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Investing in rural people

IFAD's Support to Livelihoods Involving Aquatic Resources from Small-scale Fisheries, Small-scale Aquaculture and Coastal Zones

Evaluation Synthesis

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Abbreviations and acronyms

COSOP	country strategic opportunities programme
CZR	coastal zone resources
ES	evaluation synthesis
FAO	Food and Agriculture Organization of the United Nations
IOE	Independent Office of Evaluation of IFAD
PDR	Project Design Report
SIDS	Small Island Developing States
SSA	small-scale aquaculture
SSFs	small-scale fisheries

Executive summary

I. Background

1. Globally, fisheries and aquaculture supply 17 per cent of the animal protein in people's diets. Even small quantities of fish in people's diets can have a significant positive impact on the nutritional status of poor consumers throughout the world. Some 2.5 per cent of the world's population are engaged to a greater or lesser extent in the aquatic sector. Small-scale fisheries (SSFs) and small-scale aquaculture (SSA) play a paramount role in global fish supply and provide vital supplements to the livelihoods of millions, by enhancing food and nutrition security and the incomes of rural households. SSFs employ more than 90 per cent of the world's capture fishers and fish workers, and were estimated in 2014 to total approximately 140 million people, about half of whom are women. In addition, there are around 18 million fish farmers who are fully, partly or occasionally employed. Of these, between 70 and 80 per cent are considered small-scale.

2. IFAD Member Countries, recognizing the relevance of aquatic resources to the entire mandate of the organization, have manifested growing interest in IFAD's work with people whose livelihoods depend on aquatic resources from fisheries, aquaculture and coastal zones. The Independent Office of Evaluation of IFAD (IOE) identified a critical knowledge gap in these areas that could be suitably filled with a synthesis of the available evaluative evidence. The Executive Board of IFAD approved this evaluation synthesis at its 119th session in December 2016, to be conducted during the 2017/2018 biennium.

3. The main purposes of the synthesis were to: (i) assess the extent of IFAD's work – including loans, grants, policies, strategies and guidelines – in support of livelihoods involving aquatic resources from SSFs, SSA and coastal zones; and (ii) generate findings and document lessons, good practices and challenges that can inform the design and implementation of ongoing and future IFAD policies, strategies and investments in these sectors.

4. The evidentiary basis of the evaluation synthesis (ES) consisted of all IFAD evaluations conducted between 2009 and early 2018 that included work carried out by IFAD in support of poor rural people whose livelihoods depend fully or partly on aquatic resources from SSFs (from both marine and freshwater fisheries), SSA and coastal zone resources. The ES also included evaluations of projects in coastal zones that entailed purposeful alternative livelihoods to those based on aquatic resources. In addition, in consideration of the diversity across the portfolio in regard to the attention dedicated to aquatic resources, the ES classified projects as having a high or low focus on the sectors under analysis.

5. In consideration of Management's expressed interest in the ES providing information on the magnitude of IFAD's work addressing these domains, the synthesis included: (i) the analysis of data related to all IFAD-supported projects addressing SSFs, SSA and coastal zone resources (CZR), including in Small Island Developing States (SIDS), from the first intervention in these sectors, approved in 1979, up to December 2017; (ii) a comparison of data in regard to all loans approved in support of SIDS in aquatic and non-aquatic sectors; and (iii) an assessment of the design of non-evaluated projects addressing SSFs, SSA or CZR that were part of a string of interventions in the same country, in order to analyse long-time trends in IFAD's approach.

6. The approach paper for the synthesis proposed the following assumption underpinning the core thrust of IFAD's work in these sectors so far: "By supporting the sustainable use and management of aquatic resources and scaling up its experiences to the policy level, IFAD has contributed to reducing poverty and strengthening Food and Nutrition Security, through: improving the livelihoods of

the rural poor; introducing sustainable natural resources management and adaptation practices to climate change; promoting socially equitable access to, and distribution of, benefits achieved."

II. Main findings

Corporate level

7. IFAD strategic frameworks and sectoral policies have given limited explicit attention to aquatic resources and to the rural poor who depend on them. The strongest corporate commitment in this respect was the 2014 paper on SIDS. Up to the time of the writing of this synthesis, this had received limited follow-up and very limited impacts in terms of the number of projects supported in SIDS that addressed aquatic resources. The synthesis was unable to identify whether the lack of subsequent consistent actions was due to a lack of requests in this area by IFAD members, or to limited responsiveness from the Fund to such requests.

8. More visibility in IFAD's national strategies. In contrast, the strategic planning process at country level for the preparation of the country strategic opportunities programmes (COSOPs) has been quite systematic in integrating aquatic resources and the communities depending on them. This was confirmed by the finding that three quarters of projects that included aquatic resources within their programmatic thrust had been approved within the framework of COSOPs. The fact that a quarter of projects of relevance to aquatic resources were approved, despite the relevant COSOP not envisaging interventions in this domain, suggests that IFAD has been flexible in allocating its resources where they were needed.

9. IFAD is typically not a large player in the aquatic resource sectors. The portfolio analysis shows that with the exception of four SIDS, IFAD has thus far not been an important player in the fisheries and aquaculture sectors, or in coastal zone management, in any Member State. The reasons for this appear to be multiple and are likely to include factors outside IFAD's control. From within IFAD, however, the two main factors appeared to be the limited attention to aquatic resources at the corporate strategic level, and the limited in-house expertise in these areas.

10. The same factors appear to have influenced the perceived need within IFAD for knowledge products that address aquatic resources. The good quality of the products testifies to the professional competence of those engaged in the sectors. Nevertheless, the low numbers, and the limited cross-referencing to aquatic resources in other products, are also clear indicators of the precious few human resources available "in-house" in these domains.

11. In-house staff resources facilitate collaboration. Collaboration between IFAD and some of its partners has increased since IFAD has had a full-time staff member dedicated to aquaculture and fisheries. There is room for improving the existing partnerships with organizations that have a high comparative advantage on technical issues, such as Food and Agriculture Organization of the United Nations (FAO) and WorldFish, through more systematic and timely planning in the early stages of project conceptualization.

