

Thematic Evaluation Series

Evaluation of FAO's support to climate action (SDG 13) and the implementation of the FAO Strategy on Climate Change (2017)

Sector level study in fisheries and aquaculture

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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1. Introduction

1. At its 127th session,¹ the Programme Committee approved the evaluation of FAO’s support to climate action (SDG 13) and the implementation of the FAO Strategy on Climate Change (2017) (hereafter referred to as the SDG 13 Evaluation) , as part of the FAO Office of Evaluation (OED) rolling workplan for 2020–2021. The evaluation was also expected to entail an assessment of the implementation of the FAO Climate Change Strategy. Given the strong relationship between the targets of SDG 13 and the United Nations Framework Convention for Climate Change (UNFCCC), the evaluation also included the contribution of FAO to the commitments of the Paris Agreement (2015).
2. The evaluation is part of a series of (ongoing and planned) evaluations of FAO’s contribution to the SDGs and is completing OED’s evaluations of FAO strategies. The SDG 13 Evaluation is the second SDG-based evaluation conducted by OED after the *Evaluation of FAO’s contribution to Sustainable Development Goal 2 - “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”* (hereafter referred to as SDG 2+ Evaluation), and was built on the conceptual and methodological basis established by the SDG 2+ Evaluation.²
3. Agriculture sectors³ play a multiple role in the context of climate change. Agriculture and food systems are strongly climate dependent and therefore, directly affected by increasing temperatures and associated phenomena such as changing precipitation regimes. Emissions of food systems are estimated to make up 21-37 percent of total net

¹ FAO. 2019. *Report of the 127th Session of the Programme Committee (Rome, 4-8 November 2019)*. (also available at: <http://www.fao.org/3/na582en/na582en.pdf>).

² FAO. 2020. *Evaluation of FAO’s support to Zero Hunger (SDG2)*. FAO, Rome. (also available at: <http://www.fao.org/3/nc852en/nc852en.pdf>).

³ For the purpose of this evaluation, agriculture sectors comprise crops, livestock, fisheries and aquaculture and forestry.

anthropogenic greenhouse gas (GHG) emissions.⁴ At the same time, when water, land and resource use are well managed, agriculture becomes a fundamental economic sector to address both climate change mitigation (avoiding or capturing emissions) and adaptation (enhancing capacities of societies and individuals as well as natural systems to be better prepared for the effects of climate change).

4. This report is prepared as part of the broader SDG 13 evaluation, focusing specifically on the fisheries and aquaculture component of FAO's work.
5. Fisheries and aquaculture are among the most affected sectors by climate change, while also strongly contributing to, and providing solutions for, climate change. Global warming and sea-level rise are recognised to have direct impacts upon the fisheries and the people dependent upon them, being located at the frontline to bear the brunt of climate change. The frequency of the natural disasters, and their direct impact upon the fishers, their livelihoods and food security, also point to climate change as a major threat to the fisheries sector. Aquaculture systems, situated at the land-water interface with all the complexities that their location gives rise to, are equally prone to the climate change processes.
6. At the same time, as this evaluation will discuss, fisheries and aquaculture sectors have the potential to play an important role in mitigating the impacts of climate change. Much of the work in the sector, relating to responsible natural resource management, disaster risk reduction, more efficient production systems (craft, gear and aquaculture systems), potentially reduce people's vulnerability to the long-term climatic trends, to improving their adaptive strengths and resilience, and mitigate the negative impacts.

2. Methodology of the evaluation

7. The evaluation methodology involved:
 - i. Desk reviews of available information about the climate change projects in fisheries and aquaculture portfolio, which included Committee on Fisheries (COFI) documents, strategy frameworks, knowledge products, project documents and reports, and additional information supplied by the key informants (FAO and non-FAO) by email.
 - ii. Online interviews with FAO staff (at the HQ, regional and subregional offices) who are members of the Working Group on Fisheries, Aquaculture and Climate Change; with the FAO project staff (FishAdapt in Myanmar; CC4Fish in Eastern Caribbean; and the project on 'Strengthening the Adaptive Capacity to Climate Change in the Fisheries and Aquaculture Sector' in Chile), followed by email interactions for clarifications, additional information and validation of key observations.
 - iii. Online interviews with non-FAO stakeholders at the global (UNFCCC Secretariat; International Collective in Support of Fishworkers [ICSF]; Conservation International); regional (Network of Aquaculture Centres in Asia-Pacific [NACA], Bay of Bengal Programme Inter-Governmental Organization [BOBP-IGO]); and national (civil society organizations [CSOs] and Departments of Fisheries in Myanmar and India) to obtain their views on FAO's work on mainstreaming climate change in the sector.

⁴ Intergovernmental Panel on Climate Change (IPCC). 2019. An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, And Greenhouse Gas Fluxes in Terrestrial Ecosystems. Summary for Policymakers. (also available at: <https://www.ipcc.ch/srccl/>).

8. None of the climate action projects under the fisheries & aquaculture portfolio during 2016-2020 have yet been subject to final evaluations. Three mid-term reviews (MTRs) – for the Benguela Current Fisheries System project,⁵ the Myanmar FishAdapt project,⁶ and the Eastern Caribbean CC4Fish project⁷ – had been undertaken, only two of these MTRs were available to the evaluation, the third (dealing with CC4Fish) not having been officially approved yet.

3. Limitations of the evaluation

9. A major limitation of the evaluation of FAO's work in fisheries and aquaculture relating to climate change has been the COVID-19 pandemic and all that it entailed in terms of curtailing travel: both to undertake in-depth interviews with the key informants and to assess FAO's work in fisheries and aquaculture by actual field observations. To a good extent, this was addressed through a fairly comprehensive review of the available documentation and online interviews with the most important FAO and non-FAO participants in fisheries and aquaculture programmes, but a deskbound exploration does pose a significant limitation on the extent to which the issues could be understood.
10. Although climate action has a long pedigree within FAO's fisheries and aquaculture programmes, it is only in the last few years that the projects and programmes have actually gained weight and momentum. As suggested, there are, as yet, few comprehensive assessments of the projects, and the overall scope, structure, and shape of the climate agenda is still in the early stages of development. This required the evaluation to focus as much on what can still be done as on what has already been achieved.

4. Climate change projects in fisheries and aquaculture: a summary

11. Based on a project inventory prepared by the Fisheries and Aquaculture Division in October 2019 (FI FAO CC Project Inventory 2019), a broad summary is attempted to understand the scope of FAO's work in mainstreaming climate change into fisheries and aquaculture. This indicates that:⁸
 - i. There have been 86 projects in fisheries and aquaculture since 2006 which had a focus on climate change (ranging, as a proportion of the budget allocated, from 6-100 percent, while the budget component for 26 projects, including the support for developing countries in developing National Adaptation Plans (NAPs), could not be ascertained).
 - ii. A majority of these projects – with the exception of two – became operational since 2011.

⁵ GCP/SFS/480/LDF and GCP/SFS/480/SCF: 'Enhancing Climate Change Resilience in the Benguela Current Fisheries System' – Republic of Namibia, Republic of South Africa, Republic of Angola, GEF ID: 5113

⁶ GCP/MYA/020/LDF FishAdapt: 'Strengthening the adaptive capacity and resilience of fisheries and aquaculture dependent livelihoods in Myanmar', GEF ID: 5702

⁷ GCP/SLC/202/SCF: 'Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4Fish)'

⁸ All numbers self-calculated from information supplied by FAO Fisheries and Aquaculture Division - file headed "FAO Inventory of Climate Change Projects (fully dedicated or components)" and named 'FI FAO CC Projects Inventory_2019 01 October 2019'.

- iii. Since 2011, there have been 25 fisheries and aquaculture projects with 100 percent of their budget allocated to climate change actions.⁹ Together, these climate-focused projects are worth USD 40 million. Fifteen of the climate-focused projects have been supported by GEF/LDCF/SCCF whose total support for these projects amounted to USD 35 250 000, making GEF easily the most important donor for the climate change projects in fisheries and aquaculture.
- iv. Since 2016, 16 projects with 100 percent funding dedicated to climate change became operational in fisheries and aquaculture.
- v. As of October 2019, fourteen climate change projects (with 100 percent budget allocation towards climate change) were ongoing in fisheries and aquaculture, their combined budget amounting USD 31 million; 10 of them were being supported by GEF/LDCF/SCCF to the tune of USD 30 million (or nearly 97 percent of the total funding for projects with 100 percent budget allocation towards climate change).
- vi. Components of two projects – the Benguela Current Fisheries System and the IkanAdapt in Timor-Leste – are funded from two GEF sources, but are run as one joint project in each case, which brings the number of active projects to 12.
- vii. FAO's support for climate change programme from its own resources covered eight projects since 2011 (five of them with 100 percent support going to climate actions), but all eight were closed by October 2019.
- viii. The list of ongoing fisheries and aquaculture projects with 100 percent funding for climate change is provided in Appendix 1.

5. Key findings

12. To meet the evaluation objective, the following evaluation questions have been formulated. For each question, a set of sub-questions guided data collection and analysis as well as report writing.
 - i. Is FAO fit for purpose to significantly contribute to globally agreed climate action targets?
 - ii. Is FAO's making a relevant and effective contribution to globally agreed climate action related SDG targets?
 - iii. Does FAO optimally engage partnerships that leverage the effect of its work on climate action towards impact generation?
13. This section provides the key findings based on the sub-questions under each main evaluation question.

⁹ The list also contains nine projects whose budget allocation for climate change is not known, hence they are left out of the count.

EQ 1. Is FAO making a relevant and effective contribution to globally agreed climate action targets?

1.1. What have been FAO's main contributions (direct and indirect through other SDGs) to the SDG 13, and to the Paris Agreement, and how relevant are such contributions?

Finding 1. FAO's global positioning in relation to climate action has involved championing the inclusion of fisheries and aquaculture into the climate agendas with positive results.

14. In the global climate change forums, FAO has been quite active and prominent. Fisheries and aquaculture (and oceans) having received little interest in the early global climate processes, FAO's positioning has been rather unique and strategic as it assumed an active advocacy and lobbying role for mainstreaming fisheries and aquaculture into important UNFCCC and other global processes. In this role, FAO has succeeded to a good extent.
15. FAO has long been an active partner alongside other organizations and governments in the Ocean Community in the UNFCCC, and the group's work was instrumental in the inclusion of oceans in the climate dialogue (oceans were not mentioned in the early stages) and, eventually, in UNFCCC's official work programme in 2019.¹⁰
16. FAO, along with the other partners of the ocean community, organised events alongside the Conference of the Parties (COP) processes (such as Oceans Action Day of the Marrakesh Partnership for Global Climate Action 2019), where it managed to highlight its work in fisheries and aquaculture in addressing impacts of climate change, strengthening resilience, and other coastal management actions as part of Nationally Determined Contributions (NDCs).
17. At the UNFCCC COPs processes, FAO routinely provides technical advice to its member countries to support their involvement in the negotiations and in meeting their UNFCCC commitments. FAO's advocacy and lobbying work with a range of partners and participation in climate-related events is cited as having contributed to oceans finding a mention in the Paris agreement.
18. FAO's other lobbying and advocacy efforts have included:
 - i. Contribution at the Ocean Dialogue held during the 52nd session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) of COP 25 (2019), to ensure adequate representation of fisheries and aquaculture in the UNFCCC Working Group on Adaptation in Coastal Areas.¹¹ In this process, FAO took the lead in the process in sharing information, knowledge and experience about fisheries and aquaculture as well as adaptation and mitigation responses for the sector.
 - ii. As a partner of the UNFCCC Marrakech Partnership, FAO provided input for the Oceans and Coastal Zones Climate Action Pathways document especially regarding the areas of natural resources management and fisheries and aquaculture.

