

Fisheries and Aquaculture sectors and national climate change planning in the region, David Brown and Cassandra De Young

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Asia Pacific
Fisheries
Commission

Contents

- Why fisheries and aquaculture are important in the region
- Lessons from analysis of National Adaptation Plans of Action (NAPA)
- Some action FAO and partners are taking in the Region



Importance of Fisheries and Aquaculture to our food supply

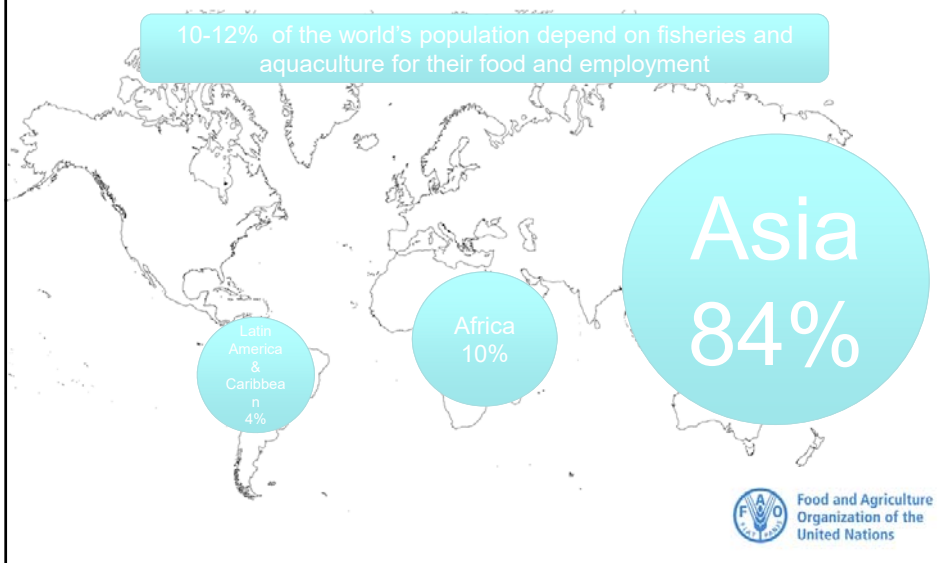
In a world where more than 800 million continue to suffer from chronic malnourishment and where the global population is expected to grow by another 2 billion to reach 9.6 billion people by 2050 – with a concentration in coastal urban areas – we must meet the huge challenge of feeding our planet while safeguarding its natural resources for future generations.

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Importance of Fisheries and Aquaculture: livelihoods – employment

10-12% of the world's population depend on fisheries and aquaculture for their food and employment



Importance to trade :

Fish is among the world's most traded food commodities

Worth almost US\$130 billion (2012)

Developing economies account for **54%** of total fishery exports by value



Developed economies account for **46%** of total fishery exports by value

Importance to food and nutrition

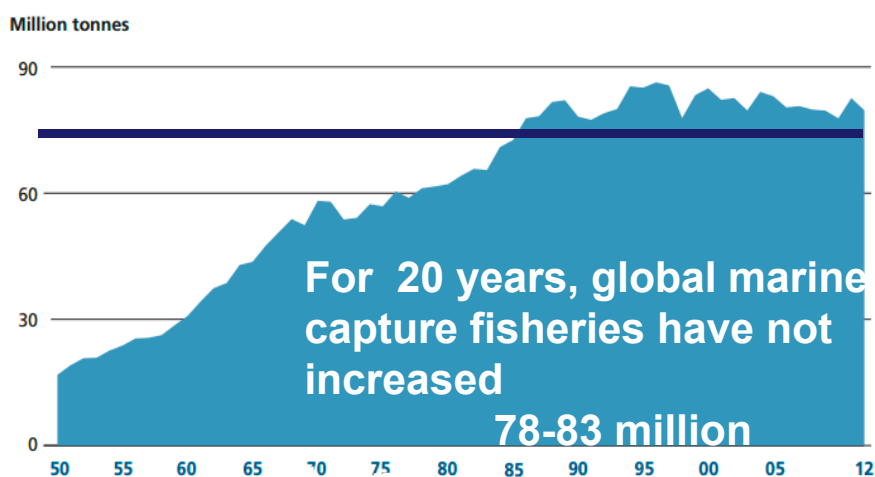
- The amount of fish that people are eating continues to rise and averages > 19 kg/capita per year in 2012.
- Significantly more in some countries in Asia Pacific (Myanmar, Cambodia,)
- Fish makes up 17% of the global population's intake of animal protein
- Also provides essential nutrients, vitamins, and omega 3 fatty acids.

