



UNIVERSITY of STRATHCLYDE
CENTRE FOR
ENVIRONMENTAL LAW
AND GOVERNANCE



Mainstreaming Biodiversity & Ecosystem Services into the Fisheries Sector for Poverty Alleviation

Prof Elisa Morgera & Dr. Daniela Diz

Strathclyde Centre for Environmental Law and Governance:

www.strath.ac.uk/scelg

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Mainstreaming Biodiversity into the SDGs

CBD Decision XIII/3 (2016)



Sustainable Development Goals

The image displays a grid of 17 Sustainable Development Goals (SDGs) icons. A central white box is overlaid on the grid, containing the following text:

COP13
COPMOP8
COPMOP2
CANCUN,
MEXICO 2016

MAINSTREAMING BIODIVERSITY FOR WELL-BEING
CONVENTION ON BIOLOGICAL DIVERSITY

The SDG icons are arranged in a 4x5 grid (with the last row containing 2 icons):

- 1 NO POVERTY (Red)
- 2 ZERO HUNGER (Yellow)
- 3 GOOD HEALTH AND WELL-BEING (Green)
- 4 QUALITY EDUCATION (Red)
- 5 GENDER EQUALITY (Red)
- 6 CLEAN WATER AND SANITATION (Blue)
- 11 SUSTAINABLE CITIES AND COMMUNITIES (Orange)
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION (Brown)
- 13 CLIMATE ACTION (Green)
- 14 LIFE BELOW WATER (Blue)
- 15 LIFE ON LAND (Green)
- 16 PEACE, JUSTICE AND STRONG INSTITUTIONS (Blue)
- 17 PARTNERSHIPS FOR THE GOALS (Dark Blue)

Aichi Biodiversity Targets



TARGET 6

All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches



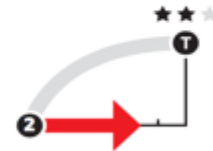
Great regional variation; positive for some countries but data limited for many developing countries

Recovery plans and measures are in place for all depleted species



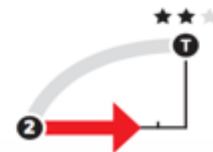
Variable; progress in some regions

Fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems



Some progress e.g. on long-lining used in tuna fisheries, but practices still impacting vulnerable ecosystems

The impacts of fisheries on stocks, species and ecosystems are within safe ecological limits, i.e. overfishing avoided



Overexploitation remains an issue globally, but with regional variation



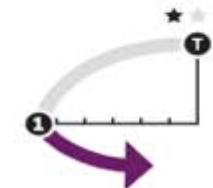
TARGET 14

Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded ...



High variation across ecosystems and services. Ecosystems particularly important for services, e.g. wetlands and coral reefs, still in decline

... taking into account the needs of women, indigenous and local communities, and the poor and vulnerable



Poor communities and women especially impacted by continuing loss of ecosystem services

SDG 14.4

- By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and **implement science-based management plans**, in order to restore fish stocks in the shortest time feasible, **at least** to levels that can produce maximum sustainable yield as determined by their biological characteristics



Ecosystem Approach (to Fisheries)