¹⁰ UNFCCC. No date (n.d.). *Calendar* [webpage]. In: UNFCCC {online}. Accessed at: <https://unfccc.int/calendar/dashboard>

¹¹ UNFCCC. n.d. *Oceans, coastal areas and ecosystems - Engagement opportunities and resources under the Nairobi Work Programme* [webpage]. In: UNFCCC {online}. Accessed at: <https://www4.unfccc.int/sites/NWPStaging/Pages/oceans-page.aspx>

- iii. FAO also contributed input and a proposal to UNFCCC Standing Committee on Finance (SCF) for the upcoming Forum on Finance for Nature-based Solutions with a focus on aquatic food production systems.
19. FAO actively provides input for relevant UN Secretary General (SG) or General Assembly (GA) documents upon request, such as UNSG report on oceans and the law of the sea on the topic of the focus of the ICP21 ("Sea-level rise and its impacts") and UNGA Resolution on Sustainable Fisheries (including climate change elements).
20. Perhaps most significantly, FAO's work has contributed to the September 2019 Special Report on the Ocean and Cryosphere (SROCC) of the Intergovernmental Panel on Climate Change (IPCC) when it echoed the most relevant messages of the FAO Technical Paper 627, and singled out the fisheries and aquaculture sector as one of the human activities exposed and vulnerable to climate drivers.¹²
21. Overall, the significance of FAO's contribution lies in ensuring that an important sector like fisheries and aquaculture received its due importance in the global climate processes, which is necessary as the coastal and fishing communities are highly vulnerable to climate change processes like sea-level rise.

Finding 2. Accessing climate finance for fisheries and aquaculture: FAO's work promoting the sector and leading to the development of a Strategy for Fisheries, Aquaculture and Climate Change (2011–2016) has been successful in generating climate finance to support mainstreaming and strengthening climate change initiatives in sector, and given rise to a growing portfolio of fisheries and aquaculture projects with a climate focus. However, the near total dependence on GEF – with SCF projects still in the pipeline – for financing is highlighted as a matter for concern.

22. The Fisheries, Aquaculture and Climate Change Strategy 2011–2016 was suggested in the interviews to have been instrumental in FAO generating climate finance to support its fisheries and aquaculture portfolio.
23. Primary funding for the implementation of the first (2011-2016) FAO Fisheries and Aquaculture Climate Change Strategy was made possible by support from the Governments of Japan and Norway (with additional funding from the Government of USA and the FAO's Regular Programme and TCP). In later years, the Global Environment Facility's (GEF) support helped the strategy to gain momentum, which has continued till date.
24. FIA's portfolio of fisheries and aquaculture projects with a focus on climate change (with varying levels of focus on climate change, reflected as a proportion of the project budget), which contains 86 projects since 2006.
25. In 2011, the year of inception of the Fisheries, Aquaculture and Climate Change Strategy, FAO had just one fully dedicated climate change project (i.e., with 100 percent budget), with an investment of a little under USD 2 million. By 2020, the total number of projects fully dedicated to climate change (with 100 percent budget allocation for climate change)

¹² IPCC. 2019. Special Report on the Ocean and Cryosphere in a Changing Climate: Chapter 5: Changing Ocean, Marine Ecosystems, and Dependent Communities. (also available at: <https://www.ipcc.ch/srocc/chapter/chapter-5/>); also <http://www.fao.org/blogs/blue-growth-blog/un-intergovernmental-panel-on-climate-change-ipcc-special-report-on-oceans-faos-response/en/>

- executed during the decade stood at 25, with the combined investment on them amounting to USD 40 million.
26. GEF/LDCF/SCCF supported 15 of the projects since 2011 with a combined funding of over USD 35 million, while FAO's direct assistance through its TCP and Regular Programmes, bilateral and other multilateral assistance (e.g., EU) accounted for the remaining projects.
 27. As GCF implementing Accredited Entity, FAO is helping countries to mobilize climate financing through technical assistance for project development. In 2018, following upon a workshop organised to better understand the needs and capabilities of Caribbean countries to respond to the impacts of climate change on the fisheries and aquaculture sector in coastal zone, several Caribbean countries requested for FAO's help in developing projects to respond to the impacts of climate change on the fisheries and aquaculture sector with GCF funding.
 28. Currently, GEF/LDCF/SCCF account for nearly 97 percent of the funding for fisheries and aquaculture projects with 100 percent of budget allocated for climate change. Two concerns were raised during the interviews regarding the dependence on GEF/GCF funding:
 - i. the first related to the issue that the funding is tied too much to the environmental/climate aspects, with other critical issues such as livelihoods, food security and poverty receiving less attention;
 - ii. the other concern related to the risks in relying on just one funding agency and its affiliates (GEF, SCCF, LDCF) to support almost the entire climate portfolio which, moreover, is likely to require increasing investments in the coming years.
 29. In Africa, the joint effort of FAO, the World Bank and the African Development Bank led to the development of the African Package for Climate-Resilient Ocean Economies. The three agencies coordinate their planned assistance with access to technical expertise and funding valued at USD 3.5 billion from 2017 to 2023. FAO has focused on strengthening this collaboration through the joint programme of work and the FAO Blue Growth Initiative. Since its launch in 2016, FAO has invested more than USD 45 million in delivering the package in 11 African countries to varying levels of engagement.
 30. Broadly, private sector and markets figure in climate action projects in fisheries and aquaculture in two ways: (i) providing project-based services (e.g., software development, web-based weather forecasting, GIS) and (ii) training the target groups in better aligning their work to market needs and opportunities (e.g., through value chain improvements, market linkages etc.).
 31. Private sector, financial institutions and markets – mentioned only generally in the FAO's strategy – have so far not been mainstreamed into taking an active role in supporting climate actions.
 32. While some projects, such as CC4Fish, focus on business development skills and exploring new credit/trade opportunities for the target communities, these tend to be more in terms of adaptation than to build long-term support for policy-level climate actions.

Finding 3. At the national level, FAO is leveraging its relationship with the governments to implement projects that attempt to inform and influence national policy frameworks to mainstream fisheries and aquaculture concerns in the national climate plans (NAPs and NDCs) and climate actions into sectoral plans and programmes. The work is still in early stages and the extent to which FAO manages to ensure policy-level transformative changes remains a difficult challenge.

33. FAO is implementing projects to support adaptation, risk reduction and resilience building in the Benguela Current (Namibia, South Africa and Angola), Malawi, Eastern Caribbean, Chile, Myanmar, Bangladesh, Cambodia, Timor Leste and the Lao People's Democratic Republic. Some of these (Bangladesh, Cambodia, Timor Leste, and Lao People's Democratic Republic) are in still very early stages or haven't become operational.
34. Alongside the GEF projects, FAO also supports ad hoc interventions at the country/regional levels involving TCP and Regular Programme projects, such as the Regional TCP on rice-fish and climate resilient tilapia (covering Bangladesh, Indonesia, Philippines, Sri Lanka and Viet Nam), rice-fish farming projects (the Lao People's Democratic Republic and Myanmar), the blue carbon project on integrated mangrove-shrimp project in Viet Nam, and the development of Cambodia national climate change strategy for fisheries.
35. Work is also ongoing in the framework of the mid-term strategy towards the sustainability of Mediterranean and Black Sea fisheries, involving the preparation of regional/sub-regional adaptation plan(s) for climate change.
36. Through its climate projects, FAO has been championing the incorporation of fisheries and aquaculture priorities into the national NAPs (e.g., Myanmar)¹³ and NDCs (e.g., through the Government of Norway supported project "Support Member Countries to Implement Climate Change Adaptation Measures in Fisheries and Aquaculture"), the latter also to enable countries to access climate finance but equally importantly to provide a direction and content to the suggested sectoral actions in the plans.
37. To facilitate the integration of fisheries and aquaculture in the formulation of NAPs, specific guidelines were developed as a supplement to FAO's *Addressing agriculture, forestry and fisheries in National Adaptation Plans – Supplementary guidelines* (NAP–Ag Guidelines), which collate and analyse relevant information from fisheries and aquaculture to support the sector's ability to take part in national climate change adaptation planning processes.
38. Mainstreaming climate change into the national policies and legislations, through the promotion of new approaches such as Ecosystem Approaches to Fisheries (EAF), is an important theme of most climate projects in FAO's fisheries and aquaculture portfolio.
39. FAO's climate action projects take cognizance of the drivers of degradation and depletion of fisheries resources, and initiatives such as the EAF have been identified by successive COFI sessions as important to address the climate change concerns through more responsible management at the sector level. Projects such as CC4Fish (Caribbean) and FishAdapt (Myanmar) have been implementing EAF programmes with suitable modifications to fit the local context in fisheries and aquaculture.

¹³ FAO & Ministry of Agriculture, Livestock and Irrigation. 2016. *Formulation and Operationalization of National Action Plan for Poverty Alleviation and Rural Development through Agriculture (NAPA), Working Paper – 4 Fisheries and Aquaculture*. Government of the Republic of the Union of Myanmar, Yangon. (also available at: <http://www.fao.org/3/a-bl835e.pdf>).

40. However, in practice, the extent to which EAF has been mainstreamed as a management strategy and yielded specific environmental and climate-related benefits remains doubtful.
41. For instance, in Myanmar, the capacity of FishAdapt's EAF programme to ensure multi-sectoral, multi-stakeholder participation in an essentially fisheries-based project is reported by the government as being minimal. Given the complexity of the EAF, the climate projects have reportedly begun to confine themselves to focusing on its institutional aspects, i.e., supporting structures to facilitate bottom-up decision-making from the local to the national; the 'ecological' aspects of the EAF are expected to take root eventually when the institutional mechanisms have become firmly grounded. This is a valid assumption, but as one NGO respondent suggested, it also requires a long time and continued effort to gestate and become productive, and the short lifespan of a project constrains it.
42. A more frequently expressed concern in this regard relates to the extent to which FAO could actually influence national policies to the expected level. As the mid-term review of the Benguela Current Fisheries project suggests:¹⁴ "Mainstreaming implies transforming the organizational culture of governments, public and private sector bodies and improving the quality of public policy and of governance itself... However, achieving these changes assumes that the Project can wield an influence on government structures and decision-makers in the three countries, which obviously exceeds a project's ability, unless its national coordination [mechanisms] are adequately integrated in governmental structures and its strategies are integrated in the marine CCA strategies of recipient countries." The mid-term review found no evidence of project-supported mainstreaming of CCA in existing national frameworks or in emerging climate change frameworks in any of the three countries.
43. Another mid-term review of the FishAdapt project¹⁵ in Myanmar also concludes that "the achievement of outputs 1.2, 1.3, and 1.4¹⁶ [is] not just difficult, but well out of the control of the project because the actual mainstreaming of its outputs rests in the hands of the government partner agencies and their commitment to do so remains as yet – doubtful."