12. Lack of a strategic vision in the use of grants. IFAD's grants addressing aquatic resources have been quite diverse. The most frequent topics have been: aquaculture development; support to capacity development of both governmental and non-governmental stakeholders; and applied research. Based on the limited information available on the results of the completed projects, it emerged that the dissemination of initiatives did not seem to be informed by a strategy underpinning the use of resources – not even with FAO – although individual interventions may have been relevant or useful.

Subsector analysis: Aquaculture

13. This is the largest subsector in terms of project numbers, though the majority of interventions (72 per cent) was assessed by the ES as having a “low focus” on aquatic resources. This might also be a consequence of the nature of aquaculture, which is often considered more similar to agriculture than to capture fisheries. This often led to interventions where aquaculture was an “add-on” activity and ended up receiving less attention than land-based development activities, including in terms of dedicated and specialized technical capacity in project management units and supervision missions.

14. In addition, with the notable exception of work in Bangladesh focusing on the farming of small edible fish (mola) and on the regulated management of inland water basins (beels), it appears that IFAD has not as yet developed a specific technical and methodological approach concerning pro-poor aquaculture development. The recently approved Kenya Aquaculture Business Development Programme, which foresees an articulate set of components and objectives based on a clear theory of change, might be an important innovation in this respect.

Subsector analysis: Coastal zone resources

15. This heading includes very diverse projects that were designed and implemented with very little sense that the geographical areas of intervention were special zones straddling different ecosystems and cultures that required diverse strategies.

16. The post-tsunami projects – an exception within IFAD’s portfolio – were also included in this group. According to their evaluations, these projects had limited effectiveness, with the exception of the project in the Maldives which – thanks to the high flexibility built into its design – eventually led to positive outcomes for the fishing industry in the country.

17. The more recent cohort of projects, currently ongoing or just completed, was strongly focused on adaptation to climate change and on the development of resilience among the coastal populations. However, at design stage only the Indonesia Coastal Community Development Project and the Philippines Fisheries, Coastal Resources and Livelihood Project explicitly aimed at introducing alternative livelihoods for fishing communities in order to reduce the pressure on aquatic resources.

Subsector analysis: Freshwater fisheries

18. Freshwater fisheries are typically neglected by most organizations when dealing with aquatic resources, and IFAD has been no exception in this regard. This group is the smallest in terms of number of projects, with a slight majority (55 per cent) assessed by the ES as having a “low focus” on aquatic resources.

19. Few positive outcomes emerged in these projects. In the case of multi-sector projects, the freshwater components became invisible early on in project implementation, and when the focus of the intervention was on freshwater fisheries, the projects were poorly designed and implemented. The design of the recently initiated Republic of the Congo Inland Fisheries and Aquaculture Project (PD-PAC) appears to be based on better knowledge of the local context and related challenges and potentials. If efforts to refocus the Artisanal Fisheries and Aquaculture Project as a pilot project in Angola are successful, both of these projects may pave the way for a new generation of more effective IFAD-supported interventions in this subsector.

Subsector analysis: Marine fisheries

20. This subsector had the largest share of “high focus” projects, at 62 per cent, and IFAD developed longer-term engagements on marine fisheries in specific countries – for instance Eritrea, Mozambique and Yemen – than on other subsectors. This might be related to the establishment of relatively strong and long-lasting

partnerships with the respective national organizations, despite the high turnover of country programme managers.

21. Projects in marine fisheries appear to have been more effective than those in other subsectors. A possible explanation for this is that sectoral experts were involved in both the design and the implementation, which was not always the case for aquaculture or freshwater fisheries, and this contributed to improved performance. Also, the higher share of “high focus” projects indicates a concentration of resources and attention in support of the development of livelihoods that depend on aquatic resources.

Subsector analysis: Small Island Developing States

22. Projects implemented in SIDS were highly heterogeneous; only a third of these had a high focus on aquatic resources. In addition, very few had been evaluated by the time of the ES, and evidence about performance was in general thin.

23. The extent to which the IFAD approach paper for SIDS was implemented in terms of attention and resources allocated to fisheries and aquaculture – identified as the highest priority sector – varied across regions. Only in the Indian Ocean SIDS were aquatic resources the focus of the majority of projects, whereas in other SIDS, most projects approved were in the domain of agricultural development.

Key findings by evaluation criterion

24. High relevance to IFAD and national policies. All of the evaluations of projects of relevance to aquatic resources concluded that the interventions had been relevant to the policies and plans of national governments and to IFAD’s strategic frameworks and policies. In the case of the non-evaluated projects, while taking into account that Project Design Reports (PDRs) logically stressed the relevance of projects to national and IFAD policies, the synthesis concluded that all projects were indeed relevant at these levels.

25. Mixed relevance with regards to poverty alleviation, as targeted participants were not always from the poorest sections of the rural population. While all projects aimed to reduce poverty, their relevance to the needs of those sections of the rural poor who depended on aquatic resources for their livelihoods was sometimes questionable; projects addressing fisheries or aquaculture did not always target IFAD’s traditional target groups (i.e. the poorer sections of rural populations). Also, when attempts were made to address the poorest segments of society, the approaches adopted were not always conducive to long-term poverty alleviation. For example, the assumption that temporary labour opportunities in infrastructure building were sufficient per se to raise people out of poverty, was not substantiated by the results. At a minimum, this should have been part of a broader intervention addressing capacity development, rural microfinance and alternative livelihoods. It is thus arguable that a focus on enhancing food security and nutrition or on strengthening access to services would have been more effective and sustainable. In fact, this underlies recent work on the “mola” fishery in Bangladesh, which has provided opportunities for very poor households to improve their food and nutrition security and enhance their income-generating opportunities.

26. Detailed targeting with limited follow-up and monitoring. Targeting was often highly detailed in PDRs and based on a mix of geographic, poverty and self-selection criteria. Women and women-headed households were typically among the priority groups, the exception being some of the earliest projects. Attention to youth as a specific target group varied over time, and only recently has this group become a standard element in project targeting. In general, no systematic monitoring data were produced by projects which would allow a judgement of how successful targeting had been.