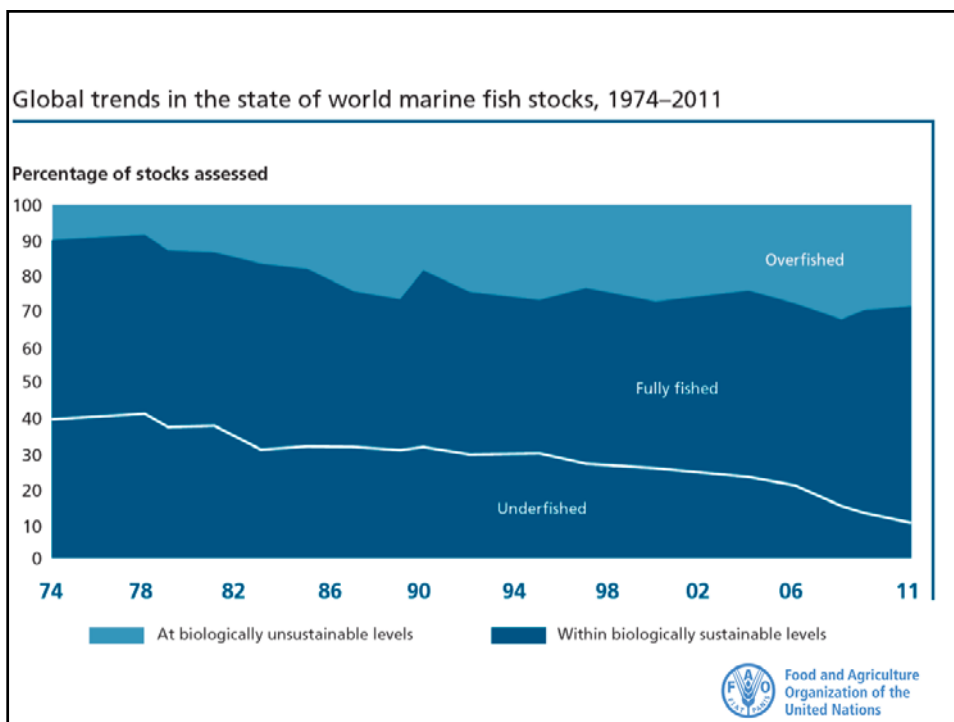
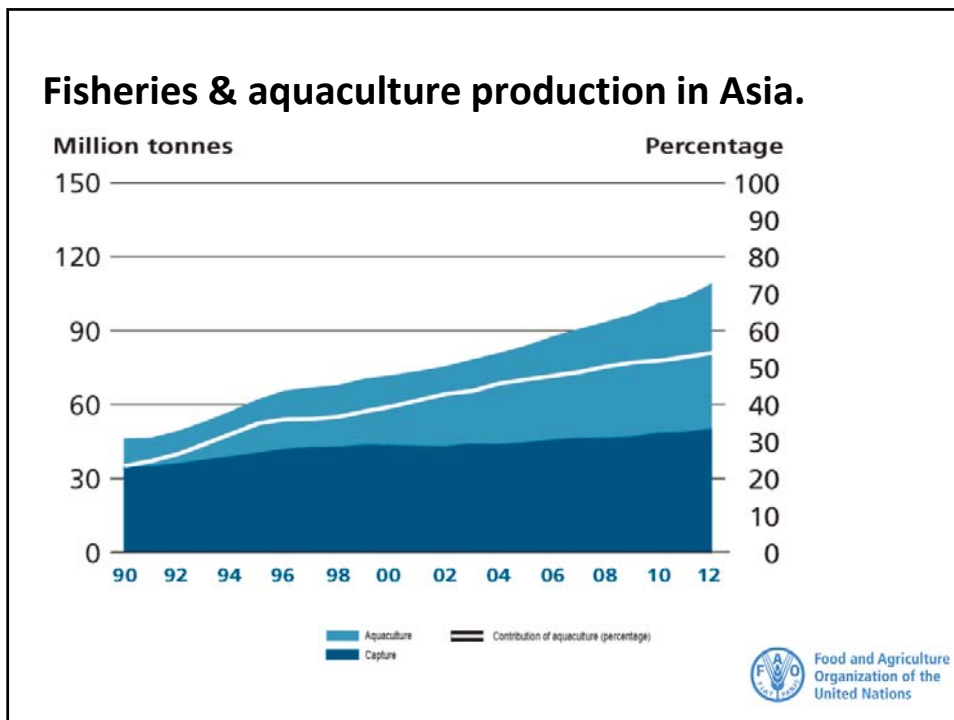
Important role of women and small scale fisheries in the region