Finding 4. FAO's knowledge products to improve understanding and support climate adaptation and resilience in fisheries and aquaculture are widely regarded as being comprehensive, accessible, and important (if not the only) sources of state-of-the-art knowledge and guidance. Hard evidence of uptake and usage is less forthcoming.

44. FAO's work in generating knowledge regarding climate change in fisheries and aquaculture has given rise to some unique efforts.

¹⁴ FAO. 2020. Mid-term evaluation of project 'Enhancing Climate Change Resilience in the Benguela Current Fisheries System'. Project Evaluation Series, 01/2020. Rome.

¹⁵ FAO. 2020. Mid-term review of GCP/MYA/020/LDF FishAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture dependent livelihoods in Myanmar GEF/LDCF/SCCF Project ID: 5702, draft.

¹⁶ The three outputs contributing respectively to: Myanmar's National Policy on Fisheries Sector and supporting regulatory framework (1.2), policies and strategies on fisheries and aquaculture sector-specific implications for key land-use planning and resource and adaptation options (1.3) and the resource tenure policy, legal and regulatory framework (1.4).

45. The Fisheries Technical Paper 627, *Impacts of Climate Change on fisheries and aquaculture: Synthesis of current knowledge, adaptation and mitigation options* (2018),¹⁷ is a landmark publication that covers a number of critical areas:
 - i. assessment of marine catch potential changes by exclusive economic zone (EEZ) and regional expert assessments;
 - ii. the first assessment of climate change implications for the inland fisheries sub-sector at national and river basin level; and
 - iii. assessment of impacts on aquaculture, including impacts from adaptations to other agricultural sectors.
46. The FTP 627 was based upon a wide range of regional and sub-sectoral analyses, further building upon a pioneering scoping study that FAO had published in 2009, and covers a broad range of topics from the nexus between food security and poverty in the climate change context, supported by an analysis of the global reliance on fish products and potential consequences of climate change on consumption and trade, and including a compilation of adaptation and mitigation responses.
47. FTP 627 was expected to be of direct relevance to Member Nations for policy development as it provides substantial material that can support the inclusion of the fisheries and aquaculture sector in the NDCs and can inform the development of NAPs for the sector, including a toolbox of existing and recommended fisheries and aquaculture adaptation tools and approaches, as well as guidance for the development and implementation of sectoral adaptation.
48. FTP 627 is recognised in all interviews with non-FAO stakeholders as an important, extensive and authoritative source on the subject, and reportedly contributed to some developing action plans by other organisations (NACA, ICSF).
49. Besides FAO has a long list of other climate change-related publications of relevance to the sector.¹⁸ To further support the integration of fisheries and aquaculture in the formulation of NAPs, specific guidelines were developed as a supplement to the NAP–Ag Guidelines. The guidelines collated and analysed relevant information from fisheries and aquaculture to support the sector's ability to take part in national climate change adaptation planning processes.
50. FAO's online Climate Smart Agriculture (CSA) Sourcebook includes fisheries and aquaculture (module B4) to better guide policy makers and practitioners to make the sectors more sustainable and productive, while responding to the challenges of climate change and food security.
51. Building on lessons learned from water accounting, FAO published a methodological framework, providing elements to improve the understanding of the economic, social and nutritional contributions of capture fisheries and aquaculture and their links to available inland water resources, to make a case for allocating space to the fisheries sector in the water arena where it stands in a vulnerable and isolated position.

¹⁷ Barange, M., Bahri, T., Beveridge, M., Cochrane, K., Funge-Smith, S., Poulain, F. 2018. *Impacts of Climate Change on fisheries and aquaculture: Synthesis of current knowledge, adaptation and mitigation options*. FAO Fisheries and Aquaculture Technical Paper No. 627. Rome, FAO. 628 pp. (also available at: <http://www.fao.org/3/i9705en/i9705en.pdf>).

¹⁸ FAO Fisheries and Aquaculture Climate Change Publications, a compilation. 27 May 2020, unpublished.

52. Highlighting the importance of emerging issues to food safety from climate change, FAO has focused on marine toxins, specifically Ciguatoxins (CTX) and Ciguatera Poisoning (CP), a poisoning syndrome caused by the ingestion of certain reef fish and shellfish from tropical and subtropical regions. The climate change link to increased instances of CP was discussed at the Thirty-second Session of the Codex Committee on Fisheries and Fishery Products (2016), where the Pacific Nations raised CP as an issue. Due to climate change, the increasing frequency of storms and hurricanes as well as the increase in sea surface temperature are expected to affect the distribution and proliferation of ciguatoxins (CTX) and makes the occurrence of CP less predictable.
53. The main output of the work on CTXs is a joint FAO-WHO 'Report of the Expert Meeting on Ciguatera Poisoning (CP)'. This guidance document was developed over a three-year period, based on a request from the Codex Committee on Contaminants in Foods (CCCF), to help the concerned countries to develop systems to monitor the CTXs in their fisheries.
54. Non-FAO stakeholders interviewed for the evaluation also highlighted the importance of FAO's other publications relating to overall fisheries management and development, statistics and normative guidance as having been relevant from a climate resilience perspective.
55. FAO-supported global voluntary instruments like Code of Conduct for Responsible Fisheries, the Small-Scale Fisheries Guidelines (VGSSF), and the Voluntary Guidelines for Tenure (VGGT) are reported to provide the framework of climate action drawing upon the commitments by national governments to the existing instruments.
56. Besides global publications, the various projects under FAO's climate change portfolio – e.g., CC4Fish in the east Caribbean and the FishAdapt in Myanmar – have published a wide range of materials targeting different stakeholders from the national partners to the community level.
57. The other key activity of FAO contributing significantly to the knowledge generation and dissemination are the expert consultations, workshops, symposiums, and other public events involving key actors – policy makers, technical experts, CSOs, community representatives etc.
58. While there is good appreciation for FAO's knowledge outputs on climate change in fisheries and aquaculture, a few concerns raised in the interviews included:
 - i. Weak monitoring systems to assess how the publications are contributing to the expected changes; the knowledge products are distributed through a diverse range of channels and there is no overall system to assess how the knowledge products results in changing attitudes, practices and behaviour in terms of climate action in fisheries and aquaculture.
 - ii. Targeting of the knowledge products confined to specialist/sectoral audiences, but given the importance of the consumers and the general public to the sector, there are few publications actually aimed at them to generate support for more responsible and climate-friendly production, trade, and consumption practices.
 - iii. The information and guidance are frequently pitched at a generic and global level, which reduces its relevance in terms of practical action either at the government level or at the field level.

Finding 5. FAO's climate adaptation strategies in fisheries and aquaculture have been pragmatic and low-key. They are evolving in the direction of building upon FAO's core competencies which involves strategic utilisation of its own work (past and ongoing) to address emerging climate needs while supporting its mandate of building sustainable food systems. The small size, number and scattered distribution of the projects have so far resulted in climate-related results being small, tentative, scattered, and not added up meaningfully to highlight and draw upon their normative benefits.

59. Developing the adaptation strategies is perhaps the most important component of FAO's projects as it involved addressing the climate challenges in a practical manner by drawing upon FAO's own core competency area: technical support at the grassroots' level.
60. Of the eight major climate-related projects in the portfolio, only five are actually operational (and at least two of them have not really progressed enough to make sense of their adaptation work), which makes it difficult to draw conclusions about which adaptation strategies worked and which didn't across the board in a context further complicated by the diverse ecological, geographical and institutional systems in which each of them operates.
61. In general, the important achievements in terms of obtaining the broader climate change goals in the fisheries projects are those that reflected FAO's core competency area: developing grassroots level, participatory, innovations in improving the existing processes, systems, and technologies. The success at the grassroots level in these projects provided a handle for the other 'core functions' of FAO to take a hold and build up towards a cohesive and sustainable policy response. At a higher (regional/global) level, the experiences would lead to the development of normative products. Finding 6 discusses this in more detail.
62. Alongside specifically climate-oriented projects, FAO's historical work in fisheries and aquaculture, which has a more immediate relevance to the SDG 14, may also have resulted in synergies with SDG 13 objectives in terms of several innovations which have a direct/indirect mitigation and adaptation dimension.¹⁹
 - i. The list of such innovations encompasses a broad range – from boat designs and construction materials, propulsion systems, fishing gears, bycatch reduction devices and fish aggregating devices, fish handling and preservation methods, value chain and market innovations – and while not all of them have been successful, several of these innovations have a climate change implication.
 - ii. Together, such innovations open possibilities for broadening the range of interventions that an adaptation and mitigation programme may consider for further work. FAO is probably not capitalizing upon the existence of a vast knowledge and experience in this regard.²⁰ FAO's recent publications on safety at sea (*FAO Safety at*

¹⁹ Examples of activities with a mitigation dimension include the work done by different FAO projects on FTT fish smokers, fish aggregating devices, bycatch reduction devices, fuel-efficient fishing practices, aquaculture practices, aquaponics (in CC4Fish), and some value-chain improvements. Some examples of innovations that can have an adaptation dimension include: fish loss assessment and reduction, bycatch utilisation and value addition, and improving market access.

²⁰ FAO's inability to take account of its overall achievements on the climate change front in relation to fisheries and aquaculture is reflected in the concern voiced by some of the FAO staff, when requested an interview for this evaluation, that they were not actively engaged with climate change adaptation work. However, when they took part in the interview and began explaining their work, they realised for themselves how several of their past/ongoing/future activities could have a direct adaptation/mitigation dimension.

sea for small scale fishers [2019] & FAO FIAO/C1153 *Global Review of Safety at Sea in the Fisheries Sector* [2018]) do not make a mention of climate change, despite its clear importance to sea safety.