CBD Decision VII/11

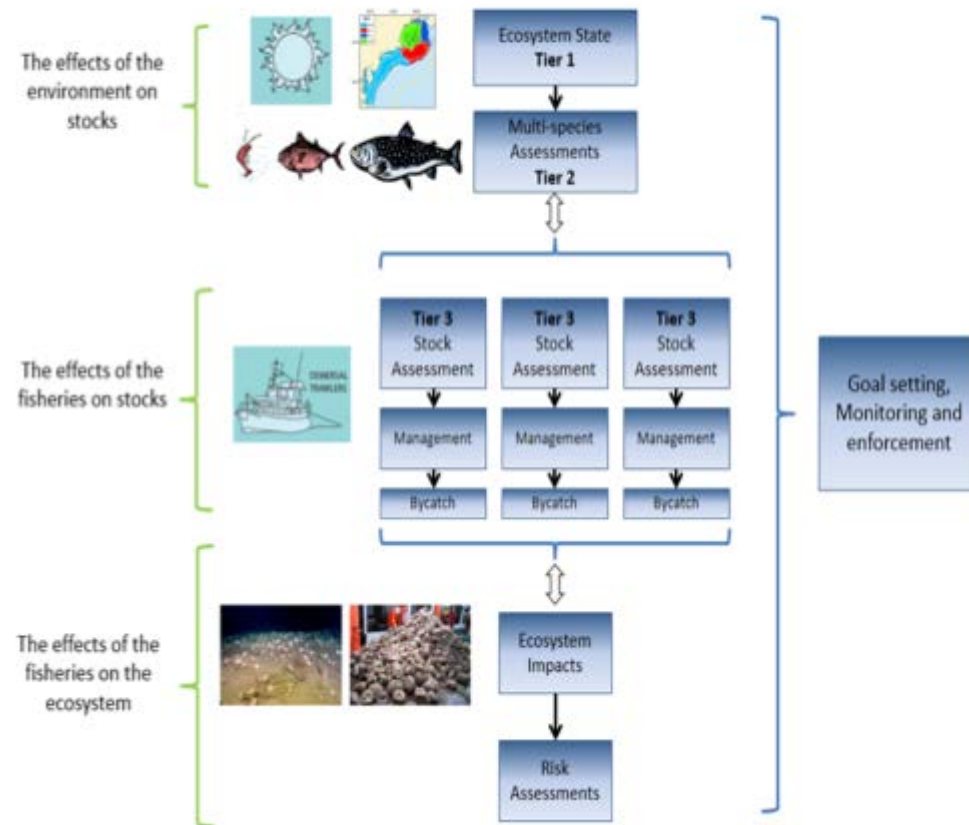
FAO Ecosystem Approach to Fisheries Technical Guidelines

