



**STATE OF WORLD
FISHERIES
AND
FUTURE SUSTAINABILITY ISSUES**



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GLOBAL CHALLENGES, GLOBAL SOLUTIONS

THE GLOBAL NATURE OF CHALLENGES TO
ACHIEVING LONG-TERM SUSTAINABILITY
OF FISHERIES AND AQUACULTURE
REQUIRES -

GLOBAL SOLUTIONS

GLOBAL CHALLENGES, GLOBAL SOLUTIONS

GLOBAL SOLUTIONS –

- ADAPTABLE TO REGIONAL, LOCAL CONDITIONS
- INCLUSIVE IN CHARACTER
- IDENTIFIED IN INTERNATIONAL INSTRUMENTS
- ACTION THROUGH INSTITUTIONS

GLOBAL CHALLENGES, GLOBAL SOLUTIONS

I WILL DISCUSS, ON A GLOBAL LEVEL,

- THE STATE OF WORLD FISHERIES
 - NEW INFORMATION
 - CURRENT DEVELOPMENTS
- FUTURE SUSTAINABILITY ISSUES
- POSSIBLE SOLUTIONS

GLOBAL CHALLENGES, GLOBAL SOLUTIONS

AREAS OF CONCERN:

- STATUS OF RESOURCES, IMPROVED INFORMATION FOR CAPTURE FISHERIES
- PRODUCTION, CONSUMPTION, TRADE
- INTERNATIONAL FISHERY INSTRUMENTS
- FLEET CAPACITY, IUU FISHING, SUBSIDIES
- INTERNATIONAL FISHERIES GOVERNANCE
- FOOD SECURITY, FISHWORKERS LIVELIHOOD

STATUS OF RESOURCES

- THE GLOBAL POTENTIAL FOR MARINE CAPTURE FISHERIES HAS BEEN REACHED
- 1974 – 2003:
 - CONSISTENT DOWNWARD TREND IN PROPORTIONS OF STOCKS OFFERING POTENTIAL FOR EXPANSION
 - INCREASING TREND IN THE PROPORTION OF OVEREXPLOITED AND DEPLETED STOCKS

STATUS OF RESOURCES

ESTIMATES, STOCKS MONITORED IN 2003:

25 % UNDEREXPLOITED
 MODERATELY EXPLOITED

50% FULLY EXPLOITED

25% OVEREXPLOITED
 DEPLETED

STATUS OF RESOURCES

ECOSYSTEM-RELATED ISSUES:

- LONG-TERM CHANGE IN CATCH COMPOSITION
- INLAND FISHERY RESOURCES UNDER THREAT

STATUS OF RESOURCES

MANAGEMENT MEASURES NEEDED:

- LOWER LEVELS OF FISHING EFFORT FOR WILD RESOURCES
- SUPPLEMENTARY MEASURES FOR RECOVERY OF MARINE FISHERIES

IMPROVED INFORMATION FOR CAPTURE FISHERIES

- FAO STRATEGY FOR IMPROVING INFORMATION ON STATUS AND TRENDS OF CAPTURE FISHERIES
- ADOPTED BY FAO COMMITTEE ON FISHERIES (COFI), 2003
- ELABORATED WITHIN FRAMEWORK OF CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

FISH PRODUCTION

POPULATION INCREASING MORE QUICKLY THAN
TOTAL FOOD FISH SUPPLY (OUTSIDE CHINA)

2002 GLOBAL FOOD FISH PRODUCTION:

- 101 MILLION TONNES
- MARINE CAPTURE: STABLE
- INLAND CAPTURE: SLIGHT OSCILLATIONS

2003 GLOBAL CAPTURE PRODUCTION
DECREASED (PRELIMINARY ESTIMATE)

FISH PRODUCTION

2002 TOP TEN CAPTURE FISHERY PRODUCING COUNTRIES (MARINE, INLAND):

- 60 PERCENT OF GLOBAL TOTAL
- SAME COUNTRIES, 1992-2002
- CHINA AND PERU TOP TWO, 2001-2002

TOP TEN PRODUCING COUNTRIES (INLAND):