- In the region women play a key roles in the sector.
- Small scale fisheries and those who depend on the sector for livelihoods.
 - SSF guidelines developed and implementation underway



State of World Fisheries





What are some of the main threats in the region ?

Fisheries (Marine and inland) :

Overexploitation and overfishing , IUU fishing Environmental degradation , Pollution, Increased competition for resources, Small scale fisheries, tenure and rights Post harvest losses, Market access, Rights, labour, decent work , Weak management. etc

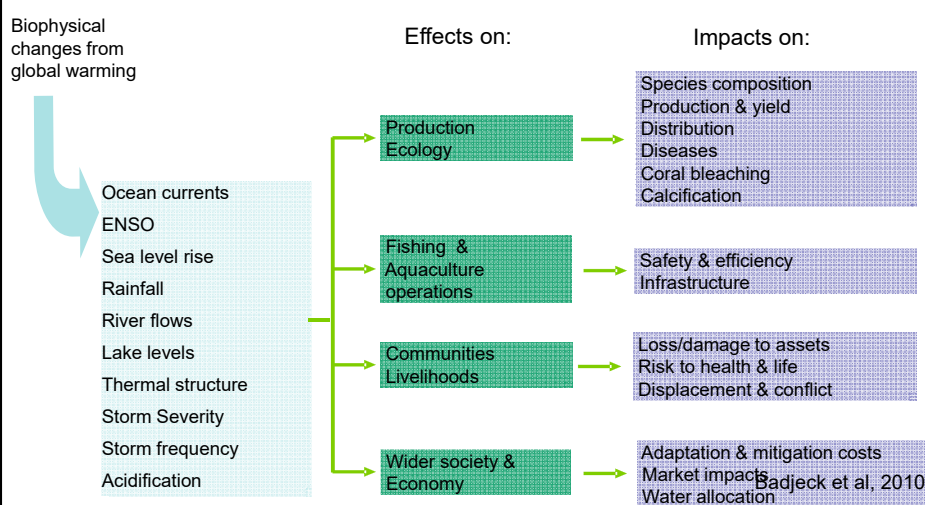
Aquaculture (Marine, Brackish, Freshwater)

Inputs – quality, Fishmeal supply, Certification, Disease, Market access, Rights, labour, decent work etc

- **Climate change and Disasters** (resilience)



CC impacts on fisheries and aquaculture already here



APFIC region APFIC Regional Consultative Workshop on Climate Change (Kathmandhu, Nepal, 24-26 May 2011)

- Region has a huge dependence on aquatic ecosystems
- fisheries and aquaculture sector , food security, trade and employment
- Climate stress is here:
- Climate change will cause unprecedented disruptions to aquatic and coastal systems
- Negative impacts expected on:
 - In the short term, non-climate-related drivers have larger impacts
 - Current poor practices in fisheries and ecosystem management
 - Ability to make specific predictions on fisheries sector remains limited
 - Flexibility in management systems and institutions is necessary as no prescriptive advice can be expected



Many regional partners

- SEAFDEC/ASEAN (SPA2)
- NACA
- MRC/Mekong
- RFMO's/RPOA/RFB's
- SPC/FFA/SPREP
- LME's
- Many others



Analysis of NAPA's, lessons for future planning including : NC, NAP's NAPA's NDC

Vadacchino, L.; De Young, C.; Brown, D. The fisheries and aquaculture sector in national adaptation programmes of action: importance, vulnerabilities and priorities. . FAO Fisheries and Aquaculture Circular. No. 1064. Rome, FAO. 2011. 60 pp.