27. No evidence of trickle-down effects. This synthesis did not find evaluative evidence of the expected positive trickle-down effects of small-scale fisheries and aquaculture on poverty reduction. Reliance on aquatic resources to generate incomes has tended to favour those who already had at least some productive resources. The tendency for interventions to bypass the very poor was reinforced by changes at the corporate level that increasingly focused on the "active poor" and on value chain development. These approaches assumed that supporting small-scale entrepreneurs would lead to rising aggregate incomes, increased economic activity and rising demand for aquatic products, which would eventually benefit poorer households and groups through employment creation. However, the mechanisms and conditions through which these dynamics could work were not well articulated at design nor during implementation. At the same time, opportunities were missed to complement capture fisheries or aquaculture development activities through more integrated development approaches – such as the introduction of more sustainable production and processing practices and strengthening of food and nutrition security, or individual and social empowerment.

28. Limited contextual analysis at design. Positive overall relevance was often undermined by a lack of sufficient analysis of the local context at the design stage and an overestimation of the local capacity for implementation. This led to overly simplistic assumptions about local dynamics and issues, and inappropriate solutions to perceived problems. This also occurred in the context of projects that included value chain approaches and demanded more complicated interventions and more sophisticated understandings of the local context, where the contextual analysis should have taken all trade-offs involved into account. At the same time, implementation was not supported by more and/or more specific technical assistance and/or by closer supervision.

29. Complicated project design. Projects consisting of different components that were not well integrated into the overall framework faced important challenges during implementation. This was particularly apparent where a component or subset of activities addressing aquatic resources was "added on" to a broader intervention – this being a frequent feature for projects addressing freshwater fisheries and aquaculture. In these cases, more often than not the work focused on aquatic resources was less successful, or was simply dropped during project implementation.

30. When major infrastructure and rural financial services components were to be established as essential elements in triggering progress towards poverty reduction goals, their implementation typically absorbed much of the financial, temporal and organizational resources allocated to projects. Their completion was often achieved very late in the project's schedule, when there was no time left for supporting aquatic producers and processors to take advantage of project investments.

31. Mixed results in terms of the effectiveness and impacts of projects of relevance to aquatic resources. In projects ranked as having a "high focus" on aquatic resources, activities aimed at improving fishing techniques and post-harvest processes through capacity development of stakeholders were typically carried out and led to some positive results. In addition, roads and markets were built and in general people largely benefitted from the roads. The use of ice for better conservation of fish on board and on land spread slowly, partly as a result of IFAD-supported projects; over time, challenges to the production and distribution of ice decreased. Less evidence is available in terms of results from improved processing and marketing and in improving access for fishers and fishmongers to suitable rural financial services.

32. Limited data about impact on poverty. Overall, data on the impact of IFAD's activities on poverty in the aquatic sector are remarkably limited, and where they do exist there are questions as to reliability. While there are cases where project

benefits did accrue to the poorest of the poor, for instance among beel fishers in Bangladesh and certain groups of marine capture fishers in Mozambique, in others the benefits were often of a temporary nature – for instance, employment in infrastructure construction. More generally, those who benefited were those who had sufficient assets to take advantage of IFAD's investments.

33. Similarly, there is mixed evidence available on sustainability. Evaluations suggest that a key factor in ensuring sustainability was political ownership and support, but unfortunately, this support was not available to all projects. In addition, sustainability in overly ambitious projects was often undermined by the delays and disconnects in implementing key components – for example, infrastructure and rural financial services – which undermined the potential sustainability of the components that were more "centred on aquatic resources".

34. The limited information available did not allow an understanding of how projects could contribute to empowering women and to improving gender relations. Efforts to develop the capacity of fishmongers in terms of processing techniques, marketing skills or access to financial services, appear to have generated some positive effects for some women, but even in these cases evidence was only anecdotal. In general it appeared that project activities tended to reinforce existing gender roles and that little was achieved in transforming gender relations.

35. Attention to natural resource management was variable over time. Earlier projects largely focused on improving production – either catches from capture fisheries or output from aquaculture – with little attention being paid to environmental sustainability aspects. However, in SIDS sustainable aquatic resource management was an element in project design in all relevant projects, with only one exception.

36. Progressive integration of climate change adaptation. IFAD projects paid increasing attention to various issues, including sustainable management and monitoring of fisheries based on stock assessments, the implications of climate change for stocks, and the consequences of coastal zone erosion on the livelihoods of the poor. The synthesis recognizes the improvements in this respect in project design as positive, although too little evaluative evidence was available on the results and impacts to draw any conclusion.

III. Conclusions

37. The general conclusion of the synthesis is that IFAD's performance has been highly variable over time and across countries and subsectors. Overall, IFAD has devoted limited attention to the aquatic sector, in particular in terms of expertise dedicated to project design and supervision, with the result that the potential of this sector to contribute to food and nutritional security and to poverty alleviation among the rural poor has not been realized.

38. At the corporate level, in general aquatic resources have been subsumed under agriculture, with the result that the sectoral specificities have been ignored. Although COSOPs included the aquatic sectors within the scope of their programmes, there has been a tendency in project design and implementation for aquatic elements to be treated as marginal. There was insufficient technical expertise, and the relevant components were either unsuccessful or even dropped.

39. Available evidence indicates that the poorest households have frequently not been the primary beneficiaries, and that IFAD interventions have frequently tended to favour those whose pre-existing assets and entitlements allow them to take advantage of IFAD's investments. Evaluations suggests that there is no guarantee that "trickle-down mechanisms" from value chain development approaches will necessarily benefit the poor, unless these are embedded in explicit and careful frameworks that include measures for reaching out to the poorer sections of the

population. Long-term support from donors and other partners is also necessary in order to ensure that sustainable benefits accrue to the poorer rural groups. Furthermore, more attention should be given to emerging issues such as safety at sea and the “Decent Work Agenda”, which have direct relevance for the livelihoods of all poor people.

40. Most projects incorporated gender equality and women’s empowerment, and over time the approaches have become increasingly more sophisticated. While in some cases this has led to a degree of female empowerment and transformation of gender roles and relationships, interventions have often reinforced pre-existing gender stereotypes and divisions of labour. Women play a central role in fish handling, processing and marketing, and they are frequently prominent as the financial managers of small-scale aquatic ventures; however, gender equality was not a central focus of IFAD’s interventions.

41. Natural resource management has grown in importance during the period under review. Increasing attention has been paid to the sustainable management of fishery resources, including aquaculture, and to problems and issues arising from global climate change, especially in coastal areas. However, the evidence so far suggests that insufficient attention has been given to sustainable management of aquatic resources, and to the challenges that people whose livelihoods depend on aquatic resources will increasingly face because of climate change.