- 66 PERCENT OF GLOBAL TOTAL
- NO DEVELOPED COUNTRY
- 90 PER CENT IN ASIA, AFRICA

FISH PRODUCTION

2002 GLOBAL AQUACULTURE PRODUCTION:

- 6 PERCENT HIGHER THAN 2000
- 51 MILLION TONNES
- 71 PERCENT FROM CHINA
- 90 PERCENT FROM DEVELOPING COUNTRIES

- KEY OBJECTIVE: SHIFT TO SUSTAINABLE AQUACULTURE PRACTICES

FISH CONSUMPTION

- 1992 - 2002: WORLDWIDE AVERAGE PER CAPITA CONSUMPTION INCREASED 21 PERCENT
- WORLD FISH SUPPLY STABLE SINCE EARLY 1990S, OFFSET BY GROWTH IN AQUACULTURE
- 2002 FOOD FISH SUPPLY:
 - 61 PERCENT CAPTURE FISHERIES
 - 39 PERCENT AQUACULTURE

FISH TRADE

VOLUME OF FISH TRADED:

- STAGNANT IN RECENT YEARS
- STRONG INCREASES UNLIKELY

IMPORTS, 2002:

- RECORD US\$61 BILLION
- DEVELOPED COUNTRIES – 82 PERCENT OF VALUE
- JAPAN MAIN IMPORTER

FISH TRADE

EXPORTS, 2002:

- CHINA MAIN EXPORTER, \$4.5 BILLION
- LOW INCOME FOOD DEFICIT COUNTRIES – OVER 20 PERCENT OF TOTAL VALUE

FISH TRADE

MAJOR ISSUES:

- SHIFT FROM DEVELOPED-COUNTRY PROCESSING
- CHANGES IN QUALITY, SAFETY CONTROL IN MAIN IMPORTING COUNTRIES
- LABELLING, TRACEABILITY
- CHEMICAL RESIDUES IN AQUACULTURE
- PUBLIC CONCERN ABOUT OVEREXPLOITATION

FISH TRADE

MAJOR ISSUES:

- SUSTAINABILITY OF AQUACULTURE
- IUU FISHING
- WTO INTERNATIONAL TRADE NEGOTIATIONS
- EXPANSION OF REGIONAL TRADE AREAS
- INCREASING BILATERAL TRADE AGREEMENTS

AQUACULTURE TRADE

MAJOR ISSUES:

- UNCONTROLLED MOVEMENT OF GOODS, AQUACULTURE PRODUCTS, LIVE AQUATIC ANIMALS
- INTEGRATED ANIMAL HEALTH PROGRAMMES
- POTENTIAL IMPACTS OF GENETICALLY MODIFIED AQUATIC ORGANISMS
- USE OF ECONOMIC INCENTIVES
- ECOLABELLING

INTERNATIONAL FISHERY INSTRUMENTS

BROAD AND EFFECTIVE IMPLEMENTATION OF
POST-UNCED INSTRUMENTS NEEDED

BLUEPRINTS FOR RESPONSIBLE FISHERIES

- 1995 FAO CODE OF CONDUCT
- 2002 WSSD-POI

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT:

OVERARCHES FISHERIES SECTOR ACTIVITIES IN
A COMPREHENSIVE, INTEGRATED MANNER

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT FRAMEWORK:

- GENERAL PRINCIPLES
- FISHERY MANAGEMENT
- FISHING OPERATIONS
- AQUACULTURE DEVELOPMENT
- INTEGRATION OF FISHERIES INTO COASTAL AREA MANAGEMENT
- POST-HARVEST PRACTICES AND TRADE
- FISHERIES RESEARCH

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT:

- FLAGSHIP INSTRUMENT
- FAO COMMITTED TO FOSTER FULL AND EFFECTIVE IMPLEMENTATION

INTERNATIONAL FISHERY INSTRUMENTS

WSSD-POI:

- HIGH PROMINANCE FOR FISHERIES ISSUES
- DIFFICULT TO LOCATE FISHERIES ISSUES NOT ADDRESSED BY CODE
- MANY FISHERIES PROVISIONS REFLECT IPOA COMMITMENTS

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT AND WSSD-POI AIM TO:

- REDUCE FLEET CAPACITY
- REBUILD FISH STOCKS
- COMBAT IUU FISHING
- MINIMIZE IMPACT OF FISHING ON BIODIVERSITY, THE ENVIRONMENT

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT AND WSSD-POI FORESEE:

- BROAD STAKEHOLDER PARTICIPATION
- TRANSPARENCY
- INSTITUTIONAL STRENGTHENING
- IMPLEMENTATION OF PRECAUTIONARY,
ECOSYSTEM APPROACHES

INTERNATIONAL FISHERY INSTRUMENTS

CODE OF CONDUCT AND WSSD-POI SYMMETRY:

- THROUGH FACILITATING IMPLEMENTATION OF CODE, FAO ACTIVELY PROMOTES IMPLEMENTATION OF WSSD-POI AND OTHER POST-UNCED FISHERIES INSTRUMENTS

INTERNATIONAL FISHERY INSTRUMENTS

WSSD-POI TIMEFRAMES:

- 2004: IPOA-IUU, GLOBAL MARINE ASSESSMENT
- 2005: IPOA-CAPACITY
- 2010: ECOSYSTEM APPROACH, BIOLOGICAL DIVERSITY
- 2012: NETWORKS OF MPAS
- 2015: HUNGER, RESTORE STOCKS TO MSY

INTERNATIONAL FISHERY INSTRUMENTS

CODE IMPLEMENTATION:

- IUU FISHING –
 - EFFECTIVE ACTION BY STATES, RFBS
- FLEET CAPACITY MANAGEMENT –
 - CAPACITY REDUCED IN SOME FISHERIES,
 - DECREASE IN NUMBER, CONSTRUCTION OF LARGE VESSELS
 - BUT EXPANSION OF PARTICULAR FLEET
 - CAPACITY EXPANSION FOR SMALL INDUSTRIALIZED VESSELS

INTERNATIONAL FISHERY INSTRUMENTS

CODE IMPLEMENTATION:

- GLOBAL MARINE ASSESSMENT
 - ONGOING ESTABLISHMENT PROCESS
 - ACTIVE COLLABORATION OF FAO

INTERNATIONAL FISHERY INSTRUMENTS

CODE IMPLEMENTATION:

- REDUCTION OF BIODIVERSITY THROUGH EAF
 - REDUCTION OF BYCATCH, DISCARDS
 - PROTECTION OF ENDANGERED SPECIES
 - ACTIVITIES WITH CITES
 - LEAD COUNTRIES, RFBS ARE IMPLEMENTING BUT SLOWLY
 - LIMITED PROGRESS, INTEGRATED COASTAL MANAGEMENT

INTERNATIONAL FISHERY INSTRUMENTS

CODE IMPLEMENTATION:

- MAINTAIN, RESTORE STOCKS TO MSY LEVELS BY 2015
 - IMPROVING INTERNATIONAL GOVERNANCE
 - INCREASING INTERNATIONAL COMMITMENT TO ADDRESS OVERFISHING
 - GROWING SOCIAL PRESSURE FOR SUSTAINABLE FISHERIES
 - TECHNOLOGICAL DEVELOPMENTS

FLEET CAPACITY, IUU FISHING, SUBSIDIES

LINKAGES: FLEET CAPACITY, IUU FISHING, SUBSIDIES

- FAO TECHNICAL CONSULTATION TO REVIEW PROGRESS AND PROMOTE THE FULL IMPLEMENTATION OF THE IPOA-IUU AND THE IPOA-CAPACITY
- FAO TECHNICAL CONSULTATION ON THE USE OF SUBSIDIES IN THE FISHERIES SECTOR

FLEET CAPACITY, IUU FISHING, SUBSIDIES

IUU FISHING:

- UNDERMINES SUSTAINABLE MANAGEMENT
- KEY CAUSES
 - OVERCAPACITY OF FISHING FLEETS
 - “FLAG OF CONVENIENCE” VESSELS
- DISTORTS COMPETITION, PENALIZES LEGAL FISHERS
- NOT ISOLATED PROBLEM

FLEET CAPACITY, IUU FISHING, SUBSIDIES

LINKAGE: OVERFISHING RESULTING FROM
OVERCAPACITY LEADING TO IUU FISHING

IMPEDIMENT: LACK OF COMPLETE DATA ON
STATE OF IUU FISHING, CAPACITY

FLEET CAPACITY, IUU FISHING, SUBSIDIES

TRENDS IN GLOBAL FISHING FLEET INDICATED:

- SIZE STABILIZED SINCE 1992, BUT INCREASED TECHNOLOGICAL EFFICIENCY
- DECREASE IN CONSTRUCTION OF NEW SHIPS OVER 100 GRT
- INCREASE IN NUMBER OF OLDER VESSELS
- EXCESS FLEET CAPACITY LIKELY TO REMAIN MOBILE
- INCREASE IN SMALLER INDUSTRIAL FISHING VESSELS IN EEZS

FLEET CAPACITY, IUU FISHING, SUBSIDIES

FAO TECHNICAL CONSULTATION ON IPOA-IUU,
IPOA-CAPACITY CONSIDERED:

- RECENT EXPANSION OF SUPER PURSE SEINE FLEET IN WESTERN AND CENTRAL PACIFIC
 - POTENTIAL IMPACT OF TECHNOLOGICAL INNOVATIONS
 - ENCOURAGED BY INTERNATIONAL BUSINESS ENTITIES
 - MANY VESSELS FLAGGED IN OPEN REGISTERS
- ACTIONS WERE RECOMMENDED

FLEET CAPACITY, IUU FISHING, SUBSIDIES

SUBSIDIES:

- NEGATIVE IMPACT WHERE CONTRARY TO RESOURCE, ECONOMIC CONSIDERATIONS
- EFFECTS OF SUBSIDIES VARY
- POSITIVE IMPACT POSSIBLE, E.G., WHERE SUSTAINABLE FISHERIES MANAGEMENT SUPPORTED

FLEET CAPACITY, IUU FISHING, SUBSIDIES

SUBSIDIES, NOT YET DETERMINED:

- EFFECT OF SUBSIDIES ON FLEET CAPACITY
- LINKAGE BETWEEN FLEET CAPACITY, IUU FISHING AND SUBSIDIES

FLEET CAPACITY, IUU FISHING, SUBSIDIES

SUBSIDIES:

- WSSD-POI CALLS FOR ELIMINATION OF SUBSIDIES THAT CONTRIBUTE TO OVERCAPACITY AND IUU FISHING
- FAO – WORK IN PROGRESS IN LINE WITH WSSD-POI

INTERNATIONAL FISHERIES GOVERNANCE

- STRENGTHENED GOVERNANCE VITAL
- RFBS PIVOTAL
- CLEAR SHIFT IN ROLE OF RFBS SINCE POST-UNCED FISHERIES INSTRUMENTS
- STATURE OF RFBS INCREASING

INTERNATIONAL FISHERIES GOVERNANCE

CONTRIBUTIONS BY RFBS:

- DEVELOPMENT OF NATIONAL CAPACITY
- DATA COLLECTION, HANDLING, DISSEMINATION
- ADDRESSING NEW ISSUES
- ADOPTING MANAGEMENT MEASURES
- ADOPTING RULES FOR BOARDING, INSPECTION, ENFORCEMENT
- IMPLEMENTING INTERNATIONAL INSTRUMENTS

INTERNATIONAL FISHERIES GOVERNANCE

CONTRIBUTIONS BY RFBS:

- REVIEW, AMEND CONVENTION
- INNOVATIVE, COOPERATIVE APPROACHES TO IMPLEMENT POST-UNCED INSTRUMENTS
- EFFORTS TO REBUILD DEPLETED STOCKS, PREVENT FURTHER DECLINE, COMBAT IUU FISHING

HOWEVER, OUTLOOK BLEAK IF IUU FISHING
PREVENTS RFBS FROM FULFILLING MANDATES

INTERNATIONAL FISHERIES GOVERNANCE

- RFBS STRENGTHENED ROLE ACCOMPANIED BY NEED FOR EFFECTIVE DECISIONMAKING
- EFFECTIVENESS OF GOVERNANCE DEPENDS ON MEMBERS

FOOD SECURITY FISHWORKERS LIVELIHOOD

CODE OF CONDUCT: IMPORTANCE OF FISHERIES
MANAGEMENT IN PROMOTING FOOD SECURITY

- FOOD SECURITY PROBLEMS LIKELY TO REMAIN
- AQUACULTURE CAN ADDRESS SOME PROBLEMS

FOOD SECURITY FISHWORKERS LIVELIHOOD

APPROACHES TO HOW FISH MAY PROVIDE FOOD SECURITY:

- IMPACT OF INTERNATIONAL TRADE ON FOOD SECURITY
- CONTRIBUTION OF SMALL-SCALE FISHERIES TO FOOD SECURITY

FOOD SECURITY FISHWORKERS LIVELIHOOD

IMPACT OF INTERNATIONAL TRADE ON FOOD SECURITY:

- DIRECT IMPACT – PROVIDING FISH AS FOOD
- INDIRECT IMPACT – SOURCE OF LIVELIHOOD

FOOD SECURITY FISHWORKERS LIVELIHOOD

CONTRIBUTION OF SMALL-SCALE FISHERIES TO FOOD SECURITY:

- CURRENT POLICIES DO NOT ALWAYS
RECOGNIZE CONTRIBUTION
- TECHNICAL GUIDELINES ON SMALL-SCALE
FISHERIES TO ADDRESS THIS
- KEY ISSUES IDENTIFIED

FOOD SECURITY FISHWORKERS LIVELIHOOD

CONTRIBUTION OF SMALL-SCALE FISHERIES TO
FOOD SECURITY:

KEY ISSUES:

- PRODUCTIVE CAPACITY DOES NOT ENSURE FOOD SECURITY
- EFFECTS OF FISH TRADE ON THE PRICE OF FISH IS KEY FACTOR AFFECTING NUTRITION

FOOD SECURITY FISHWORKERS LIVELIHOOD

CONTRIBUTION OF FISHERIES TO LIVELIHOODS:

- 2001-2002 - MARGINAL EMPLOYMENT INCREASE
 - CAPTURE FISHERIES: STAGNATING
 - AQUACULTURE: INCREASED OPPORTUNITIES, BUT LEVELLING OFF IN MANY COUNTRIES
- FISHWORKERS RIGHTS, LIVELIHOODS
 - CODE OF CONDUCT: STATES TO PROTECT RIGHTS OF FISHERS, FISHWORKERS

CONCLUSION

- SOCIETY MUST ADDRESS NEW CHALLENGES TO ENSURE SUSTAINABILITY
- RESOURCE BASE, ECOSYSTEM TRANSFORMED
- GLOBAL ENERGIES INTENSIFIED SINCE 1992
- CHALLENGE: IMPLEMENTATION OF INTERNATIONAL FISHERIES INSTRUMENTS

CONCLUSION

- DESPITE CHALLENGES, POSITIVE TRENDS TOWARDS SUSTAINABILITY ARE EMERGING
- STAKEHOLDERS TO CONTINUE CONCERTED ACTION TO ENSURE:
 - IMPLEMENTATION OF INSTRUMENTS
 - GAPS, CONSTRAINTS UNDERSTOOD
 - STRONG PROGRESS TOWARDS STRENGTHENING REGIONAL FISHERIES GOVERNANCE
 - CONTINUOUS EFFORTS TO MEET FUTURE CHALLENGES TO SUSTAINABILITY



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