What are the NAPA's

- National plans of action (short to medium term).
National priorities and nationally led.
- Build on national communications UNFCCC
- Generally led by Environment
- Help identification of priority projects for all sectors
- LDCF fund fro implementing priorities (through the GEF) and with support from the LEG/ fund
- 49 LDCF eligible countries have submitted

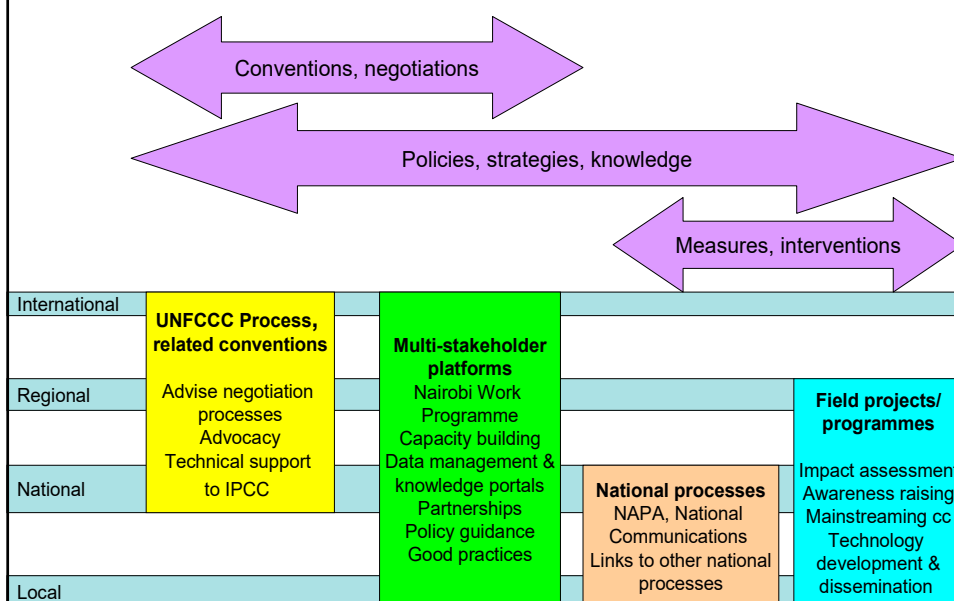


FAO and NAPAs

- FAO is the UN specialised technical agency for Agriculture (includes Agriculture but also Fisheries and aquaculture, Forestry)
- GEF implementing agency
- Support TA, CD through
 - Country and regional offices
 - Priority countries (LDC)
 - New Results based management as part of reform (Climate change results)
 - UNDAF (FAO-CPF)
 - Support alignment to sector policies



Context of FAO role in CC planning (also relevant for NC, NAP's NAPA's NDC....)



The Analysis of NAPAs

- To inform planning an analysis for the sector was carried out to understand engagement of the sector (2011)
- Examined importance of Fisheries and aquaculture in NAPAs in order to :
 - Better understand priorities for the sector
 - Better plan and integrate within FAO, with partners and with governments including use of cross sectoral approaches
 - Identify gaps
 - Used existing documentation (2011)
- Lessons applicable to future national planning for CC (:NC, NAP's NAPA's NDC)

