Food and Agriculture Organization of the United Nations

FAO role and experiences in spatial data analysis supporting fisheries

Praia, Cape Verde
3 - 5 November 2015

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Role of FAO in geoinformation for fisheries

- Methodologies, technical guidelines and technical papers
- —**Geo-referenced data and information systems**
- —Field projects and training
- —**Metadata**
- —Scientific surveys
- —**Standards and guidelines**

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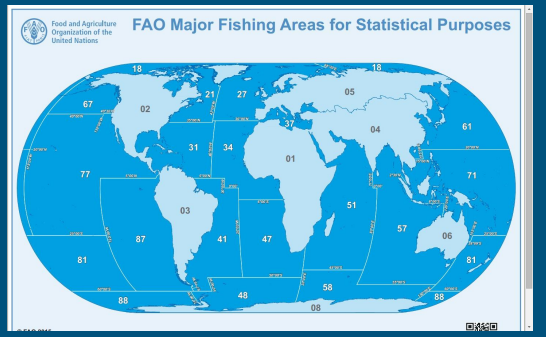
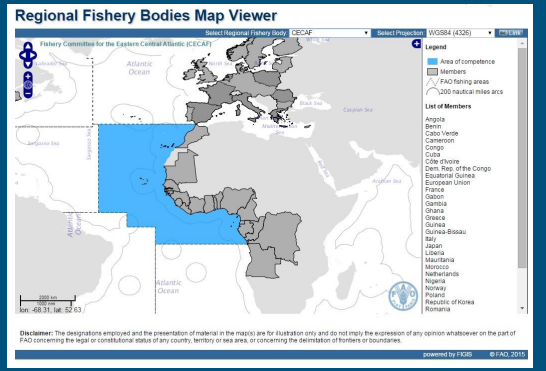
Data - Maritime boundaries

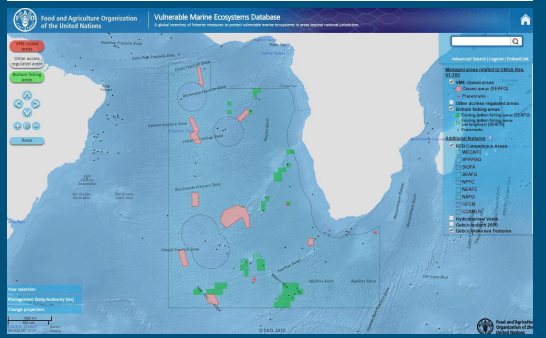
FAO Statistical areas

Regional Fisheries Bodies Competence areas

Vulnerable Marine Ecosystems management areas







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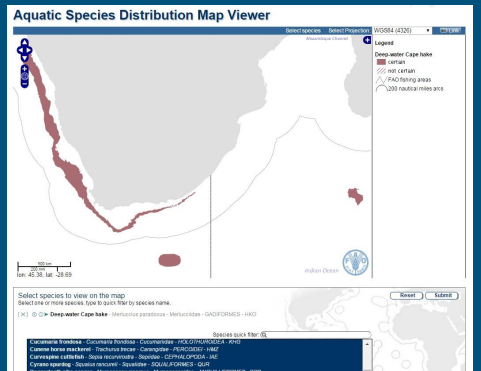
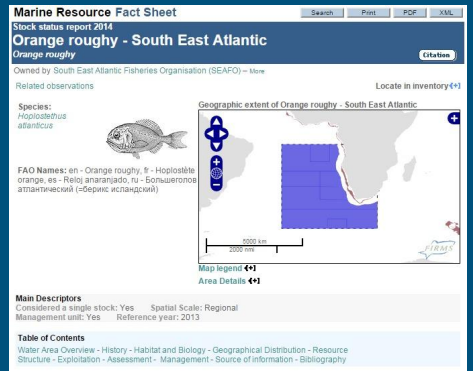
Data - Information systems

