agriculture census 2006/07 covered aquaculture.
    - Historic aquaculture data adjusted based on census result
    - Additional fund for capacity building including training of local level data collectors nation wide
  - India:
    - National agriculture census covers aquaculture
    - Aquaculture survey methodologies improved
  - Myanmar:
    - Better data accuracy achieved by disaggregating volume and value down to increased number of species since 2008.

## Recent progress in improving aquaculture statistics

- **Latin America**
  - Chile: National aquaculture census (2008/09)
  - Brazil: National aquaculture census (2008/09)
- **Europe**
  - EU: EU Council Regulation No 762/2008 legally defines the obligation of member states to submit aquaculture statistics to EuroStat

## However,

- Recent progress in improving aquaculture statistics are significant, but they are scattered and without harmonized efforts and strategy.
- Tremendous work to be done to further enhance the knowledge base on aquaculture in systematic manner on global scale.

## Strategy and Outline for Improving Information on Status and Trends of Aquaculture

### The Strategy

- Recently developed by FAO on advice by member states
- Elaborated within the framework of Code of Conduct for Responsible Fisheries (CCRF) and align with other international instruments
- Taking into account the process undertaken resulting in the Strategy for Improving Information on Status and Trends of Capture Fisheries
- Applies to the collection and dissemination of information on the status and trends of aquaculture
- Primarily for national policymaking, planning and management of aquaculture sector
- Globally established by existing obligations of states to report fisheries statistics to FAO under FAO Constitution
- proposes to significantly improve data collections and related research for the benefit of users at the national, regional and global levels
- include additional support from relevant international organizations and financial institutions for capacity building in developing countries



## The scope

- The Strategy is global in scope
- To cover all aquaculture production practices, for food and non-food uses, in fresh, brackish and marine waters including all commercial and small-scale aquaculture.
- The needs for information and statistics data in areas including social and economic aspects, impacts and utilization of natural resources, especially land and waters, and impacts and utilization of ecosystems and bio-diversities
- Addresses national capacity for collection, processing, analysis and dissemination of information, quality, completeness and scope of data and information, timeliness of information collection and dissemination, national and international institutional frameworks for coordination of data and information collection, and participation and transparency in the preparation of global status and trends reports

## Objectives

- To provide a framework
  - for improvement of knowledge and understanding of aquaculture status and trends as a basis for policy-making and management
  - to ensure development that is compatible with good stewardship of resources and the environment.
- To be implemented
  - through arrangements between states, directly or through their participation in regional fisheries organizations, and FAO.
  - arrangements established at various geographic scales and linked to form a global system under the auspices of FAO.
  - capacity of developing countries to be taken into account in implementing the Strategy.

## Guiding principles

- Sustainability of information/statistics systems
- Best scientific evidence
- Participation and cooperation
- Objectivity and transparency
- Timeliness
- Flexibility

## Required Actions

1. Capacity building in developing countries
2. Global methodologies and standards
3. Improving institutional mechanisms and procedures for statistics and status and trends reporting

## Capacity building in developing countries

- National level capacity building is critical fulfil national needs and existing reporting obligations, and to ensure that developing countries can fully participate in, and benefit from.
- Statistics collection incorporated as integral part of policy-making and management process
- Inter-agency communication and coordination to ensure social economic data on small scale aquaculture
- To develop and adopt statistics standards and systems compatible to FAO systems to enable regional and global data compilation

## Global methodologies and standards

- To address gaps and constraints in the data collected, in addition to evaluating what data should be collected according to national needs and priorities, data collection cost and national capacity.
- FAO and partners to develop harmonized standards, definitions and methodologies and software for the compilation, processing and analysis of aquaculture statistics
- To promote adoption and application by member countries

## **Improving institutional mechanisms and procedures for statistics and status and trends reporting**

- FAO to form an inter-regional Coordinating Working Party on Aquaculture Statistics to review requirements for aquaculture statistics, agree on standard concepts and definitions
- FAO to make proposals for the coordination of aquaculture statistical activities among relevant organizations under the international mechanism of Coordinating Working Party on Fisheries Statistics (CWP)
- States should agree on arrangements to facilitate the provision and exchange of information on aquaculture with FAO, and should monitor these systems to ensure their sustainability for meeting the needs of aquaculture policy-making and management.
- To develop CWP Handbook on Aquaculture Statistics

## **Activities already started**

- Asia-Pacific regional review on aquaculture statistics – Vietnam, 2009
- CWP Handbook on Aquaculture Statistics is being developed
- CWP Aquaculture Work Group meeting to be held in Phuket next week



Thank you