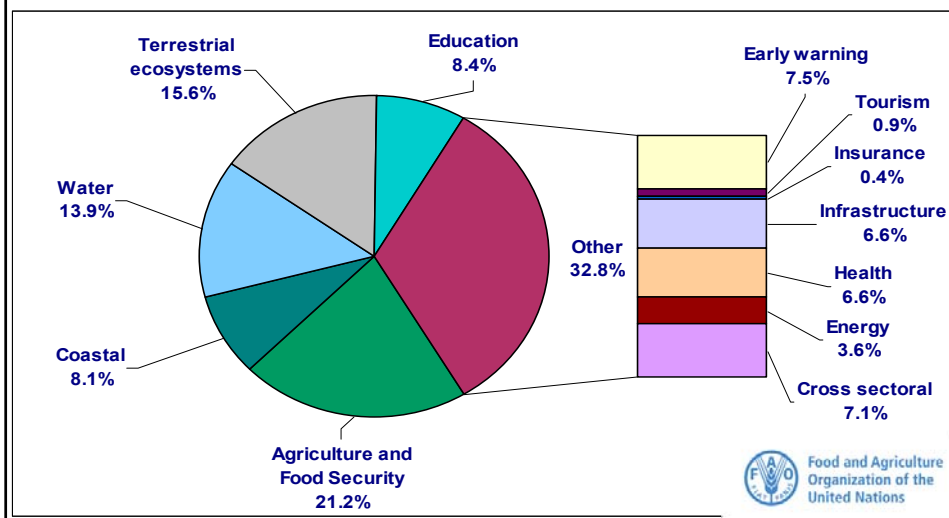


What did we look at ?

- Is the sector “important” to the country (i.e. is the country dependent on the sector in some way) ?
- What are the climate change impacts expected to impact the sector ?
- Broader vulnerability of the country/communities ; and
- What adaptation strategies are proposed in NAPAs and elsewhere to address the sector's vulnerability?



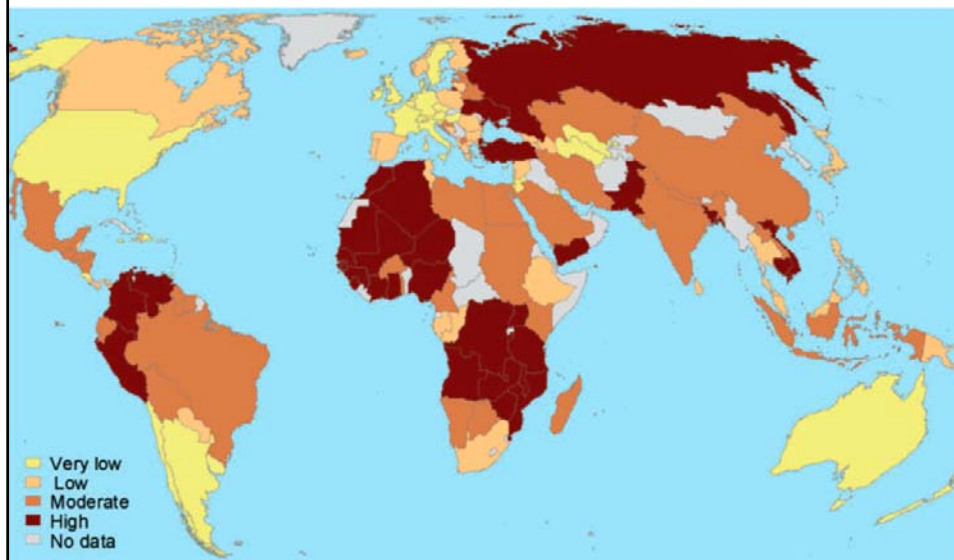
General Analysis priority activities in NAPAs