42. Despite these weaknesses, there have been some notable successes in IFAD’s impact on poverty and livelihoods through addressing aquatic resources. These have occurred when IFAD has committed itself to long-term engagement in fisheries and aquaculture and has supported innovations, policy dialogue and institutional development, in addition to direct work at the community level taking into account the needs of the poorer sections of the rural population whose livelihoods depend on aquatic resources.

43. The recruitment of a full-time IFAD aquaculture and fisheries expert in early 2015 represents a significant improvement, and increases the credibility of the Fund’s commitment to this area of work, by bringing consistency and focus to a stream of work whose potential has not as yet been realized. In-house expertise also increases the capacity of the Fund to collaborate effectively and enter partnerships with organizations that have greater technical resources in this domain. This is a significant step forward, one that may pave the way to increasing the opportunities for IFAD to engage with Member States in these domains and develop appropriate responses to their demands.

44. Finally, several Sustainable Development Goals address issues related to aquatic resources; IFAD’s formal commitment to support implementation of Agenda 2030 is an additional reason to sustain support to these sectors.

IV. Lessons learned

45. The ES identified a number of lessons learned that should be integrated into the future work of IFAD in addressing aquatic resources. These include:

- Technical expertise in aquatic resource management is necessary;
- Adequate technical and management attention must be paid to the specificities of aquatic resources issues when components addressing the latter are part of multi-sector projects;
- The development of national norms and policies is important for aquatic resource management;
- IFAD’s long-term commitment to the sector in each particular country is necessary in order to achieve sustainable results;

- Contextual analysis – in particular of the upstream and downstream environments – must be adequate when proposing value chain development based on aquatic resources;
- Monitoring must be effective and must capture indicators that measure progress in livelihoods that depend on aquatic resources; and
- Information should be shared among successful projects.

V. Recommendations

46. Recommendation 1: Following the demands of its Member States, IFAD should maintain a sustained engagement in interventions of relevance to aquatic resources, to benefit both producers and consumers of aquatic products, because of the importance of these resources to the livelihoods of large numbers of IFAD's primary target population. However, this engagement requires a significant improvement in the quality of projects designed in these sectors, and in the technical support provided to project implementation teams during implementation.

47. Recommendation 2: IFAD should develop more partnerships with those organizations that have specific technical expertise in the aquatic resource sector, to ensure that their technical knowledge can be efficiently harnessed to improve the quality of IFAD's portfolio in terms of design, implementation and supervision of its projects of relevance to aquatic resources. Resources from IFAD's grants portfolio could be usefully employed to this effect.

48. Recommendation 3: IFAD should preferably address aquatic resource management through projects focused mostly or fully on the aquatic sector/subsectors. This will enable the tackling – in an appropriate manner and with the required specialized knowledge and expertise – of all of the complexities and trade-offs attached to livelihoods that depend on aquatic resources, ranging from poverty reduction and sustainable management of the resources, to access to markets and value chain development.

49. Recommendation 4: IFAD's interventions on aquatic resources should better address and incorporate various social development issues, including gender equality, inclusion of youth, decent work aspects, and the rights and obligations of beneficiaries and other stakeholders, defined in legal terms – all to ensure the long-term sustainability of both incomes and resources.

50. Recommendation 5: IFAD's interventions on aquatic resources should more consistently address and incorporate the environmental sustainability of the resource base and the need to enhance resilience to climate change of those among its target population whose livelihoods depend on aquatic resources. In this respect, the recent and ongoing initiatives that introduced alternative livelihoods for fishing communities should be a source of lessons learned for the entire Fund.

Main Report

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Annexes

IFAD's support to livelihoods involving aquatic resources from Small-scale Fisheries, Small-scale Aquaculture and Coastal Zones
Evaluation synthesis

VI. Introduction

A. Background

1. The role of Evaluation Syntheses (ES). Evaluation Syntheses are considered in the IFAD Evaluation Policy (2011)[1] and in the second edition of the Evaluation Manual of IFAD (2015)[2] and aim at strengthening the use of evaluations and the feedback loop into the programme and project cycle, by taking stock of findings and drawing lessons from previous independent IOE evaluations. Thus, an ES primarily promotes learning and collective reflection, and contributes to improving strategic and operational performance.

2. The Evaluation Synthesis on aquatic resources.[3] Fisheries and aquaculture supply 17 percent of global animal protein in people's diets and support the livelihoods of some 2.5 percent of the world's population. Even small quantities of fish in people's diet can have a significant positive impact on the nutritional status of poor consumers across the world. Fish can play a major role in correcting unbalanced diets and, through substitution, in countering obesity. In some Small Island Developing States (SIDS)[4] and in a few other countries, fish contributes, or exceeds, 50 percent of total animal protein intake.

3. World per capita fish supply reached 20 kg in 2014 and preliminary estimates for 2017 indicate a new record high of 20.5 kg, thanks to vigorous growth in aquaculture, which now provides over 50 percent of all fish for human consumption, to a slight improvement in the state of certain fish stocks through better fisheries management and to greater attention being paid to post-harvest losses and bycatch problems. At the same time, increased harvests and production, compounded by the effects of climate changes on natural resource availability and the competition between aquaculture and agriculture for water and land, makes sustainable management of natural resources in both capture fisheries and aquaculture increasingly important.

4. Small-scale Fisheries (SSF) and Small-scale Aquaculture (SSA) play a paramount role in global fish supply and provide vital supplements to the livelihoods of millions, by enhancing food and nutrition security and incomes of rural households.[5] The most recent available data indicate that in 2016, there were approximately 40 million capture fishers world-wide, engaged in fishing either on a full-time or part-time basis. SSF employ more than 90 percent of the world's capture fishers and fish workers, about half of whom are women. With regards to SSA, the same source indicates approximately 19 million fish farmers globally, again fully, partly or occasionally employed. About 70-80 percent of these are

[1] http://www.ifad.org/pub/policy/oe.pdf
[2] http://www.ifad.org/evaluation/process_methodology/doc/manual.pdf.
[3] Unless otherwise specified, the source of data in this section is: FAO 2018. The State of World Fisheries and Aquaculture 2018. Meeting the Sustainable Development Goals, Rome, at http://www.fao.org/documents/card/en/c/I9540EN.
[4] Small Island Developing States were recognized as a special case both for their environment and development at the 1992 United Nations Conference on Environment and Development (UNCED), and in the Agenda 21 approved at the same Conference. The status of Small Island Development State is self-declared, hence the ES used the list issued by the Department of Economic and Social Affairs of the Small Island Developing States UN Members, at https://sustainabledevelopment.un.org/topics/sids/list, accessed on 23 September 2017. See Annex I.
[5] See Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication at http://www.fao.org/3/a-i4356e.pdf

considered small-scale.[6] Issues such as Safety at Sea, Decent Work, traditional gender divisions of labour in SSF, are all of the utmost importance to those whose livelihoods depend on fisheries resources and need to be taken into account whenever engaging in these sectors.