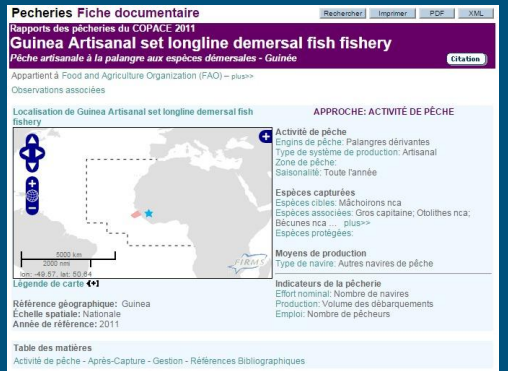
Biotics: Aquatic fisheries resources distribution

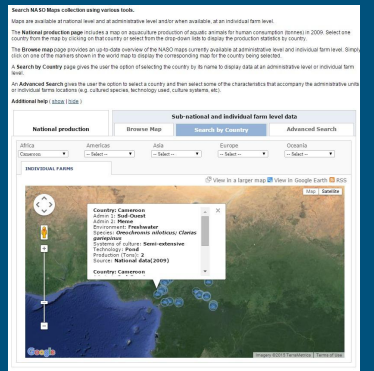
Fisheries and resources status: FIRMS stock inventory

Production: NASO Inventory









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Metadata and standards

OGC standards, INSPIRE and ISO 19115

Ontology - GEMS

FAO GeoNetwork (www.fao.org/geonetwork)

GeoServer

CERTIFIED OGC® COMPLIANT

Fisheries Linked Open Data

HARMONIZATION AND INTERLINKING OF FISHERY REFERENCE TERMINOLOGIES

FLOD

INSPIRE

Infrastructure for Spatial Information in the European Community

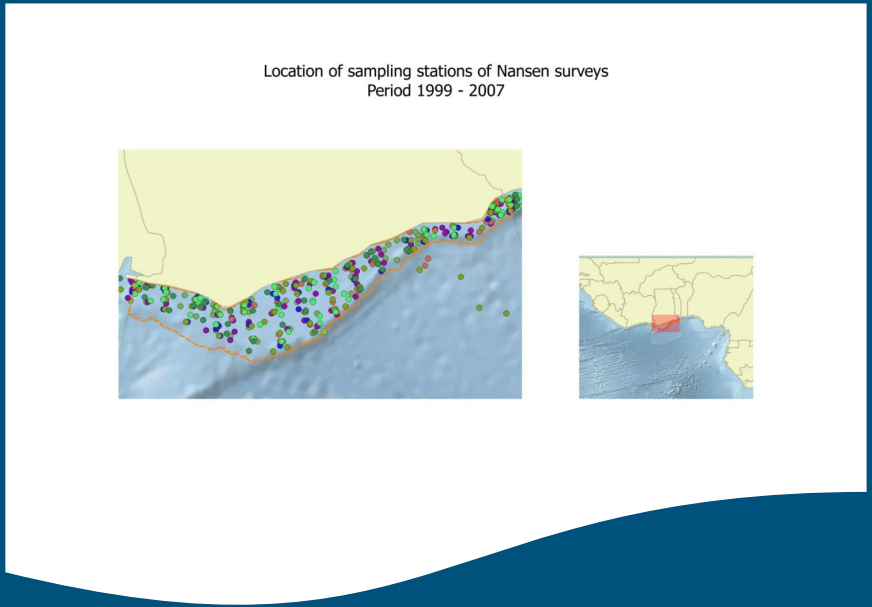
GEMS - GIS Enforcing Metadata & Semantic