- iii. The Food Loss and Waste in Fish Value Chains programme (<http://www.fao.org/flw-in-fish-value-chains/overview/objective/en/>), including most of the resources on the website, has no evident link to climate change, its overt focus being confined to SDGs 1, 2, 5, 12, 14, and 17 – but no SDG 13.
63. There are significant departures among the projects in terms of their models or their outputs and results to allow generalisations or consistency of approaches across the board. However, even as each project is developed and implemented according to particular contexts, there is evidence that inter-project collaborations within the climate portfolio have significant mutual benefits.
- i. For example, FishAdapt project in Myanmar drew upon the community vulnerability assessments work done by CC4Fish in the eastern Caribbean.
64. Concerns have been voiced in the interviews about the adaptation strategies about their scale and size, about their explicit contribution to climate benefits, and their post-project sustainability. That not all climate projects within the FAO portfolio follow similar strategies or focus on the same adaptation tools is also pointed to be reducing their normative significance.
65. In terms of mitigation, although the Fisheries, Aquaculture and Climate Change strategic framework (2011–2016) identified reducing GHG emissions as an important area of work, assessments of GHG emissions in the fisheries and aquaculture sector indicated an overall low contribution (emissions by fishing vessels accounted for 0.5 percent of the global emissions in 2012, while aquaculture emissions in 2010 amounted to 7 percent of those from agriculture) hence mitigation was generally not considered to be a major priority.
66. All the same, options for reducing fuel use and greenhouse gas emissions were still considered and some exploratory work undertaken. Opportunities for reducing fuel use and GHG emissions in capture fisheries ranging from 10 to 30 percent were mooted, some work done on vessel design in the eastern Caribbean, and a few expert consultations and some publications have been brought out.
- i. Publications: FTP 626 on quantifying and mitigating greenhouse gas emissions from global aquaculture; and publication on 'Improving feed conversion ratio and its impact on reducing greenhouse gas emissions in aquaculture'; Fisheries Circular (1080) on 'Fuel and energy use in the fisheries sector – Approaches, inventories and strategic implications'.
 - ii. Manuals on fuel savings in small-fishing vessels as a means to reducing GHG emissions (2012).
 - iii. Expert workshops on: Strategies and Practical Options for Greenhouse Gas Reductions in Fisheries and Aquaculture Food Production Systems, in 2013 (Bergen, Norway) and 2015 (Rome, Italy); Greenhouse Gas Emissions Strategies and Methods in Seafood in 2012 (Rome, Italy).
 - iv. Online tools: FISH-e: FAO's tool for quantifying the greenhouse gas emissions arising from aquaculture (<http://www.fao.org/fishery/affris/affris-home/fish-e-faos-tool-for-quantifying-the-greenhouse-gas-emissions-arising-from-aquaculture/en/>).

Finding 6. FAO's shift in implementing its national level projects, from the conventional grassroots-level innovations to national-level policy advocacy, has not been easy. However, the strategic approach adopted by the CC4Fish project provides the beginnings of a climate action model drawing upon its core strengths.

67. FAO's project implementation strategy required a shift to the national policy level advocacy efforts from the previous focus on grassroots level innovations, the latter exemplified in several Technical Cooperation Projects (TCPs) in different parts of the world.
68. FAO's core competency – as well as its credibility with the communities and the governments – is mentioned as resting on its work at the community level in developing technologies, practices and processes, which the FAO project would then leverage to establish sustainable support systems and enabling environments.
69. When the climate-action projects started becoming operational, they have had to work at the national level in order to undertake advocacy efforts efficiently, which necessitated a change in their implementation strategy, involving a shift from the local to the national planes.
70. For projects like FishAdapt, the transition has not been an easy one as the policy advocacy work took a considerable proportion of their time and effort, resulting in the adaptation programmes at the community level lag behind and frequently being boiled down to one-size-fits-all, top-driven, strategies applied across the board. The mutually reinforcing nature of the arrangement involving the macro- and micro-linkages, though envisaged in the project documents, has not been easy to obtain.
71. However, the work done by CC4Fish – to the extent this evaluation could ascertain it – shows the beginning of a model that seems to help FAO to make the transition while still drawing upon its core competencies and addressing the trade-offs at the community level.
72. The CC4Fish Project,²¹ working in the eastern Caribbean, has attempted a number of integrated innovations with successful results reaching up to good policy-level acceptance for the climate agendas. This evaluation identified five levels of engagement in the implementation of this project:
73. **Level 1:** At the grassroots level, the project worked on issues of direct importance to the fishers and other actors along the fishery value chains, including:
 - i. Assessing specific climate phenomena such as the growth of pelagic sargassum seaweed within the Atlantic North Equatorial Re-circulation Region NERR and the eastern Caribbean and assessing its impacts for the commercial flying fish and dolphin fish; issuing outlook bulletins and best practices guides to cope with sargassum.
 - ii. Estimating fish losses and promoting efforts at reducing fish waste (thus improving revenues, which were expected also to offset the expected reduction in fish availability in the Caribbean region attributed to climate change).
 - iii. Promoting use of ice (to improve quality in the immediate term, but also cope with the expected increase in sea- and air-surface temperatures in the region).

²¹ There was a mid-term review of the CC4Fish project but the report has not yet been approved, and the information about the project comes from the project sources and online publications, which needs further corroboration to understand its actual impacts.

- iv. Promoting bulbous bows in the fishing boats to help them glide better through water and thus improve their fuel efficiency (reduce costs and also GHG emissions).
 - v. Exploring options for value addition to tuna for maximise the value of the landed catch, with tuna catches in the Caribbean expected to be affected by climate change.
 - vi. Aquaculture and aquaponics to improve productivity and incomes of the aquaculture systems and to provide alternative income sources, while also being resilient to sudden adverse weather.
 - vii. Value chain improvements, covering freezers, storage facilities, market conditions, food safety and hygiene, primarily to reduce losses and increase income but also to enhance their climate resilience through reduced GHG emissions.
 - viii. Training and support for better sea safety and disaster risk reduction programmes, which were considered important in the face of the expectation that there will be a higher number of cyclones in the coming years.
 - ix. (Still in the pipeline) demonstrating a new fish smoking technique (the FTT smoker, tested and demonstrated in Africa and elsewhere by FAO) for smoking under-utilized species, which is expected to reduce wastage, costs, time and drudgery for the women, improve their health and utilization of the catches, while also contributing to improved environmental health and emissions.²²
74. **Level 2:** The next level of activities under the project focused on community capacity development; it included, at the community level, awareness and communication activities, training and exposure programmes, and a wide range of other activities *building upon the knowledge generated* by the project.
75. **Level 3:** At this level, the project focused on creating the enabling environment for the uptake of the activities, which included improving access to climate finance and assessments of the insurance needs and opportunities in the Caribbean fisheries sector as a means to improve their climate resilience. Under ICT, the project worked on the development of a mobile application in five project countries, to promote 'ICT-enabled resilience of small-scale fishers to climate change and variability'.
76. **Level 4:** at the macro-level, the project aided the governments in seeking external funding for climate change mitigation and adaptation projects via development of proposals as well as mainstreaming of the fisheries sector into the NDCs and other relevant plans and policies.
77. **Level 5:** At the normative level, the project published guidance and good practices for wider replication (as evidenced by the FishAdapt project using the guidance on community vulnerability analysis in Myanmar).
78. By successfully basing its work around the linkages between the marginalized and vulnerable fisherfolk, climate change impacts, food security and livelihoods, CC4Fish also covered the social inclusion aspects (though with limitations) and managed to ensure a successful acceptance for its work at all levels.

²² In fact, several of CC4Fish's adaptation strategies were a continuation of, or stemmed from, past work done by FAO in ostensibly non-climate change related projects elsewhere.

79. According to the project management, ensuring that the policy makers see a clear link between climate change and practical activities on the ground that not only address climate issues but also improve livelihoods, employment, and food security has helped to an improved policy-level response to suggested climate actions. Thus, a number of policy-support activities are underway in the project, including:
- i. Scoping studies to incorporate Ecosystem Approach to Fisheries (EAF), Climate Change Adaptation (CCA), and disaster risk management (DRM) into national fisheries policies, plans or legislation in four countries.
 - ii. Fisheries Management Plan for Fish Aggregating Devices (FADs).
 - iii. Draft Aquaculture Management Strategy for Saint Lucia incorporating EAF/CCA/DRM, developed through participatory consultation.
 - iv. The Development of a Protocol to Integrate Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture into the Caribbean Community Common Fisheries Policy has been finalized and endorsed by the CARICOM Ministerial Council in 2018.
80. While there is still a long way to go before the policy-level changes might take effect, the work of CC4Fish project – drawing upon FAO's core competencies at the grassroots level and building upon them to influence more effective longer-term policy actions at the national and regional levels – can still be a model for similar climate-related initiatives.

1.2. Is the climate agenda mainstreamed across FAO's portfolio of programmes and projects to ensure enhanced relevance and coherence with FAO's mission on climate action, SDG 13, the Paris Agreement and the evolving international climate agenda?

Finding 7. FAO's Strategy on Fisheries, Aquaculture and Climate Change predated SDG 13 and Paris Agreements, and remains well aligned with global targets and national strategies in terms of adaptation, mitigation and overall sectoral resilience.

81. FAO's work on mainstreaming climate change in fisheries and aquaculture started long before the formulation of SDGs and the Paris Agreement.
82. FAO's early emphasis on climate change was based upon the concerns and recommendations of successive Sessions of FAO's Committee on Fisheries (COFI). In its 28th Session, for instance, several members of COFI raised the issue of climate change, and how its effects were already observable both in the aquatic and terrestrial environments, including through species displacements, decreases in fishery yields of demersal and pelagic species and extreme weather events. Several small island developing States (SIDS) underscored their vulnerability to climate change.
83. Even earlier, in the 27th Session of COFI (2007), the members recommended that FAO should undertake a scoping study to identify the key issues on climate change and fisheries, initiate a discussion on how the fishing industry can adapt to climate change, and for FAO to take a lead in informing fishers and policy makers about the likely consequences of climate change for fisheries.
84. Successive sessions of COFI also emphasised the need for FAO to take the lead in generating knowledge about climate change and supporting Member Nations in developing appropriate policy and strategy frameworks to cope with the impacts of climate change.

85. Accordingly, FAO organised an Expert Workshop on Climate Change Implications for Fisheries and Aquaculture in Rome in 2008 which reviewed, in a first-of-its-kind exercise, the impacts of climate change at the ecosystem level, throughout the aquaculture and fisheries value chains, and on the communities dependent on these sectors. The workshop agreed on a list of far-reaching recommendations for national, regional and international action.
86. The recommendations led to the development of the FAO Strategy for Fisheries, Aquaculture and Climate Change, placed before the twenty-ninth Session of COFI (2011) which accordingly made recommendations on the FAO's future programme of work priorities.
87. The 32nd Session of COFI (2016) reviewed the Strategy for Fisheries, Aquaculture and Climate Change for 2011–2016, recognizing its alignment with the Department's strategic objective and organizational objectives for the sector as also with that of the Global Partnership for Climate Fisheries and Aquaculture (PaCFA) framework.²³
88. Although FAO's Strategy for Fisheries, Aquaculture and Climate Change preceded the formulation of SDGs and the Paris Agreements, it was well harmonised with the global climate action targets. In fact, it was reported in the interviews to have provided the model for FAO to develop its own strategy in 2017, which was more closely based upon the SDG and Paris Agreement objectives.
89. The Strategy is fairly inclusive for its time: it highlights the vulnerable communities and mentions gender and indigenous people, although it misses out on youth.
90. The Strategy was reported in the interviews to have helped to give direction to climate actions in the sector in the beginning and, critically, to generate the finance necessary for an active climate action programme focused on fisheries and aquaculture.
91. To underline the Strategy closer alignment with the global strategies, the 32nd Session considered a new draft strategic framework for fisheries, aquaculture and climate change for 2017-2020 period, which was intended to support FAO's broader, cross-sectoral strategy and framework for climate change and food security, which in turn was closely aligned with the global priorities on climate change as reflected in SDG 13 and Paris Agreements.
92. A new strategy for fisheries, aquaculture and climate change is currently under development. It is expected to take account of the past/current experiences and achievements in the sector relating to climate change as well as the future challenges, and ensure full alignment with FAO's own strategy on climate change and the global climate priorities.