SDG 14.2.1

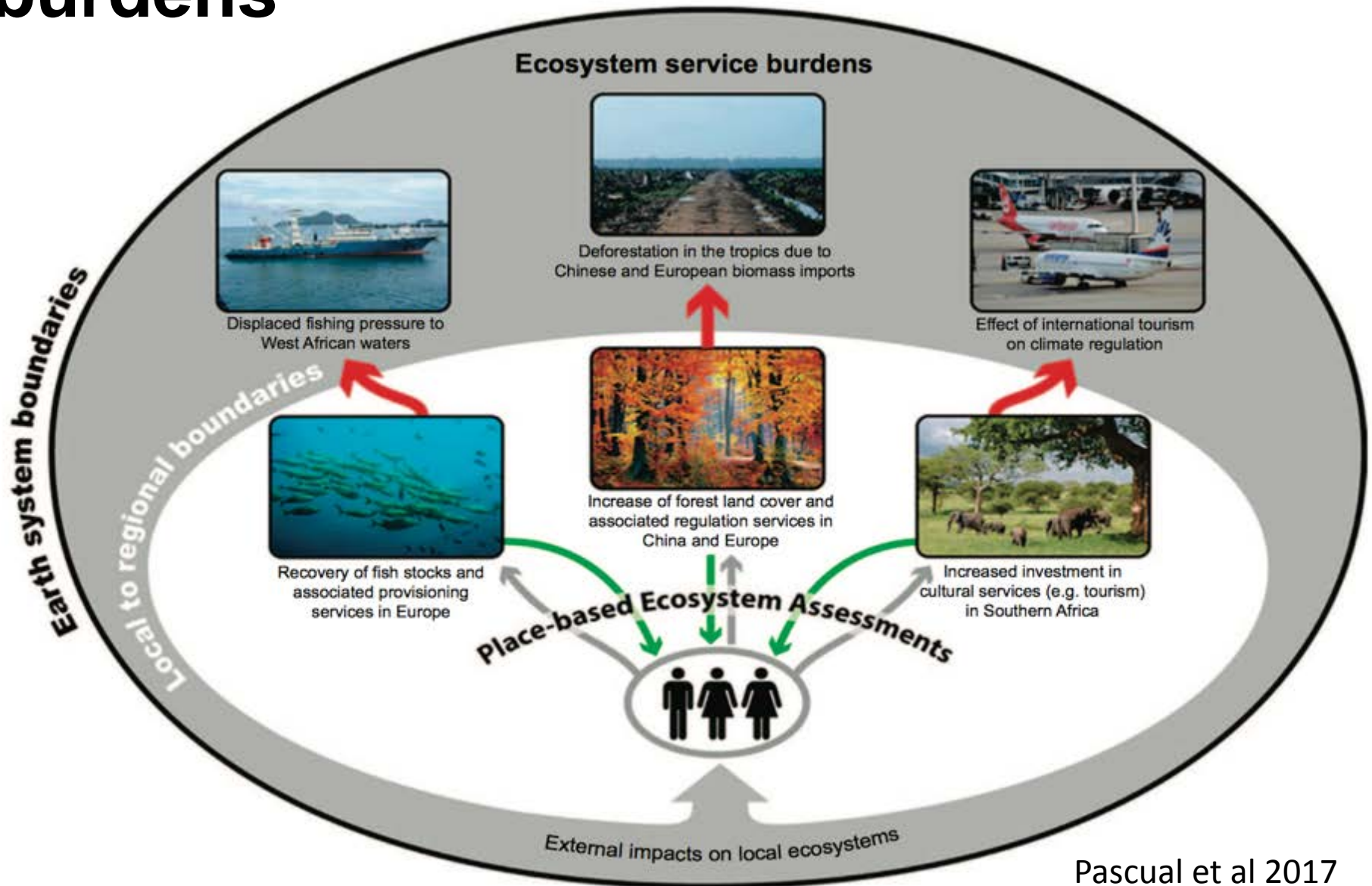


- **Biogeography** and ecosystem pressures
- **Conservation** of ecosystems to maintain or restore **ES**
- **Integrated management**
- Understanding **trade-offs** for informed **societal choice**

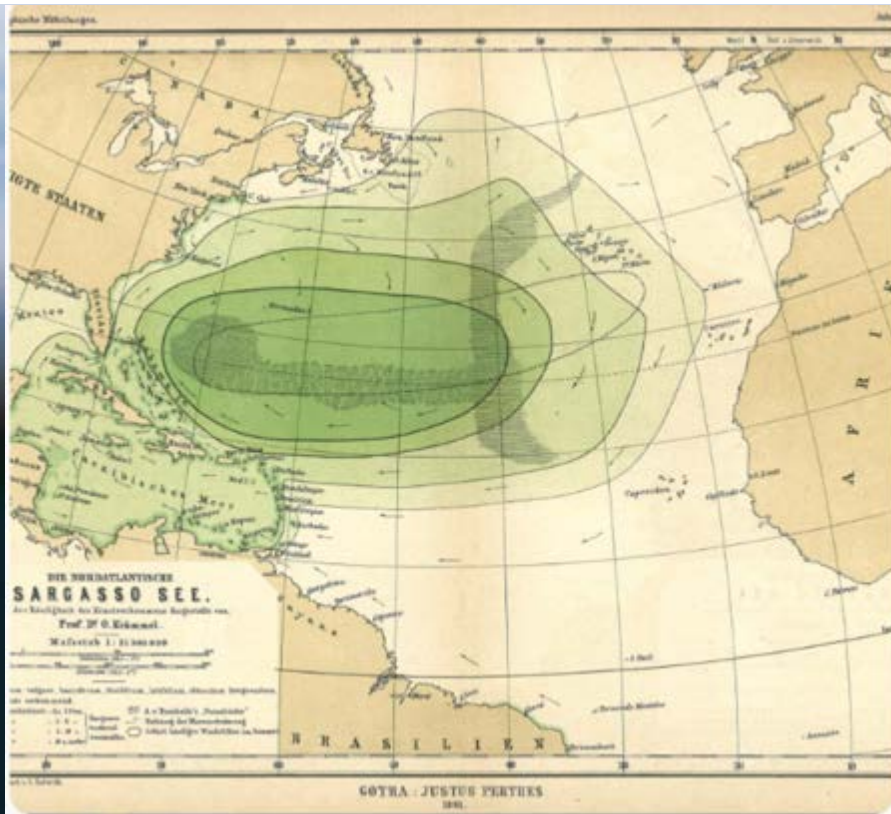
“Ecosystem Approach to Fisheries Management”