Importance of the sector to GDP

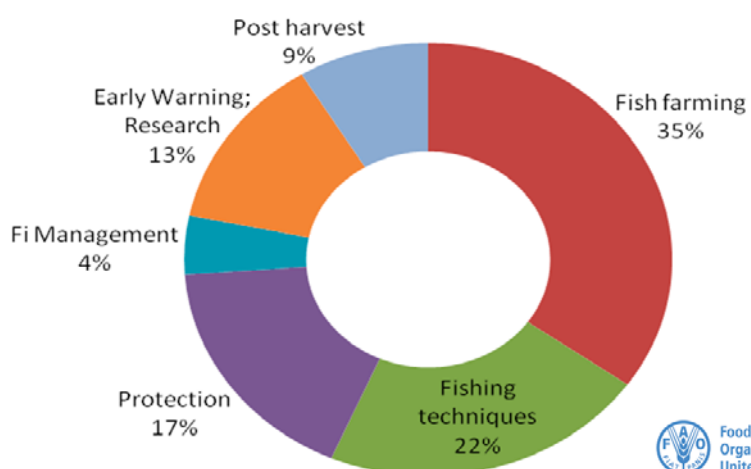
GROUP 1 (Lowest values)	Burkina Faso; Burundi; CAR; Ethiopia; Malawi; Niger; Sudan; Zambia
GROUP 2	Angola; Congo DR; Gambia; Haiti; Mali; Nepal; Togo; Yemen; Benin
GROUP 3	Cambodia; Cape Verde; Comoros; Equatorial Guinea; Guinea; Guinea Bissau; Madagascar; Tanzania
GROUP 4 (Highest values)	Bangladesh; Chad; Maldives; Mozambique; Samoa; Sao Tome and Principe; Senegal; Sierra Leone; Mauritania
Data not available	Afghanistan; Bhutan; Djibouti; Eritrea; Kiribati; Lesotho; Liberia; Myanmar; Rwanda; Solomon Islands; Somalia; Timor-Leste; Tuvalu; Uganda; Vanuatu

Vulnerability of the sector to CC ?



Examined specific fisheries and aquaculture priorities from NAPAs

Fi/Aq PAs



Sector priorities by country

- Fish farming (9 NAPA priority activities in Bangladesh (2); Cambodia; Guinea; Gambia; Malawi; Mali; Vanuatu; Zambia)
- Fishing techniques (4 NAPA priority activities in Comoros; Maldives; Sao Tome and Principe (2))
- Protection of the fisheries resources (7 NAPA priority activities in Guinea; Guinea Bissau; Kiribati; Mauritania; Tuvalu; Yemen)
- Post-harvest sector improvements (2 NAPA priority activities in Comoros; Togo)
- Research (3 NAPA priority activities in Sierra Leone (2); Solomon Islands)
- Early warning (4 NAPA priority activities in Malawi and Chad(2))