5. The features briefly referred to above show the relevance of aquatic and coastal zone resources, and of small-scale fisheries and aquaculture including those in SIDS, to the entire mandate of IFAD, including its long-term commitment to investing in rural people, gender equality, sustainable natural resources management, and more recently, to the more recent areas of focus of the Fund such as nutrition, food systems, youth and climate change adaptation. Furthermore, IFAD committed to contribute to the implementation of Agenda 2030, wherein Sustainable Development Goals 2, 5, 8, 12 and 14 address several challenges faced by the world's poor whose livelihoods depend on aquatic resources.

6. In the light of the above,[7] IFAD Member Countries have manifested growing interest in IFAD's work with people whose livelihoods depend on aquatic resources from fisheries, aquaculture and coastal zones. Upon their request, IOE identified a critical knowledge gap in these areas of the Fund's work that could be suitably filled with a synthesis of the available evaluative evidence. Thus, the Executive Board of IFAD approved this evaluation synthesis at its 119th session of December 2016, to be conducted during the biennium 2017/18.

B. Objectives, definitions and analytical framework

Objectives

7. The Approach Paper established two main objectives for the Synthesis: (i) assessing the extent of IFAD's work, including loans, grants, policies, strategies and guidelines, in support of livelihoods involving aquatic resources from Small-scale Fisheries, Small-scale Aquaculture and Coastal Zones; and (ii) generating findings and documenting lessons, good practices and challenges, that can inform the design and implementation of ongoing and future IFAD's policies, strategies and investments in these sectors.

8. Given the potential magnitude of the breadth of work to be addressed by the Synthesis, the search for appropriate and workable definitions of the three themes was one of the first steps in the work. There are no clear-cut definitions, as discussed below.

Definitions

9. With regards to Small-scale Fisheries, the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (VGSSF)[8] acknowledges that due to the great diversity of small-scale fisheries across the world, "there is no single, agreed definition of the subsector". Its key characteristics include, among others: a strong anchor in the local communities, traditions and values; historic links to adjacent fisheries resources and a way of life that depends on the fisheries resources, accessed and harvested through customary practices; frequent seasonal migratory patterns and remoteness of communities; low investment in fishing gears. Frequently, small-scale fishing communities are among the poorest population groups in most countries, have less access to social services and infrastructures and tend to be marginalized.

[6] FAO, Enhancing the contribution of small-scale aquaculture to food security, poverty alleviation and socio-economic development, 2013: http://www.fao.org/3/a-i3118e.pdf

[7] The global context and trends in SSF and SSA are discussed in more detail in Section 3 of the report.

[8] The Guidelines were endorsed by the 31st session of the FAO-hosted Committee on Fisheries (COFI) in 2014 as a complement to the Code of Conduct for Responsible Fisheries (CCRF) and is the only international normative instrument in this subsector so far. See http://www.fao.org/3/a-i4356e.pd.

10. Small-scale aquaculture is defined in the FAO Term Portal as an “Aquaculture system with a small annual production (max one tonne per unit and 10 tonnes total), made of one or more small production units; family or communally run; low to moderate input levels and limited external labour. Own food supply may be a motive.”[9] Typically, small-scale aquaculture can be carried out virtually wherever there is sufficient water available to be diverted from other uses such as drinking water for human and animals, domestic use and irrigation. Mariculture, i.e. aquaculture in sea-waters, provides opportunities to sea-riverine communities to engage in productive activities closer to the shore and within a more controlled environment.

11. Moreover, two key features characterise aquatic resources: aquatic products are highly perishable and require a minimum capacity of post-harvest handling and processing, to extend their ‘shelf-life’; and some aquatic products obtain high prices on international markets. These together entail that most initiatives addressing aquatic resources as ‘products’ has to include elements of access to markets and value chain development.

12. Coastal Zone Resources are more complex to define. The Integrated Coastal Zone Management (ICZM) approach defines the coastal zone as “a broad management zone - one extending from the coastal hinterlands and lowlands (the “dry side”) to the coastal waters and the deep sea (the “wet side”)”.10 On a similar line, the National Oceanic and Atmospheric Administration of the United States (NOAA) Shoreline Website11 provides a legal definition for Coastal Zone as “the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each and in proximity to the shorelines of the several coastal states, and includes islands, transitional and inter-tidal areas, salt marshes, wetlands, and beaches”.

13. Communities whose livelihoods depend, fully or partly, on SSF are often located in the coastal zones of marine or fresh-water bodies, or wetlands,12 and partly draw their livelihoods from other locally-available aquatic resources, including among others, use of mangroves; farming and harvesting of aquatic resources, e.g. weeds and aquatic animals, for food, fibre, construction works, handicrafts; and small-scale tourism facilities. The emerging concept of ‘Reef to ridge’ in ecosystem management addresses more clearly the interconnectedness across adjacent watershed, coastal and marine spaces; and how human activities and natural events on any part of these impact on all others.13 This entails analysing how development activities upland or close to coastal zones, e.g. urbanization, large-scale fishing operations and aquaculture, tourism, agriculture, energy, mining, industry and infrastructure developments, impact on fisheries and non-fish Coastal Zone Resources (CZRs), and hence on the livelihoods of people depending on the latter.