Data analysis - The R/V Frj. Nansen surveys

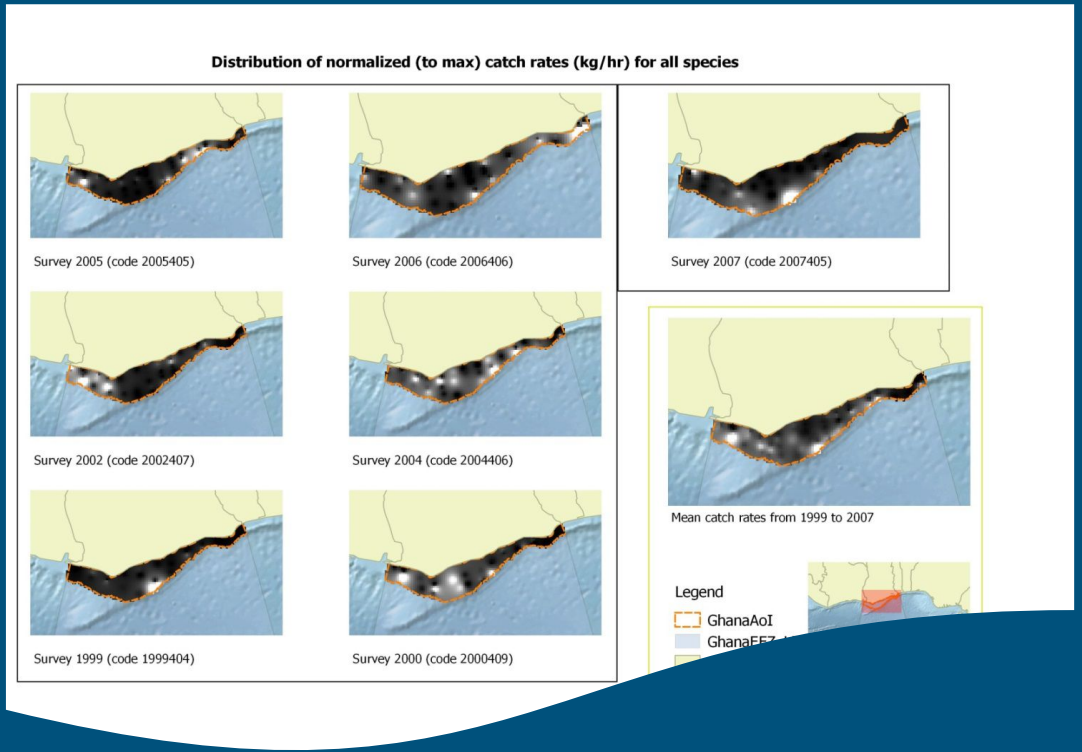
Biomass estimates

Biomass change rates

Juveniles occurrences



A set of surveys within the EEZ of Ghana



Changes of normalized total biomass across years (IDW interpolation)

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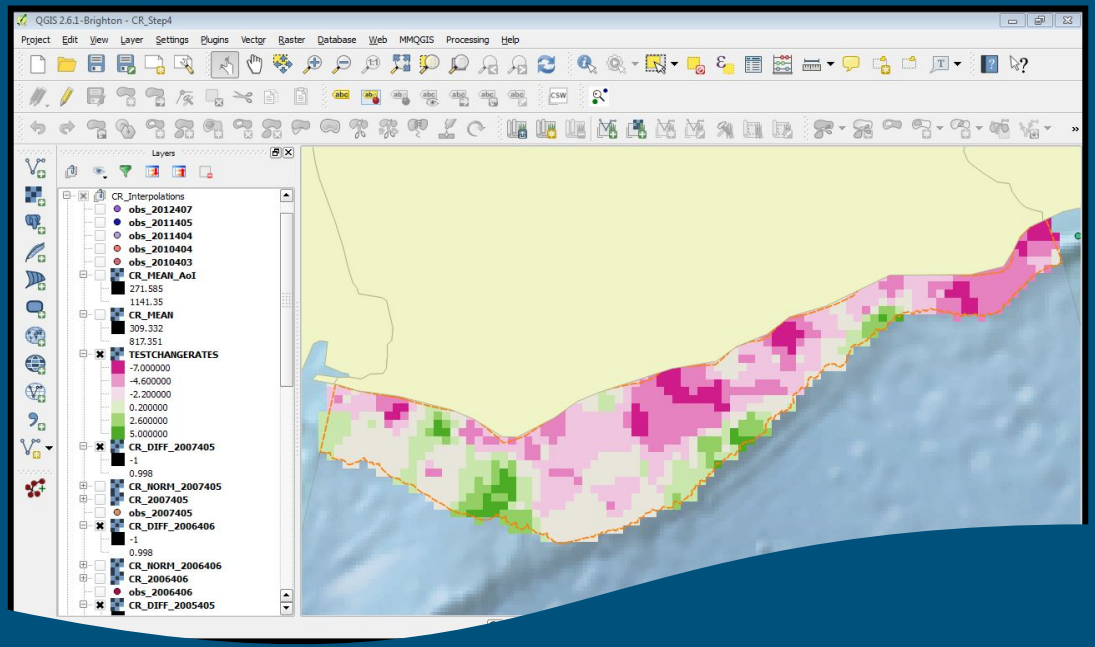


