

AGENDA X
FISHERY AND AQUACULTURE
– ITS SIGNIFICANCE IN THE REGION

Importance of the Region in the World

- Producer of majority of global fish production:
 - 69 % of global fish food and 97 % of sea weeds and algae production
 - 60 % of marine production and 88 % of inland production
 - 56 % of capture production and 89 % of aquaculture production
- Food security:
 - Consume 68 % of global fish food supply
 - Almost exclusive consumption of sea weeds
 - Region represent 57 % of global population
- International trade:
 - 37 % of export; 31 % of import; both in value

Importance of fish in the Region

- For food, fish provide :
 - 24 % of animal proteins and 8 % of total proteins;
 - Bangladesh, Cambodia, Indonesia, Sri Lanka: over 50 % of animal proteins
 - Fiji, Japan, Korea, Lao, Malaysia, Myanmar, Philippines, Viet Nam: over 1/3 of animal proteins
 - This may be substantially under-estimated
- In international trade: :
 - Fish accounts 20-30 % of export and 15-25 % of import of food trade in value
 - Share decreasing, though amount of trade increasing during the last decade
 - Fish and fishery products earns USD 5.1 billion in 2009

Inland capture / aquaculture in the Region

- Water rich; regular seasonal floods; Limited land with high population; strong fish demands;
 - Most of water bodies are subject of stocking: large lake, reserve, backyard ponds, community water reserve, rice-fields
 - Rice-fields ; active stocking or small occasional harvest of aquatic animals
 - Regular flooded area ; rice-filed in dry season and fishing and farming area in wet season
 - Integrated agri-aqua farms are common
 - Communities without access to land - aquatic
- Climate change impacts – sea surface raise, intrusion of salinity waters; increase of extreme events (e.g. storms, floods)

Introductions & invasives

Aquaculture / stocking/ ornamental trade - move living organisms regularly and often without restrictions

- Rapid diseases spread to world: e.g. shrimp viruses, koi herpes virus
- Invasive species – serious impact on local ecosystems and aquaculture
- Many invasive species established local residence: e.g. Tilapia in Pacific

- > Increasing interest in controls and biosecurity
- > Need ecosystem-wise consideration on impacts

White shrimp



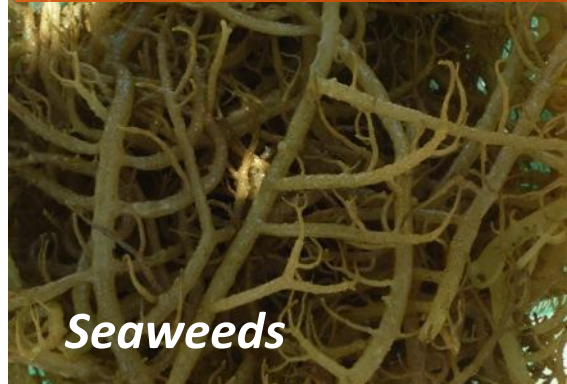
Tilapias



African catfish



Oyster spat, abalone



Seaweeds

Integration needs - Environmental impacts

- Competition in access to natural resources:
 - Access to land and water
 - Use of chemical
 - Poor regulatory framework and lack of zoning and planning
- Intervention with economic developments:
 - Pollution, loss of key ecosystems, mangrove removal
 - Prioritization among economic growth, food security and conservation of ecosystem services
 - Further pressure on competitions to land and water, increased regulations
- Need of integrated information
- No statistics, no policy attention = Need of representative statistics on small scale operations

Steps toward further integration

- Integrating fishery and aquaculture component into various surveys (e.g. ,agriculture, household, rural)
 - Aquaculture and fishery modules in agriculture census
 - Non-discriminatory treatment of fisheries and aquaculture in community based surveys
- Separation of engagement into fishery and aquaculture from overall agriculture
 - Recommendation at APCAS-23
 - Serve as frame information – subsistence and small scale operators
- Include FID in discussion and preparation of surveys

Integration to the Global Strategy and Censuses:

Actions required differ according to components:

- Marine offshore / Large aqua-farms:
 - Data rich with administrative control (operational and natural resource) – No action need
- Coastal / Inshore:
 - Fishing villages – scattering, not easy access; limited agriculture activities; landing mainly for markets
 - > Simple Population / Household survey to establish a master frame
- Inland capture / aquaculture:
 - Often part of rural broad activities; scattering as individual level; often products not go to market
 - > Integrated community based survey

Steps for technical integration

- Enhanced use of remote sensing
 - Inclusion water body into land-use survey with remote sensing technology
- Share IT tools
- Practical guideline for data integration
 - Design regular sampling and data collection procedure based on outcome of census / surveys
 - Cost-effective, well integrated, easy to maintain



Improvement of statistics - Classifications

□ CPC

- Substantial modifications proposed to separate aquaculture and capture fishery products – basically accepted
- CPC stays as overarching commodity classification

□ HS

- Substantial changes in HS 2012 – increased details on small pelagics, fresh water fish, and aquatic invertebrates
- Proposal for modification 2017 – enhancement of ornamental products

Improvement of statistics – Standards and concepts

- Aquaculture data requirement
 - New requirement – input / output table along SEEA fish resource account table
 - New aquaculture module for WCA 2020 need to develop
 - Pacific region agreed core set for aquaculture monitoring including e.g. Pacific agree core)
- Water indicators for inland capture and aquaculture
 - Availability, usage, and benefits obtained through usage
 - Country profiles for selected countries – review and feedbacks
 - Case study of usability of SEEA – next step
- Sustainable management of ecosystems
 - Decadal review of climate extreme - UN World Meteorological Commission – end of 2012
 - Environmental indicators, ecosystem accounts – on-going
 - Bio-security related data collection

Improvement of statistics – IT Tools / dissemination

- FI Statistical Yearbook
 - Available in down-loadable CD-ROM:
ftp://ftp.fao.org/FI/CDrom/CD_yearbook_2010/index.htm
 - Detailed Food Balance Sheet and Fleet statistics incorporated in regular dissemination
 - Data also available in on-line query and FishStatJ – dedicated standalone data handling application with data files
<http://www.fao.org/fishery/statistics/software/fishstatj/en>
 - Data Warehouse – all statistics disseminated from FAO to be available in consolidated way
- National Aquaculture Sector Overview (NASO) map collection :
www.fao.org/fishery/naso-maps
 - Inventory in Excel form - generate a link to Google maps the location of farm sites and their characteristics
- Fishing Vessels Finders: <http://www.fao.org/figis/vrmf/finder/> (credential “public”, “browser”)
 - Integrated database of individual fishing vessel records publicly disseminated by Regional Bodies, IGO, and NGOs



**THANKS FOR YOUR
ATTENTION**