14. A particular case of high dependence on fisheries, both SSF and semi/industrial fisheries, and on CZRs, consists of the populations of Small Island Developing States (SIDS). In some islands, the available land mass for activities other than fisheries and the exploitation of other aquatic resources is minimal, and competition for land use is acute, including for settlements. Ecosystems in SIDS

[9] See Small-scale aquaculture at http://www.fao.org/faoterm/en/. It is assumed that a unit corresponds to a pond, and a small-scale aquaculture farm should not have more than ten ponds in total.
[10] Clark, J. 1992. Integrated management of coastal zones, Food and Agriculture Organization of the United Nations, Rome, at http://www.fao.org/docrep/003/T0Bangladesh FEDEC8E/T0Bangladesh FEDEC8E00.htm#TOC.
[11] National Oceanic and Atmospheric Administration of the USA (NOAA), at https://shoreline.noaa.gov/index.html
[12] Exceptions to this exist in a number of countries, where seasonal fishers from inland or upland areas establish temporary settlements in the coastal zones.
[13] Adapted from ICRAF (World Agroforestry Centre) and IUCN, Ridge to Reef initiative, at https://www.worldagroforestry.org/ and https://www.iucn.org/theme/water/our-work/curent-projects/ridge-reef, accessed on 9 February 2018.

are also particularly and increasingly fragile with respect to climate change and hazards.

Scope of the Synthesis

15. The evidential basis of the ES were all IFAD evaluations conducted between 2009 and early 2018, that included work carried out by IFAD in support of poor rural people whose livelihoods depend, fully or partly, on aquatic resources from Small-scale Fisheries, both from marine and inland fisheries, Small-scale Aquaculture, and Coastal Zone Resources. The ES also included evaluations of projects in coastal zones that entailed purposeful alternative livelihoods from aquatic resources. This led to a total of 53 evaluations (see below) which together evaluated 57 projects.[14]

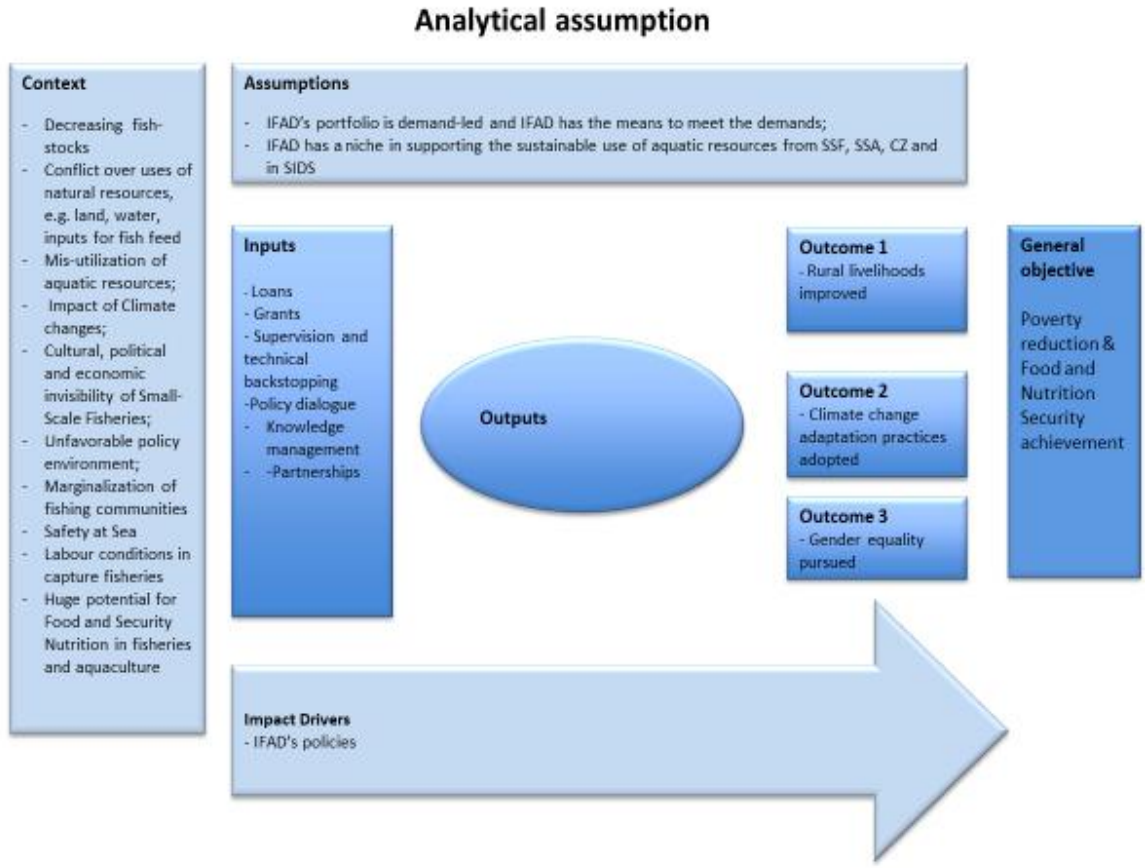
16. Furthermore, to meet a specific request of IFAD's management for the ES to provide an overview of the magnitude of IFAD's work addressing these domains, the ES also included a mapping and quantitative analysis of all IFAD-supported projects related to SSF, SSA, CZR, including in SIDS, approved since 1979, when the first IFAD-supported intervention addressing any of these sectors was endorsed by the Board, until December 2017. This led to a list of 98 loans and associated grants; and 15 self-standing grants.[15]

Criteria

17. In the absence of a corporate unifying Theory of Change for IFAD's work in aquatic resources, the Approach Paper for the Synthesis proposed the following assumption underpinning the core thrust of IFAD's work in these sectors so far: "By supporting the sustainable use and management of aquatic resources and scaling up its experiences to the policy level, IFAD has contributed to reducing poverty and strengthening Food and Nutrition Security, through: improving the livelihoods of the rural poor; introducing sustainable natural resources management and adaptation practices to climate change; promoting socially equitable access to, and distribution of, benefits achieved." This is represented in Figure 1 below.

[14] See Annex II for the entire list.
[15] See Annexes III and IV for both lists

Figure 1
The Analytical Assumption for the Evaluation Synthesis



18. The assumption guided the analysis, in addition to the following IOE criteria:

(a) Relevance of projects to IFAD's Strategic Frameworks, national policies and strategies, and population's needs; this will also include the analysis of projects' design and targeting approaches;

(b) Effectiveness of projects in achieving the established objectives;

(c) Rural Poverty Impact, and its four domains, namely household income and net assets, human and social capital and empowerment, food security and nutrition and productivity, and institutions and policies;

(d) Sustainability of projects' achievements in the long term;

(e) Gender equality and women's empowerment;

(f) Results and impacts on Natural Resources Management;

(g) Integration of Climate Change mitigation and adaptation measures.