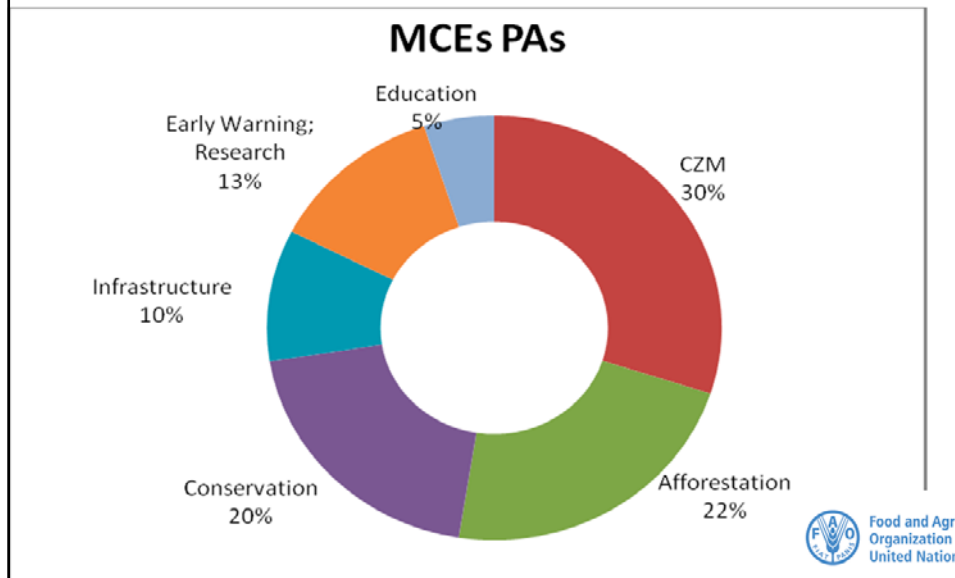
Marine and coastal Environment

Many NAPAs have marine and coastal management, integrated projects. For example,

- COASTAL ZONE MANAGEMENT (9 NAPA priority activities)Cape Verde; Djibouti; Gambia; Kiribati; Maldives; Mozambique; Sierra Leone (23); Solomon Islands; Togo; Yemen
- AFFORESTATION (9 NAPA priority activities)Bangladesh; Benin; Cambodia; Guinea; Madagascar; Mauritania; Senegal; Sierra Leone; Togo; Tuvalu; Yemen
- CONSERVATION (8 NAPA priority activities)DRC; Djibouti; Guinea; Haiti (3); Samoa; Tuvalu
- INFRASTRUCTURE (5 NAPA priority activities)Kiribati; Liberia; Maldives; Mauritania; Sao Tome` and Principe;
- EARLY WARNING; (3 NAPA priority activities)Guinea Bissau (2); Sierra Leone;
- RESEARCH (2 NAPA priority activities)
- EDUCATION (2 NAPA priority activities) Guinea; Guinea Bissau



Summary of submitted MCE -NAPA projects by sector



What were the gaps in the NAPAs ?

Inclusion :- The sector, is included in the majority of the NAPAs (36 of 44) at the time,

15 have deeper analysis.

The remaining NAPAs only mention briefly the fisheries sector. For example,

- Cape Verde, the Comoros, Kiribati, Liberia, the Maldives, Sao tome and Principe, Sierra Leone, the Solomon Islands, Tuvalu and Vanuatu, explicitly link fish and food security.
- The Comoros, the Solomon Islands, Gambia, Guinea Bissau, Vanuatu and the Maldives describe fisheries as one of the most productive sectors for their economy, (for instance in the Gambia's document fisheries is indicated as one of the principal export areas).

Gaps in the NAPAs ?

Exclusion or limited reference: Those NAPA's without fisheries and aquaculture as a priority area were :

- Niger and Burkina Faso, Sudan, Uganda, Burundi, Rwanda, Eritrea, Ethiopia, Tanzania, CAR, Lesotho, Chad
- Afghanistan, PDR, Bhutan and Timor Leste.
- Lao PDR : highly dependent on fish
- Angola, Equatorial Guinea and Senegal : Important component of fish in their diet,
- Senegal has no NAPA priority activity covering the sector.



Additional Gaps in the NAPAs ?

- Regional fisheries and transboundary fisheries management
 - These are not explicitly covered in NAPAs (NAPA based on national priorities). River basins (watersheds), LME's
- Secondary impacts should be analysed more systematically (eg watershed management for irrigation, flood protection, mangrove replanting), potential for maladaptation
- Broader vulnerability of the sector should be considered



Conclusions from the analysis

- The sector is **important** in terms of food security, poverty alleviation and CC adaptation and has some visibility in the NAPAs)and NC, NAP's NAPA's NDC.
- **Strengthening participation** of the sector in national planning (NAPAs , NAP/s NAMA's and INDC's_) to include and align to national policy if appropriate_(Food security, Ag, Fi, Fo).
- **Integrated/cross sectoral-** regional projects need good interagency/inter-ministry/region coordination and CC strategies (DRM, ICM, LME S2S, R2R)
- **Ecosystem based approaches** (EBA, EAA/EAFM) appropriate.
- **Linking NAPAs** to other funding sources to increase effectiveness (programming) (e.g. SCCF, Adaptation fund, bilateral funds, GCF)
- Focus should continue to be on implementing and learning lessons (flexibility of NAPAs can be an advantage and allow inclusion of the sector through SLA approaches for example)
- Links and learning from other regional programmes



What actions has FAO been taking in the region for Fisheries and Aquaculture AP region

- National projects (Myanmar, Bangladesh, Timor Leste, Cambodia) and others in preparation
- Myanmar (Fishadapt) Building resilience .
 - Policy and institutional development
 - CC adaptation at community level (EAFM/EAA).
 - Capacity Development, Knowledge management
- Integration into national cross sectoral projects
- Regional LME (BOBLME, ISLME) integrating CC



Working in partnership, Regional Bodies and organizations

- SEAFDEC/ASEAN
- NACA
- APFIC
- RFMO's
- SPC/FFA
- LME (s)
- Many others....



Thank you

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