²³ PaCFA was an informal group which arose out of a need felt to build a network that looked specifically into climate change. It was intended as a key to strengthen relationships with several of FAO's partners and increase momentum on climate change in the fisheries and aquaculture sector. Because it was informal, it relied on individuals and with the turn-over in the various institutions it progressively became less and less active over the following years. (Tarub Bahri, personal communication).

Finding 8. Trade-offs are apparent at the national level in terms of economic priorities vs long-term climate action agendas, and also among the different intersectoral priorities even in the climate action area. At the community level this happens in terms of livelihood needs vs climate action. FAO's projects are only partially able to address and/or accommodate such concerns, which weakens their work.

93. Trade-offs are reported to occur at the national level and the interviews with the project staff, partner government and NGOs, and the communities highlight at least two areas where FAO faces the challenge.
94. At the national level, in Myanmar, trade-offs are reported to exist between the government's need to focus its effort and resources on macroeconomic/development priorities which runs counter to its longer-term climate imperatives.
95. One INGO participant in the interviews also highlighted the existence of inter-sectoral competition for the resources available for climate action, spurred by the fact that climate change is frequently under the domain of the national Ministries/Departments of Environment, while those of Fisheries have only a marginal role in the national climate programmes.
96. At the community level, the trade-offs remain at a more existential level: the people's livelihood needs are not always coherent with the broader climate/environmental needs – at least in so far as the latter focus more on long-term actions with no immediate benefits. The CC4Fish project may have addressed this to a good extent by linking up the climate and livelihood agendas, but in the Benguela Current Fisheries Project and FishAdapt in Myanmar, the projects have yet to come up with meaningful ways of addressing climate actions while also ensuring that the people's immediate needs are met.
97. It has been suggested in one interview that FAO's inability to broaden the scope of its development support under a climate-project, except as an adaptation strategy, is owing to the conditionalities of GEF funding which are focused on climate- and conservation-agendas, giving limited scope for addressing the more immediate human and economic needs. The SCF conditionalities are suggested to be even stricter, which puts FAO at a disadvantage, but – it has been suggested – the failure to focus on the immediate needs of the people also has a more significant long-term impact on the effectiveness of climate actions themselves.
98. At the national level, interviews with the project staff indicated, the government as the project holder – and the need for the projects to depend on their continuous support for implementation – reduces the project's ability to ensure full compliance with the project agendas. At the local level, the more immediate priorities of the fishers and farmers are accommodated to some extent in the adaptation toolbox, but two issues – conservation vs livelihoods – are not always fully integrated into cohesive action.

1.3. What type of initiatives have been, or are likely to be, most effective to achieve significant and sustainable, results, and why?

Finding 9. Emerging directions in FAO's work on fisheries, aquaculture and climate change indicate a conscious shift in FAO's strategies and activities towards achieving more sustainable results in terms of climate action.

99. Some areas of FAO's work on climate change which are suggested as having a positive impact in the sector included the following.

- i. Although still a work in progress, FAO's work in the global arena to mainstream fisheries into climate change is suggested in the interviews as allowing the sectoral priorities to be better aligned and integrated into global climate change action plans for more strategic actions. Successive Sessions of COFI commends the work of FAO in the area of climate change in fisheries and aquaculture, and its engagement with the UNFCCC.
- ii. FAOs' work in successfully mobilizing climate finances has led to implementing several projects in fisheries and aquaculture around the world, and there is much appreciation for the support from the concerned national governments. Of late, FAO – as a GCF implementing Accredited Entity – has also begun assisting countries (e.g., Caribbean nations) to identify specific opportunities for technical assistance and financial support from the GCF in the areas of readiness and project development, and received requests from several Caribbean countries for technical assistance for project development from FAO.²⁴
- iii. FAO's knowledge products are highly valued for their objective reporting, in-depth coverage and accessibility, particularly for raising all-round awareness in mainstreaming the climate issues and strategies in fisheries. Further, the work on emerging issues like CTX poisoning further highlight the food safety issues in climate change.
- iv. FAO's past and ongoing work on grassroots level innovations in systems, practices, and technologies which has a direct relevance to SDG 14, provides a large stock of potential adaptation and mitigation strategies in fisheries. But, to be truly productive, their synergies with SDG 13, in terms of CCAM benefits needs to be better understood, mainstreamed into a strategy, developed into a toolbox of normative options for usage, and monitored effectively.
- v. The different activities mentioned may be taken as the different dimensions of an effort at transformational change at FAO as an institution, and indicate that such a change has indeed been happening, though – as one interviewee put it – it could be faster and be more efficiently implemented.

Finding 10. FAO's work on mainstreaming fisheries, aquaculture and climate change into mutually-cohesive programmes of action at the global, regional, national and local levels involves diverse actions at different levels and scales, and the evidence – assessed for its overall transformative potential rather than in individual activities – indicates that FAO is making a significant, though still small, contribution.

100. A change, to be transformational, needs to involve radical transformations in the way the structures, policies and processes function in order to promote new agendas in an appropriate manner. It is necessarily a long-term change, especially for an agency like FAO with a large foot print around the world, with a large portfolio of activities, with specific objectives (sustainable food systems) and a long history of standard operational procedures to achieve those objectives.
101. The fact that climate action is relatively new entrant into the fisheries and aquaculture portfolio makes it too early to discuss about its transformational potential. There are far too few projects, whose work has yet to graduate into a more meaningful response

²⁴ Committee on Fisheries, Thirty Third Session – Climate Change and related matters (COFI/2018/10/Rev.1).

normatively. In the meantime, what exists is more on an aspirational plane – change is happening but slowly.

102. The question at this stage may therefore be: Is there evidence that FAO is aware of the need for transformational change at a radical level and going along the path of change? Going by the evidence presented under the findings presented in the previous sections, the answer is in the affirmative.

EQ 2. Is FAO fit for purpose to significantly contribute to globally agreed climate action targets?

2.1. To what extent are overall FAO's Strategic Objectives, Results Framework and Strategies (current and under development) aligned with global policies and strategies such as Agenda 2030 and the Paris Agreement?

2.3. Does FAO have clear and articulated institutional strategies and plans to support climate action?

Finding 11. Strategies are in place to mainstream climate action, covering fisheries and aquaculture as well as FAO as a whole, are in place; they are well-aligned with global priorities and take account of emerging challenges, opportunities and objectives; but their 'strategic' institutional effectiveness in terms of mainstreaming climate actions in the sectoral programmes and projects remains weak.

103. The two relevant FAO strategies – one for FAO as a whole and the other specifically covering fisheries and aquaculture – are well aligned with global policies and strategies; the Fisheries Strategies – the original framework covering 2011–2016 and the draft strategic framework for 2017–2020 (as presented at the 33 Session of COFI), have reflected the current state of knowledge about climate change and CCAM options, global priorities and objectives, and the emerging challenges and opportunities.
104. The new Strategic Framework – currently under development – is expected to reflect the same priorities, ensuring that any gaps in the programmes (e.g., some areas in aquaculture) are more effectively and adaptively addressed.
105. The strategies are expected to obtain a broad range of results on the climate adaptation, mitigation and resilience fronts, but there is no systematic framework (i) to ensure mainstreaming of the intended results into the programme/project development frameworks and (ii) to monitor how (or whether) these are being achieved, with the result that while climate change is included in the project documents as a cross-cutting theme, it is not often supported by adequate effort to ensure their delivery.
106. In practice, the interviews indicated, the Strategy document was useful to the extent that it provided a sense of direction and helped the Department to list out its priorities and possible areas of work, but as the implementation of programmes gained momentum, the it lost importance and there is little evidence that it has guided any of the more recent activities in NFI.
107. Overall, the current role of the existing FAO strategies remains more advisory and aspirational than operational. The interviews showed that the staff – even those who were part of the Climate Change Working Group – were not being fully aware of the contents of the Strategy or the more recent developments concerning its proposed updating. Thus, for instance, although the process for formulating a new Strategy began in February 2002, it

made little progress at the time of this evaluation (October 2020) on account of not receiving input from the different sub-divisions, which is explained to be a result of existing heavy workload within each sub-division.

Finding 12. Climate change has become an important priority in fisheries and aquaculture, but its mainstreaming is limited by weak coordination, monitoring and reporting systems to institutionalise them, to consolidate the climate benefits, and to develop them into normative products for scaling up and replication.

108. Climate change is a cross-cutting theme for all FAO projects (including fisheries and aquaculture projects), as per FAO's Strategic Framework (2017)²⁵ and interviews showed that there was strong interest in addressing climate change processes and strategies at all levels within the Fisheries and Aquaculture Department and in the regional and subregional offices.
109. In projects/programmes focusing on climate actions (as with those focusing on fisheries management), FAO's implementation strategy is implicitly shifting away from its conventional approach involving grassroots level innovations to macro-level policy/institutional support.
110. However, there is no systematic mechanism to ensure effective climate inclusion into the projects; the level of attention paid to climate change and to assess the impacts of the work vary from project to project.
111. The lack of a unifying framework, supported by strong indicators and effective systems to ensure compliance, monitoring and reporting, results in FAO overlooking the climate implications – including the positive ones – of its non-climate change fisheries and aquaculture projects, e.g., involving fish loss assessments and FTT fish dryers.
112. This is suggested in interviews to be on account of the weak convergence between FAO's primary focus on sustainable food systems (e.g., biodiversity concerns in fisheries and aquaculture) and the climate agendas. The technical resources and expertise in the Division are largely geared towards focusing on the former, which also means that unless the climate issues and solutions make sense from a sectoral perspective, the potential for mainstreaming them remains doubtful.
113. Some interviewees pointed out that the real impetus for FAO's work often comes not from its own strategic priorities, but from (i) the donor priorities, (ii) from the COFI (which – though supportive of climate actions – also concerns itself with a wide range of biodiversity concerns that may take priority over climate actions), and (iii) the national governments who, as the main FAO partners, have quite a significant role in influencing the scope, strategy, and direction of a project. Although there is increasing convergence of intent among the various actors and their visions, there are still occasions when the priorities may vary and restrict FAO's ability to steer its own course on climate actions.

²⁵ FAO. 2017. *Reviewed Strategic Framework*. Conference Fortieth Session, 3-8 July 2017, Rome. (also available at: <http://www.fao.org/3/a-ms431reve.pdf>).

Finding 13. Working groups – within and between the FAO departments/divisions – exist but the roles are not adequately clarified or mainstreamed to ensure compliance with their agendas.