Off-stage ecosystem service burdens



Multi-scalar ES benefits and trade offs across scales

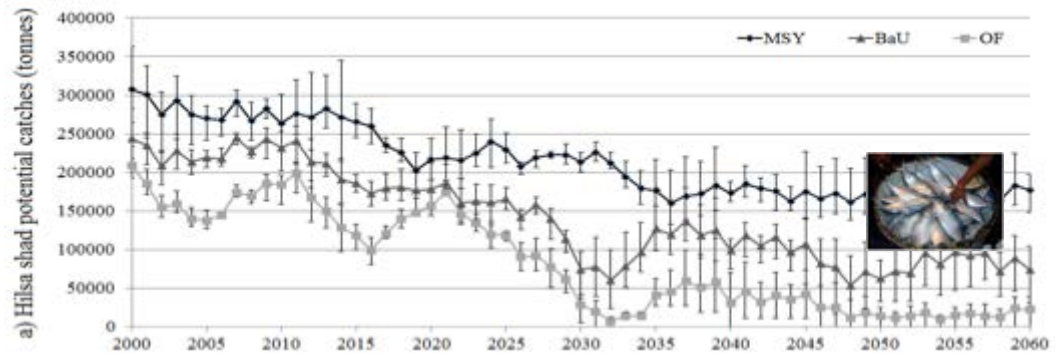
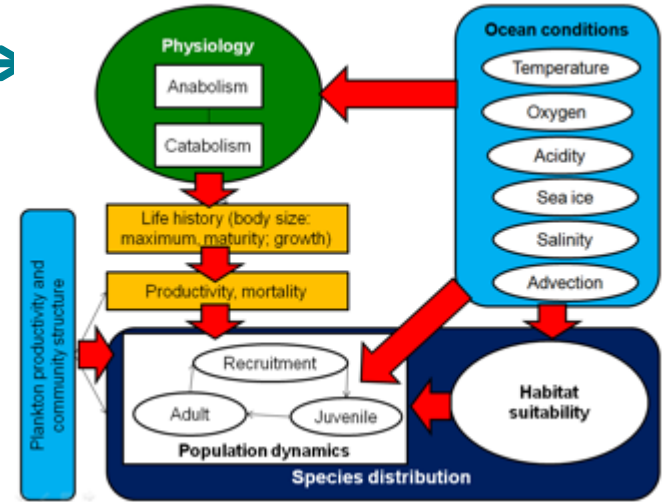


Intra-state Assessments: fisheries projections

Socio-economic scenarios



Climate scenarios



Biogeochemical modeling

Intra-state Assessments



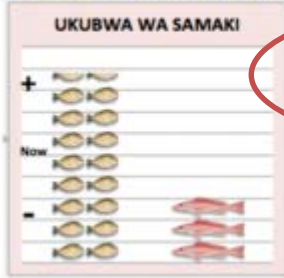
Trade off



Illegal gear
More employment

More fish catch
Small 'trash fish'

Low earnings



Lower effort

Healthier ecosystem

Less total catch
More valuable fish

profits



... the poorest stakeholder (women traders) rely on high volumes of cheap fish...

VISION

By 2050, **biodiversity** is valued, conserved, restored and wisely used, maintaining **ecosystem services**, sustaining a healthy planet and delivering benefits essential for all people.

Ecosystem Approach

CBD Decision VII/11

FAO Code of Conduct for Responsible Fisheries

FAO Ecosystem Approach to Fisheries Technical Guidelines

FAO Small Scale Fisheries Guidelines

UNGA Resolutions

UN Fish Stocks Agreement

**Ecosystem
Services**



**Impact
Assessment**

Human rights and
biodiversity
(J Knox, 2017)
Human right to food
(De Schutter, 2012)

- CBD SEA/EIA Guidelines
- CBD Akwé: Kon Guidelines
- FAO Deep-Sea Fisheries Guidelines
- Human Rights Impact Assessments
- UN Fish Stocks Agreement
- UNCLOS
- CBD