Key questions/issues

19. The ES was also guided by a list of overarching and secondary issues and questions,[16] identified through a preliminary analysis of documents and a round of interviews held in IFAD headquarters with key stakeholders. The overarching issues were:

[16] See Annex V for the complete list of issues and questions.

- IFAD's overall performance in supporting livelihoods that include aquatic resources from SSF, SSA, Coastal Zones and SIDS, including with regards to financial investment, compared to the organization's performance in other sectors.
- The extent to which IFAD's mandate and focus on livelihoods, poverty reduction, food and nutrition security and sustainable natural resources management, have informed the organization's interventions in supporting livelihoods that include aquatic resources from SSF, SSA, Coastal Zones and SIDS.
- IFAD's typical targeting strategy and beneficiaries' profile in the organization's interventions supporting livelihoods that include aquatic resources from SSF, SSA, CZ and in SIDS and integrating youth and women in these interventions.
- IFAD's role and niche in supporting livelihoods that include aquatic resources from SSF, SSA, Coastal Zones and SIDS, considering the potential for partnerships with other organizations.

Stakeholders

20. The primary stakeholders for the Synthesis are IFAD management and staff, particularly in the Programme Management Department, and Member Countries through the Evaluation Committee. Many of the issues addressed are of concern to a wider audience including other multilateral and bilateral development agencies that engage in these sectors.

Methods and tools

21. As already mentioned, the Synthesis was meant to fill an information gap about the work by the Fund in support of livelihoods depending on aquatic resources. This led the team to dedicate significant time to mapping the relevant interventions and the sub-sectors addressed in each.

22. In line with IOE 2015 Evaluation Manual guidance, the Synthesis mostly relies on the qualitative analysis of available evidence and information found in IFAD's evaluations. This is complemented by qualitative and quantitative analysis of information canvassed from a broader set of sources, through a desk review of documents and reports, interviews and discussions with stakeholders and key informants, and portfolio corporate data.17 The findings that emerged from each instrument were triangulated to achieve conclusions and identify lessons for the future.

23. Categories of projects. The ES classified all the projects identified into five categories, that reflect the main thrust of the interventions or their location:

- Aquaculture;
- Coastal Zone Resources;
- Freshwater capture fisheries;
- Marine capture fisheries; and
- SIDS.

24. Some interventions addressed two categories, typically freshwater capture fisheries and aquaculture; or marine and freshwater capture fisheries. These projects were assigned to the category receiving the largest budget share, or in one single case (Venezuela PROSANESU), the category of the ultimate goal of the project. The four IFAD-supported interventions assisting in the recovery from the December 2004

[17] Furthermore, the ES team members had all taken part in IOE evaluations of aquatic resources-relevant projects; the first-hand experience from those evaluations provided the useful insights that are typically generated by country visits.

Indian Ocean Tsunami were classified within the Coastal Zone Resources category due to the special characteristics of these interventions and their location.[18]

25. Through the project reviews, it emerged that the extent to which projects addressed aquatic resources varied significantly, with projects fully focused, for example, on supporting communities in improving their livelihoods through a more sustainable use of aquatic resources, and projects that barely mentioned these resources although planned to be implemented in coastal areas. However, budget data could not be used as an indicator of 'intensity' given the structure of IFAD's budgeting by generic rubrics rather than components or results. It was thus decided to rank each project as having a High or a Low focus on aquatic resources, based on the level of attention in project's objectives and activities to these resources. This was done by the same team member for all projects, to minimize differences in individual bias.

26. Qualitative analysis. The relevant evaluations included: 18 Project Completion Report Validations; 17 Country (Strategy and) Programme Evaluations; 12 Project evaluations at completion or ex-post;[19] 3 Interim and 3 Impact Evaluations. The ES also assessed, for both evaluated and non-evaluated projects, the available project documents and reports. The analysis consisted of extracting, compiling and comparing information from this set of documents project by project, to respond to the key issues and questions mentioned above and draw common findings and conclusions. For multi-sectoral projects, the ES team dedicated particular attention to identify in the evaluations the information, be this findings, conclusions or recommendations, that was pertinent to activities addressing aquatic resources and their ancillary activities, e.g. feeder roads for landing sites and literacy courses for women fishmongers.

27. The ES also conducted analysis of the relevance and design of non-evaluated projects addressing SSF, SSA or CZR, that were part of a series of similar projects in a given country, to assess long-time trends in IFAD's approach to the same sector in the same national context.

28. In addition, the ES reviewed IFAD Strategic Frameworks since 2007, as well as relevant strategies, guidelines and technical papers, to identify the policy and technical framework of IFAD's work in these areas. Furthermore, with the purpose of framing IFAD's performance in the broader global context of SSF, SSA and CZR, the ES also analysed a small sample of relevant thematic and regional evaluation reports by other multilateral and bilateral development agencies, as well as recent normative, scientific and development literature on related issues.[20]

29. Interviews. Semi-structured interviews and discussions, following check-lists developed by the ES team, were held with IFAD staff who had engaged in the relevant domains, including Division Directors, Country Programme Managers and Country Directors, technical staff and consultants. Interviews were also carried out with senior staff from multilateral and bilateral organizations that work in the relevant areas. [21]

30. Data analysis. This included:

- The analysis of portfolio loans and grants, including total, IFAD and co-financing budgets, by categories, regional division and over time; comparison with IFAD overall portfolio;

[18] One of the Post-Tsunami recovery projects was implemented in the Maldives, one of the SIDS; nevertheless, the specific nature of this project led the Synthesis team to treat it together with the other three, in the Coastal Zone Resources section.
[19] Project Performance Assessments/ Evaluations or Project Completion Evaluations.
[20] See Bibliography in Annex VI.
[21] The list of people interviewed is in Annex VII.