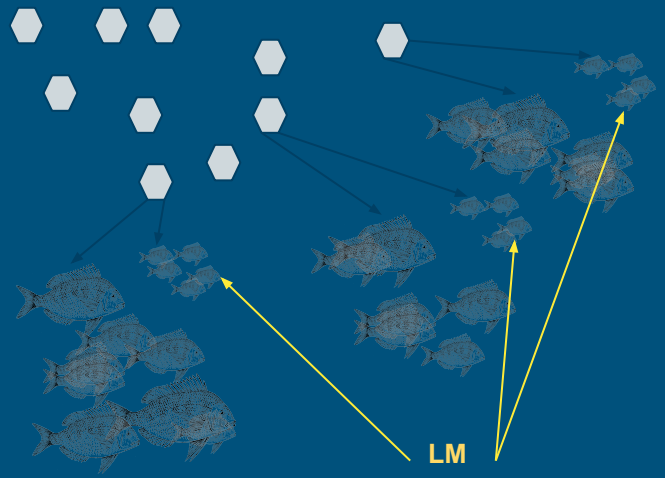
The measure of changes in total biomass (persistent change rates (above/below means); low change rates)

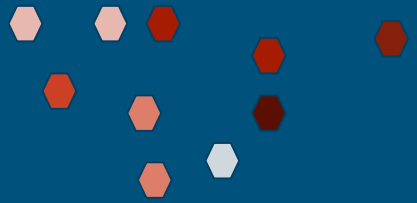
Juvenile ratio

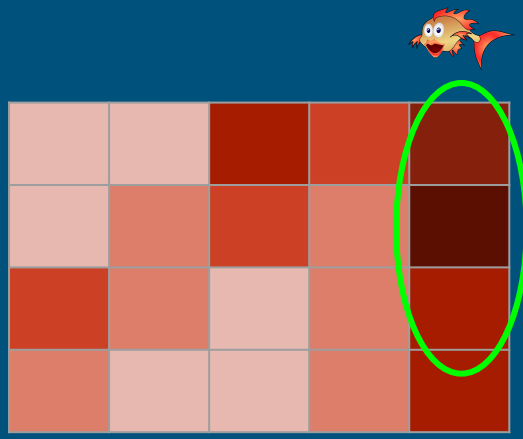
Understanding the presence, abundance, distribution and seasonal shifts of juveniles

Identifying those areas might help focusing management measures

Juvenile ratio







Limits

For some species/areas, Nansis reports too few stations with L/F and only for some species

In general, the survey were not designed for identification of nursery areas

Seasonal variability are not well recorded across the surveys

The L/F may not accurately reflect the composition of the sampling

No analysis can be done for species caught as large single individuals

LM values amy not be accurate

What to expect from this workshop?

How to apply technology to enhance access to geo-data?

How FAO can contribute?

How to support the sustainable use of sea resources?

How to improve co-operation among countries and sector?

How to recognize the role of each UN Agencies operating in the area?

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Thank you

Juvenile ratio

Reclassification of the length frequency @ station where length/frequency for selected species is available

Length at maturity, Lm, from literature (i.e. FIshBase)

The length frequency measures for each station and for each species are reclassified according to the individuals above and below the Lm over the total number of individuals measured in the sample

This number can be used as a probability of presence of nursery areas over the AoI