114. To improve information sharing and coordination within the Department, a Fisheries and Aquaculture Working Group on Climate Change was established with its members drawn from all sub-divisions and the regional/sub-regional offices; the Working Group also served as the fisheries and aquaculture focal point for liaison with Inter-Departmental Working Group (IDWG) within FAO and with external bodies like the UNFCCC Secretariat.
115. However, the strategic effectiveness of the Working Group has remained weak; apart from meetings to share information – which may or may not have practical implications – there is little evidence of concrete climate-related actions emerging from it.
116. It has also been suggested that, without mechanisms to ensure that the representatives of different sub-divisions and regional/subregional offices are able to collect and present the broader consensus within their own grouping, the Working Group meetings fail to capture a wider range of priorities and inputs adequately.
117. The Inter-Departmental Working Group on Climate Change does not appear to fare any better; there is little evidence of inter-sectoral coordination and cooperation in development and implementation of climate strategies or activities at any level.
118. The lack of active participation/contribution to the Working Groups is explained as partly owing to each sub-division functioning on particular aspects of its focus and expertise and not necessarily being used to collaborating across sub-disciplines. This gives rise to a silos-within-silos condition, as – as the higher level – the Fisheries and Aquaculture division faces a similar predicament when it comes to inter-sectoral coordination.
119. As a result, the bulk of the climate work in the Division is carried out by a very small number of people, who also handle other responsibilities, which further reduces the extent to which the department can mainstream climate issues within its work as well as its capacity to promote fisheries and aquaculture agendas globally.
120. FAO's operational procedures for mainstreaming climate action vertically – i.e., HQ, regional, sub-regional, and national offices – and horizontally – i.e., involving inter-project coordination mechanisms among the climate action projects – remain weakly coordinated.
 - i. In terms of vertical harmonisation, one subregional officer gave an example of a disconnect between FAO's global commitments and the prevailing local realities, which affect the sub-regional office's ability to perform appropriately; issues such as gender and indigenous people are highlighted in this particular context as posing problems as the local realities differed from the guidance coming from the HQ.
 - ii. In a different case, an example is provided by a sub-regional officer about the HQ not informing their office regarding new initiatives even though they may concern the latter directly, leading to the sub-regional offices being burdened with additional work – or agendas – to deal with which they are sometimes unprepared.
 - iii. There are also cases where, despite the HQ staff and the sub-regional staff having worked together on specific activities and projects, the publications and other outputs from the project are entirely handled by the HQ without reference to the sub-regional offices.

- iv. At a more practical level, the issue of not receiving timely and appropriate support for implementation from the HQ have been identified as affecting the delivery mechanisms.
 - v. Conversely, interviews with the HQ staff suggest that the decentralisation of FAO down to the regional level led to the creation of several semi-independent entities ('mini-FAOs'), which work according to their regional priorities and give low priority to the guidance or requests for support coming from the HQ.
121. In terms of inter-project coordination, two dimensions have been highlighted as having an impact on a project's work.
- i. The lack of arrangements on the conclusion of a project to ensure the continuity of institutional memory and linkages in order to help a successor project to carry forward and/or build upon its work (even within the same country), requiring the new projects to start all over again. This is particularly critical when one phase of a programme or project ends and the next becomes operational after a gap of several years (e.g, the Bay of Bengal Large Marine Ecosystems Project – BOBLME – the second phase of which is being launched in 2020, i.e., five years after the first phase ended).
 - ii. The other dimension relates to the gaps in institutional coordination between the various climate action projects being implemented by FAO in different parts of the world. Despite some projects having a better experience and having developed normative products of relevance to other projects (as happened in the case of the community vulnerability assessments that CC4Fish had developed in the eastern Caribbean and later utilised by the FishAdapt project in Myanmar, which however happened because of personal, rather than institutional, linkages among the project staff), weak inter-project coordination mechanisms restrict the scope for learning from one another.
 - iii. At least in one instance in Myanmar where, though unrelated to climate action, one FAO regional programme (BOBLME) and one FAO national project (GCP/MYA/010/ITA) worked around the same timeframe on similar themes (Ecosystem Approaches to Fisheries Management), and yet the activities were reportedly implemented oblivious of each other.
122. There were some efforts at inter-project coordination between different climate action projects until a few years ago, but they came to a stop reportedly owing to logistical difficulties. There has been one ad hoc opportunity for inter-project coordination in early 2020s, which was much appreciated by the project managers who requested for more regular inter-project coordination, but there are currently no institutionalised mechanisms to facilitate this process.
123. Each project being developed as an independent entity in itself with few horizontal linkages to other FAO work was suggested in the interviews as a reason for failing to justify the additional effort and costs involved in better integration of the projects.
124. With a new climate change unit coming up at the HQ and new climate change officers being employed fulltime in all regional offices, one regional officer explained that there is an expectation that the coordination of climate-related efforts will improve across the board.

Finding 14. The strategies and implementation of climate action projects take cognisance of vulnerable population, gender and social inclusion issues, but their effectiveness is compromised by weak capacities at the implementation level.

125. FAO's work on climate actions is expected to encompass the vulnerable populations by default since a majority of fishing and aquafarming communities are vulnerable to extreme weather events and long-term climate impacts. The FishAdapt project document, for instance, takes account of the physical/chemical, biological and ecological indicators of ongoing change and the results of the predictive models which demonstrated the urgency of assessing the vulnerability of the different fisheries and fishing/aquaculture communities to ongoing climate change and variability. It then suggests taking steps to increase the resilience of those considered most vulnerable.
126. Community vulnerability assessments (CVAs) have been an integral part of FAO's work on climate change in fisheries and aquaculture. Starting with a Technical Paper (597),²⁶ published in 2015, CVAs have been attempted in at least three FAO climate projects – CC4Fish, FishAdapt, and the Benguela Current Fisheries project. Gender figures prominently in the CVAs.
127. While FAO's efforts at gender and social inclusion appear to work well at the global and normative levels (i.e. in terms of flagging gender and the vulnerable and marginalised communities as priority areas in the Voluntary Guidelines for Small-Scale Fisheries-VGSSF), the actual field-level mainstreaming of the social inclusion aspects remains weak. Frequently, the efforts at mainstreaming vulnerable and marginalised groups (on the basis of gender, ethnicity, age, disability) gives rise to a complaint that the inclusion processes are based on expediency and ad hoc arrangements, the 'by-the-numbers' approaches missing out on the empowering aspects of the participation.
- i. The MTR of the Benguela Current Fisheries project found that: "At operational level, there is an adequate focus on the number of women benefiting from the intervention, but without paying particular attention to how to remove structural barriers to existing gaps and disparities. In particular, the Project lacks a specific focus on women's empowerment to enable them to participate in marine fisheries-based value chains. Gender related issues such as training women for entrepreneurship skills in fisheries value chains and access to credit for investing in fisheries activities are not addressed."
 - ii. In relation to the vulnerable communities, the MTR concludes: "[The project] missed an opportunity of using the conclusions of the preparatory TCP to develop CCA actions to address immediate needs of the most vulnerable fishers' communities."
 - iii. In case of the FishAdapt project in Myanmar, the MTR cautioned that, while all project activities paid attention to gender in implementation, there was a risk that simply counting the number of men and women attending meetings and trainings or taking part in the project activities did not imply 'gender mainstreaming', and that the project would need to pay attention to the quality of participation of men, women, and youth in its activities.

²⁶ FAO. 2015. *Assessing climate change vulnerability in fisheries and aquaculture: Available methodologies and their relevance for the sector*, by Cecile Brugère and Cassandra De Young. FAO Fisheries and Aquaculture Technical Paper No. 597. Rome.

128. Project staff complain about the lack of practical guidance from FAO about mainstreaming gender and other marginalised groups. Although there are several guides on gender mainstreaming published by FAO, they are reportedly too theoretical and generic and not sufficiently flexible or practical enough to be adopted to specific local contexts or to help non-specialists to follow the guidance usefully.
129. In the South Pacific, the inclusion issues in relation to the indigenous people (IP) are suggested as posing a particular challenge to FAO's mainstreaming guidelines: with 99 percent of the population in several South Pacific countries falling under the indigenous category, the issue facing FAO in countries like Fiji concerns how to ensure the inclusion on *non-indigenous people* in its activities. This concern goes against FAO's global stand which supports the inclusion of IP and also highlights the need for the global norms to be sufficiently flexible to be adopted to the local context.

2.2. How is FAO's mission on climate action reflected/included in the institution's governance, operative structure?

Finding 15. FAO's conventional project-based strategy, which involves a three to five-year engagement focusing on specific outputs and outcomes, seems less appropriate for promoting climate agendas and policy-related transformations, which may require longer duration and a different set of skills and strategies for effective delivery.

130. FAO's sectoral expertise is exceptional; however, the skills required to develop more broad-based, multi-sectoral, multi-stakeholder processes are not always available within the fisheries and aquaculture community of experts.
131. According to some external respondents, FAO's conventional project-focus, which was appropriate to address some of its specific areas (fishing technologies, post-harvest, and marketing), may not be appropriate when the attention shifts to issues such as climate change adaptation and mitigation and biodiversity.
132. Interviews with the regional and non-governmental stakeholders suggest that FAO's skills, capacity, and resources (time, funding, personnel) for implementing deep-rooted change at the sectoral policy level are not often adequate.
133. Especially, in relation to the timeframes, many project personnel and their national counterparts have suggested that the conventional project life of three to five years is not adequate to bring about real change, which typically requires developing locally appropriate policy guidance and mainstreaming it into the existing policy processes. The delays that attend the inception and implementation of FAO projects further reduce the effective project life.

Finding 16. Procedural complexity working against achieving timely and sustainable results.

FAO's processes are considered to be time-consuming and complex, lead to considerable delays in launching the projects, staffing them, and ensuring timely support with the necessary resources for the projects and their partners for effective delivery.

134. A major problem highlighted in most projects involves the long and difficult processes of developing and implementing projects. A couple of examples:
 - i. The GEF-supported, FAO-executed, Bay of Bengal Large Marine Ecosystem (BOBLME), which had been in the pipeline since late-1990s could become operational only in 2009

- and when its first phase ended in 2015, it took another five years before the second phase could be launched.
- ii. Another FAO project, 'Climate Adaptation and Resilience in Cambodia's Coastal Fishery Dependent Communities', was first submitted to LDCF for funding in 2015, and is still in the processing stages owing to funding constraints and subsequent revision of the PIFs.
135. Within the projects, the recruitment of the key personnel is another important constraint in operationalising them.
- i. In the Benguela Current Fisheries project, for instance, while the implementation agreement was signed in January 2016, the Project Manager was recruited in October 2016, the National Coordinator for Namibia in July 2017, for South Africa in October 2017, for Angola in November 2017, the Communication Officer in December 2017, the Fisheries Community-based Resilience Expert in January 2018, and the M&E officer in October 2018.
 - ii. In Myanmar's FishAdapt project, which started officially in May 2017, there was a significant delay before implementation could begin and most of the activities proposed to be undertaken during 2017 and 2018 were delayed until the Project Manager/CTA's arrival in Sept 2018. The delay in the recruitment of the Project Manager/CTA was reported to be owing to the long internal procedures at FAO. The time taken for recruitment of staff and preparation of work plans led to the project becoming fully operational only in January 2019.
136. Besides, the long procedures involved in approvals for LOAs and procurement of important inputs for the project, etc. are reported to delay the project implementation, loss of credibility with partners, and reduced capacity to deliver the outcomes.
137. One sub-regional officer mentioned FAO's tardy and complex procedures may be contributing to the donors seeking to work in Africa with organisations like United Nations Environment Programme (UNEP) in preference to FAO, despite the latter's long experience and wider presence on the continent.

Finding 17. Monitoring of how climate actions are mainstreamed at all levels of FAO and in the projects remains weak.

138. The Strategy Framework does not have any indicators to support climate actions, nor are there any mechanisms to monitor the performance of the various projects and activities in terms of climate objectives, especially in terms of global priorities.
139. At the project level, monitoring systems within even climate-related projects remain weak:
- i. The Myanmar FishAdapt project developed a monitoring, evaluation, learning and implementation (MELI) plan only in December 2019, when the project was already three years into the implementation. Without effective baseline data and information, it would become quite difficult to assess the project's achievements when it ended.
 - ii. In case of the Benguela Current Fisheries project, the MTR found that, although the project put in place a monitoring and evaluation and learning system, it was not monitored effectively and efficiently and that its complementarity with the communication function was weak. This system was not sufficiently robust to allow monitoring and evaluation of the transformative processes and changes that the

project supports. Furthermore, it did not sufficiently address project's performance on output and outcome indicators, or learning needs for policy making.

2.4. How relevant and adequate are FAO's delivery mechanisms, human and financial resources and monitoring systems to address country/regional level needs and to plan, budget, monitor and communicate FAO's support in achieving the targets posed by SDG 13 and by the Paris Agreement?

Finding 18. FAO's delivery mechanisms respond well to the demand from Members, but run the risk of being dominated by the partners and inability to deliver on the core objectives.

140. FAO's national projects are, in theory, owned by the national governments and FAO's role in implementing the project with technical support puts it in a difficult position. On the one hand, it has the responsibility of delivering the expected outputs and outcomes, while on the other, its functioning is subject to the government's approvals.
141. While notionally owned by the governments, the projects tend to be considered as 'FAO's', and the delivery of results expected of the partner departments/ministries – based on their commitments in Project Documents (Prodocs) – is frequently noted under 'assumptions' thereby leaving the project with the sole responsibility of even results that are the responsibility of the partners.
142. Even though FAO tries to overcome this by setting up project steering committees and national project coordinators who facilitate the approval processes and mainstreaming of the outputs into the systems, the overall responsibility for the project's delivery largely rests with FAO.
143. Frequent changes in the partner ministries/departments – especially of the personnel at the top and those on whom a project depends for the execution of its programme – as a major and constant risk for projects (e.g., FishAdapt) is highlighted by several respondents. This compromises a project, as it is deprived of the human resources to implement its activities and the champions to ensure the mainstreaming and sustainability of its policy-oriented results.
144. In several countries, the partnership with one ministry/department – Fisheries and Aquaculture, in this instance – has been reported to have reduced FAO's ability to influence the other ministries and departments on climate actions (especially as climate change is frequently under the aegis of the Ministry of Environment in many countries).

Finding 19. For delivery of its outputs and outcomes, FAO depends on external consultants working on project budgets resulting in timely delivery of quality outputs, but restricts the scope for their institutionalisation and sustainability.

145. FAO employs world-class expertise to manage and guide its activities, and the quality of FAO's delivery commands respect among the partners, especially Member governments.
146. The external consultants are employed on short- and long-term assignments, and working with the consultants has the advantage of tapping their wide-ranging experience, ensuring that the work proceeds to specific targets and timeframes and delivering the results professionally.
147. But, interviews with the experts show that the temporary nature of the engagement and their employment on the project budget mean that (i) their capacity to influence or sustain

change is confined to the project level and (ii) the normative component of their work is not well institutionalised into FAO systems.

Finding 20. The ambitious results that a project commits itself to deliver over relatively short time span result in the project always struggling – and potentially failing – to deliver its results.

148. The climate action projects have very ambitious targets which are either too large or beyond its scope to achieve during its lifetime. Thus, in case of FishAdapt project in Myanmar, the ProDoc commitments under Outcome 1 (the project has four Outcomes) include:

- i. Mainstreaming CCA into 14 State/region level and three Union level Fisheries and Aquaculture strategies and laws.
- ii. Mainstreaming Fisheries and Aquaculture CCA into three and other relevant sector laws, at national level.

149. In terms of its commitment to numbers, the FishAdapt ProDoc offers:

(Under Outcome 1)

- i. 2 400 km of coast, 390 220 km² of sea and 4 000 km of rivers and watershed will be under fisheries and aquaculture policies, laws or strategies strengthened for CCA.
- ii. Individual capacity of 3 500 Government (DOF, MLFRD, MOE, MOF, NGO, University and partners) staff will be developed in EAFM/EAA-CCA planning and implementation.
- iii. Advocacy and awareness of CCA in fisheries and aquaculture reaches 3 000 000 stakeholders nationally.
- iv. 150 000 stakeholders benefit from improved climate change impact monitoring, reporting, and EWS.

(Under Outcome 2)

- v. 45 000 direct fisheries and community stakeholders in Rakhine, Ayeyarwady, Yangon and Dry Zone areas will (30 percent women and 25 percent youth) have access to improved CCA technologies and practices and reduced vulnerability to climate change.
- vi. 75 communities have reduced vulnerability to climate change impact through Fisheries EAFM-CCA plans (developed and implemented).
- vii. 75 000 stakeholders benefit from improved climate change impact monitoring, reporting, and EWS for fisheries.

(Under Outcome 3)

- viii. 45 000 direct aquaculture stakeholders in Rakhine, Ayeyarwady, Yangon and Dry Zone areas (30 percent women and 25 percent youth) have access to improved CCA technologies and practices and reduced vulnerability to climate change.
- ix. 75 communities have reduced vulnerability to climate change impact through Aquaculture EAA-CCA plans (developed and implemented).
- x. 75 000 stakeholders benefit from improved climate change impact monitoring, reporting, and EWS for Aquaculture.

(Under Outcome 4)

- xii. Advocacy and awareness of CCA in fisheries and aquaculture reaches 3 000 000 stakeholders nationally through systematic communication strategy.
 - xiii. 369 000 stakeholders benefit from improved climate change impact monitoring, reporting and EWS.
 - xiii. 15 training courses developed (and 150 courses run) in Myanmar language for staff of government and partner agencies (DOF, MLFRD, MOE, MOF, NGO, University and partners) EAFM/EAA-CCA planning and implementation.
150. Clearly, the capacity of a three-year project with a core funding (from GEF) of USD 6 million to achieve such big targets across a whole country is extremely small. There are also commitments that are clearly not within the capacity of the project to deliver, e.g. to 'reformulate' policies along more sustainable lines or to implement multi-sectoral and multi-stakeholder partnerships.
151. The focus on the extent of coverage in numbers has a direct impact upon FAO's ability to develop normative products; as the projects are constantly working towards as wide a coverage of their activities as possible, they have less time for focusing attention on a few specific activities which have a normative potential.
152. Each project is also considered an end in itself, and designed without a realistic exit strategy or any thought being given to the possible need for longer term engagements (extensions or more phases). Neither of the two projects under the climate programme – FishAdapt and Benguela Current Fisheries project – has any provision on how to integrate project activities in the strategies of the government partner departments.

EQ 3. Does FAO optimally engage partnerships that leverage the effect of its work on climate action towards impact generation?

3.1. Is FAO's collaboration with its main (public and private) development partners (UN and others) effectively building on FAO's comparative strengths and weaknesses on climate change related areas?

Finding 21. In fisheries and aquaculture, FAO's comparative advantages are many and widely recognised: its knowledge and vast experience of the sector uniquely complements the climate change credentials of the other global actors. However, FAO is considered to be slow on the uptake in terms of strategizing its global position or using its sectoral strengths more effectively.

153. One question in the interviews that brought forth near-unanimous responses from both FAO and non-FAO respondents is relating to FAO's comparative advantages. The responses largely coincide with what FAO lists in the Strategy for Fisheries, Aquaculture and Climate Change (2011–2016) as its advantages for working on climate change, and include:
- i. The COFI is unique – perhaps in any sector – in terms of being the only global inter-governmental forum, where major international fisheries and aquaculture problems and issues are examined and recommendations addressed to governments, regional fishery bodies, NGOs, fishworkers, FAO and international community, periodically on a world-wide basis. COFI has also been used as a forum in which global agreements and non-binding instruments were negotiated.
 - ii. FAO's long experience of the fisheries and aquaculture, covering a wide range of issues and responsive to all emerging challenges and opportunities, supported by a huge

- workforce of technical experts, is unparalleled and complements the global climate change programmes with its sectoral expertise.
- iii. FAO's huge knowledge base, covering a vast amount of information, databases, guidance and experiences dating back several decades, remains most highly valued around the world, covering all important stakeholders – governments, research and academic bodies, development organisations, CSOs, community organisations and various sections within the communities.
 - iv. FAO's world-wide presence, with sufficiently decentralised regional and sub-regional offices spread over all corners of the world, with an active portfolio of projects and activities that keep it constantly in the forefront; this also translates into ability to work at different levels and forge a wide range of partnerships (global, regional, sub-regional, national, and community).
 - v. FAO's high credibility with national governments, its responsiveness to their needs and priorities, and the long relationships with the national ministries and departments characterised by mutual respect, puts it in a prominent position to inform and influence policies and legislations in a free, frank and easy atmosphere.
 - vi. FAO's focus on grassroots-level, community-based, efforts at developing innovative best practices to develop normative guidance gives it a unique insight into the community needs and aspirations, while also giving it a strong grassroots level constituency: few other global organisations so well recognised at the community level as FAO and its technical experts.
 - vii. FAO's ability to face challenges at different levels within the sector is supported by its convening role at various policy levels (i.e. COFI, Sub-Committees on Aquaculture and on Trade; Regional Fisheries Bodies, and ministerial-level and high-level FAO technical conferences); its role as an honest broker is considered to ensure better compliance.
154. Interviews also suggested that, despite its advantages, FAO is not always able to capitalise upon its strengths. It is suggested that, in Africa, despite FAO's longstanding experience and reputation for good work, partners are more willing to work with organisations with less coverage and experience in the sector, such as UNEP or INGOs, because of the long and cumbersome processes that affect FAO's work.
155. It has also been mentioned that, in its need to maintain its continued relevance, FAO might be venturing into new areas like climate change, without relating it more systematically to its core mandate and competencies, which puts it at a disadvantage in terms of suggesting effective sectoral responses.

Finding 22. FAO's partnerships at global, regional and national levels have contributed significant results. But the partnerships tend to be opportunistic and short-term, i.e., in pursuit of particular goals and objectives, rather than strategic in terms of providing the basis for promoting broader climate agendas systematically.

156. Partnerships formed a key component of FAO's strategy for fisheries, aquaculture and climate change from the beginning, a process that started with Global Partnership for Climate, Fisheries and Aquaculture (PaCFA) an informal grouping consisting of 20 international organizations and sector bodies which provided the initial impetus for mainstreaming climate actions.

157. The Strategy expected using the PaCFA platform to explore the possibility of developing major strategic partnerships with relevant organizations, which would be further strengthened by ongoing partnerships in the department's regular programmes and fieldwork. However, PaCFA has become less active over the years, owing largely to its key proponents moving on, though the linkages are reportedly still active in some cases.
158. All the same, FAO's work in the global forums involved partnerships with a range of international and regional organisations: ILO, IMO, the World Bank, UNESCO, UNFCCC Secretariat, NACA, BOBP-IGO, ICSF, the Pacific Community, and Conservation International are some of the organisations mentioned as having collaborated with FAO on climate and biodiversity programmes. The partnerships, as discussed, have been successful in terms of mainstreaming oceans, fisheries and aquaculture into the global climate change agendas.
159. FAO continues to forge links with regional fisheries bodies (RFBs), with regional economic councils (RECs) and with other regional bodies, involving the regional and subregional offices, but how much of the climate action dimension is actually reflected in these initiatives varies depending on the occasion.
160. One regional organisation in Southeast Asia discussed how the partnership with FAO – which is one of their main partners and key supporters for a long time – still remains an ad hoc arrangement, driven by random opportunities based on availability of funds for some purpose or another – rather than any institutional arrangement.
161. The partnerships are based on LOAs on case-by-case basis and, although the organisation has considerable technical expertise of working on different aspects of aquaculture (including climate smart technologies), its services are not utilised strategically in supporting the regional/national projects within the area.
162. The interview also covered FAO's work in organising a few conferences and workshops in collaboration with this organisation on climate-proofing strategies for aquaculture. Although several recommendations and suggestions for future work came out of the meetings, including a few proposals for effective climate actions (one involved the setting up of a regional platform for monitoring and evaluation of climate change in aquaculture and another involving developing seaweed farming into a climate change adaptation strategy), FAO couldn't follow up on the proposals.
163. One reason why the proposals didn't go forward is suggested as owing to all concerned FAO regional staff moving on or retiring soon afterwards so there was nobody within FAO who could follow up on the proposals.
164. FAO regional offices are involved in strategic – if informal – partnerships with other regional fisheries bodies and these influential relationships prove to have mutual benefits but, as mentioned, the frequent staff turnovers in FAO lead to such linkages being broken and having to be re-established all over again.
165. At the national level, FAO's partnerships overall focused on strengthening the sectoral networks and programmes, involving academic and research bodies, CSOs, and grassroots level organisations (Caribbean Network of Fisherfolk Organisations under CC4Fish; FishAdapt). Extra-sectoral bodies, especially private sector partnerships have received less attention, though some projects – CC4Fish – attempt to extend the scope of climate action to cover financing and insurance issues and try to forge links with relevant bodies.
166. Sometimes, the fact of the national ministries/departments being the 'project holders' reportedly works against FAO's ability to explore opportunities for new or more active collaborations.

167. The key areas for collaboration at the national level included many of the core functions of FAO: capacity strengthening, improved knowledge, improved access to information, testing of adaptation strategies, community vulnerability assessments, sea safety and disaster risk reduction (DRR) programmes, support to developing and strengthening community organisations, and social inclusion programmes.
168. The national level partnerships provide opportunities for mutual learning and for ensuring sustainability of the activities; on the other hand, the tendency to view the partners as intended only for service delivery, i.e., delivering the project's activities frequently at the community level, weakens the scope for more mutually beneficial partnerships.
169. In Myanmar, one of the partner-CSOs had considerable experience of working on fisheries co-management programmes that the FishAdapt project was promoting, its overall role was confined to that of service delivery involving community vulnerability assessments as required by the project.
170. In Benguela Current Fisheries project, the MTR found that while the project collaborated with universities in South Africa and Namibia for the implementation of certain activities, this collaboration did not take the form of strategic partnerships. The evaluation also noted the general lack of engagement and partnership with civil society organizations, not only as target groups but also and more importantly as implementation partners.

3.2. To what degree has FAO's collaboration with State partners or development/multi-lateral partners been effective in leveraging climate action at country and at global level?

Finding 23. FAO's climate mainstreaming in fisheries and aquaculture is still in early stages, and the results are not yet very visible. The size of the climate initiatives and their geographical spread in different parts of the world, together with the relatively minor significance attached to fisheries sector at the national level, constrain FAO's ability to show quicker and more significant results.

171. As a result of FAO's work, climate actions have found place in the fisheries and aquaculture agendas in some of the Member Nations where FAO climate action projects are currently – or in the past – operational; the considerable amount of effort that went into capacity development of the staff in the partner organisations and selected community participants in Member countries is expected to contribute towards more effective planning and implementation of climate actions in future.
172. There are frequently a few parallel climate initiatives at the Member Nation level, but FAO is among the very few organizations that work with the national fisheries bodies, which helps to bring an important sector into the climate change mainstream.
173. Collaboration with the fisheries ministries and departments reportedly works against FAO's ability to explore opportunities for better climate actions through more active (climate change-wise) bodies like the Ministry of Environment, on account of jurisdictional issues. Even if FAO's focus is fisheries and aquaculture, it is suggested that FAO needs a new strategy to work with a broader range of ministries and departments, to ensure better uptake of its policy advice.

3.3. Are new, innovative partnerships in support of SDG 13, (e.g. in financing, know-how and technologies, research, advocacy, etc.) being forged or adhered by FAO and are these showing concrete results?

Finding 24. FAO is trying out partnerships at different levels from global to national, and while some of them might be innovative (for instance, at the global forums), most the current partnerships tend to be along the conventional lines – i.e., ad hoc, need-based, short-term arrangements to ensure successful delivery of a project's results – rather than involving strategic efforts at partnerships that are mutually complementary and supportive, lead to longer term engagements beyond the project needs to ensure sustainable climate outcomes.

174. FAO's project-based approach – and its dependence on external funding – to its work is suggested as a constraint for entering into long-term engagements with organisations having complementary skills and which can take forward the agendas even after a project has ended.
175. The dependence on individual experts in fisheries and aquaculture, even where such support is institutionally available from other regional and national bodies, is suggested as failing to take advantage of existing knowledge base, weakening the long-term sustainability of the results, and missing an opportunity for partner institutional capacity building.

3.4. Is FAO using its internal implementation modalities to effectively address globally agreed climate action targets (in SDG 13 and the Paris Agreement) through sharing knowledge, best practices, and experiences as well as by adapting/replicating/scaling up climate change adaptation and mitigation technologies?

Finding 25. As most of its climate-related results still in early stages of development, and not appropriately mainstreamed across FAO's projects and developed into normative products, it is not possible to assess the scaling up and replicability impacts of FAO's climate actions.

176. Each project works as an end in itself – with few linkages across similar projects – the extent to which its outputs and outcomes can actually lead to wider replication and scaling up remains project-specific.
177. There are indications that some of the projects are showing results relevant at the level where they are implemented and also normatively – both in terms of specific strategies as well as providing a model for future interventions – but the extent to which such results are being assessed for their value in replication and scaling up as well as for their normative value is not clear.

Appendix 1. FAO fisheries & aquaculture projects with 100 percent climate change focus ongoing as of October 2019

	Project title	Source of funding	Budget (USD)	Project status	Project objective and expected outcomes
1	GCP/GLO/959/NOR Support member countries implement climate change adaptation measures in fisheries and aquaculture	Norway	868 489	??	Improved country capacity to develop and implement climate change adaptation plans and actions.
2	TCP/RLA/37XX Apoyo a la realización de la pre-COP en Costa Rica y la COP25 en Chile (Support to Pre-COP in Costa Rica and COP25 in Chile)	RP	200 000	??	Technical support to Costa Rica and Chile to prepare Pre-COP and COP25, to strengthen the capacities in key areas and in the implementation of prioritized actions to meet the goals agreed during the pre-COP and COP25.
3a	GCP/SFS/480/LDF Enhancing Climate Change Resilience in the Benguela Current Fisheries System (FSP - LDCF portion)	LDCF	1 700 000	Ongoing	To build resilience and reduce vulnerability of the Benguela Current marine fisheries systems to climate change through strengthened adaptive capacity and implementation of participatory and integrated adaptive strategies.
3b	GCP/SFS/480/SCF Enhancing Climate Change Resilience in the Benguela Current Fisheries System (SCCF portion - FSP)	SCCF	3 025 000	Ongoing	
4	TCP/GAM/3702/C2 TCPF: Project Preparation Grant for a GCF pipeline project on Climate Resilient Fishery Initiative for Livelihood Improvement in The Gambia	FAO	99 000	Preparation	To build resilience to the effects of climate change in fisheries and aquaculture managers through adaptation best practices.
5	GCP/MLW/053/LDF Building climate change resilience in the fisheries sector in Malawi (FSP)	LDCF	5 460 000	Ongoing	To improve Lake Malawi and coastal area community resilience to climate change.
6	GCP/BGD/055/LDF Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh	LDCF	5 425 114	Early stages	To address key barriers to effective adaptation to climate change in the fishery and aquaculture sector and build the resilience of the fishery sector through capacity development and policy reform.

7	GCP/CMB/038/LDF Climate Adaptation and Resilience in Cambodia's Coastal Fishery Dependent Communities (PPG)	LDCF	4 350 000**	Implementation yet to begin	Climate adaptation and resilience in Cambodia's coastal fishery dependent communities.
8	GCP/MYA/020/LDF FishAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Myanmar (FSP)	LDCF	6 000 000	Ongoing	To enable inland and coastal fishery and aquaculture stakeholders to adapt to climate change.
9	GCP/TIM/011/LDF IkanAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Timor-Leste (LDCF part) (PPG)	LDCF	2 649 726*	Implementation yet to begin	To formulate IkanAdapt.
10a	GCP/TIM/009/GFF IkanAdapt: Strengthening the adaptive capacity and resilience of fisheries and aquaculture-dependent livelihoods in Timor-Leste (GEF part) (PPG)	GEFTF	1 766 484*	Implementation yet to begin	
10b	GCP/SLC/202/SCF Climate Change Adaptation in the Eastern Caribbean Fisheries Sector (CC4Fish)	SCCF	5 460 000	Ongoing	To increase resilience and reduce vulnerability to climate change impacts in the eastern Caribbean fisheries sector.
11	GCP/CHI/039/SCF Strengthening the Adaptive Capacity to Climate Change in the Fisheries and Aquaculture Sector (FSP)	SCCF	2 500 000	Ongoing	To reduce vulnerability and increase the adaptive capacity to climate change in Chile's fisheries and aquaculture sector.
12	GCP/INT/262/EC ClimeFish - Co-creating a decision support framework to ensure sustainable fish production in Europe under CC	EU	119 539	??	Help ensure that the increase in seafood production comes in areas and for species where there is a potential for sustainable growth, given the expected developments in climate. Support sustainable fisheries, etc through effective forecasting, and develop management tools for adapting to climate change.

* https://www.thegef.org/sites/default/files/web-documents/10181_MFA_Timor_Leste_PIF.pdf** <https://iwlearn.net/resolveuid/29067a55-6154-4d50-8ded-c860ee1f5546>