- The analysis of the extent of integration of references to aquatic resources in both context and programmatic sections of Country Strategy and Opportunity Papers/Programmes (COSOPs) in countries where relevant projects were approved;
- The comparative analysis of all loans approved in support of SIDS in other sectors of intervention. Given the limited range of alternative livelihoods to fisheries and exploitation of CZRs, the ES analysed the amount of resources that IFAD allocated to aquatic and non-aquatic resources in these countries;
- The comparative analysis of the evaluation ratings for the aquatic resources-relevant projects against the IFAD Annual Report on Results and Impact database (ARRI) since 2009,[22] and control through the F test for equivalence of variance for both the populations; in addition, the results were analysed through a two-tailed T test, based on equality of variance or lack of it.

C. Limitations

31. The ES faced one major constraint: the variable and often limited evaluative evidence available on the performance of IFAD projects addressing SSF, SSA and CZR. The main reason for this was that in many projects, especially in the aquaculture and CZR categories, the 'aquatic element' played a minor role and related work achieved limited results. This led to many CPE/CSPEs and PCRVs giving limited attention to the aquatic component of a project because of their limited visibility in the projects themselves. For example, no evaluation included a discussion of the reasons for the failure of aquatic resources-relevant project components; and out of 53 evaluations, only 12 included recommendations addressing SSF, SSA or CZRs. In one case, Madagascar, only the Agreement at Completion Point proposed that IFAD engage in the fisheries sector in future. Thus, despite 58 per cent of the relevant projects having been evaluated, robust evaluative evidence for the Synthesis was only available from about half of these.

32. A second limitation was the difficulty in tracing information about grants approvals and related documents, and in some cases, documents concerning loans and COSOPs. This was due to two different factors: in IFAD, documentation about grants is not available on the same corporate platforms as loans and is dispersed across various divisions and units; and the universe of projects taken into consideration by the ES included a sizable number of projects, 23 per cent of the entire universe assessed, approved before 1997, for which very few documents were available on-line.

D. Report structure

33. The report is organized in seven chapters. After this introduction, it presents the global context for SSF, SSA and CZR, the trends and the relevant commitments under the Agenda 2030 (chapter II). Chapter III presents an overview of other organizations' work on aquatic resources, and relevant findings from their evaluations. Chapter IV includes the analysis of IFAD policies and corporate and national strategies on aquatic resources, as well as the quantitative analysis of the committed financial resources; it also includes a section on the non-lending work by IFAD in the relevant domains. Chapters V presents the qualitative analysis of the portfolio, structured by criteria, on marine and freshwater SSF and SSA, CZR and SIDS. This is followed by a chapter including three country case studies (Chapter VI). Finally, Chapter VII concludes by drawing on the evidence discussed in earlier sections and proposes few key recommendations to IFAD.

[22] The ARRI database was used at the net of the ratings for the aquatic resources-relevant projects.

VII. Global context on aquatic resources[23]

34. Global fish production As of 2016, total global fish catch stood at around 171 million tonnes and came from three sources: marine capture fisheries, freshwater capture fisheries, and aquaculture, including mariculture. Over the last 25 years, there has been a remarkable shift in the pattern of production. Whilst the marine capture fishery has been fairly static at around 80 million tonnes per year, both freshwater capture fisheries and aquaculture have steadily expanded. Growth in the case of freshwater capture fisheries, indicated to be around 80 per cent, has mostly been due to improved monitoring and reporting data on catches, with the total catch still only under 12 million tonnes. On the other hand, aquaculture has seen a growth of 600 per cent. Table 1 below synthesises these figures.

Table 1
Global fish production over time, in million tonnes

Type of fisheries/Year	1990	2000	2010	2016
Marine Capture fisheries	78.2	85.0	76.7	79.3
Freshwater capture fisheries	6.4	8.6	11.0	11.6
Aquaculture	13.1	23.4	59.0	80.0
Total	97.7	126.0	146.7	170.9

Source: FAO Yearbook of Fishery and Aquaculture Statistics 2016

35. Fish production is geographically highly concentrated. China is the major player in all three types of fish production, being responsible for 60 per cent of the output from aquaculture and 19 per cent of marine capture fisheries. Other major producers in marine capture fisheries include Indonesia, the United States of America, the Russian Federation and Japan. In freshwater capture fisheries, the main producers are China, India and Bangladesh, whilst China, India and Indonesia dominate aquaculture.

36. Different types of fisheries. Unfortunately, there are no clear data on the relative importance of the different forms of technology and scale of operations in different aquatic production sub-sectors. In marine capture fishing, ‘small-scale fishers’ or ‘artisanal fishers’ are frequently defined as those using fishing crafts, both mechanised and non-mechanised, which are less than 12 metres long. In 2014 these comprised around 4.1 million of the total global fleet of 4.6 million boats. Around 90 per cent of those directly employed in capture fisheries appear to be small-scale fishers rather than be employed in ‘industrial’ fishing. Also, as far as aquaculture is concerned, a distinction has to be made between large-scale commercial undertakings usually run by commercial companies, and smaller farms run by households or small communities. In this sub-sector, around 90 per cent of those directly involved in aquaculture are small-scale producers, as are probably all of those involved in freshwater fisheries.

37. Fisheries employ 190 million people globally. It was estimated that in 2016 around 40.3 million people were directly engaged in capture fisheries and 19.3 million in aquaculture. Of these, around 20 million were involved on a full-time basis, the rest being either part time or occasional fishers combining fishing with other livelihood options.[24] Taking into account the importance of the artisanal and

[23] The statistical data and information on fisheries and aquaculture in this chapter, unless otherwise specified, was extracted from The State of World Fisheries and Aquaculture 2018. Meeting the Sustainable Development Goals FAO, Rome, 2018, at http://www.fao.org/documents/card/en/c/I9540EN.

[24] Fishing, especially marine capture fishing, is often highly seasonal, hence the widespread involvement in it on a part-time basis, as most fishers combine fishing with other activities during the non-fishing season. Alternatively, fishers stay

small-scale production models around 50 million people are directly involved in small-scale fisheries and aquaculture, with 18 million of these on a full-time basis. The great majority of fishers – 80 per cent in capture fisheries and 96 per cent in aquaculture – was in Asia.

38. There is also a considerable number of people involved in ancillary services. On the production side, these involve boat builders, engine repairers, net menders, and suppliers of inputs into aquaculture. Even more people are involved in post-harvest activities. Unless the fish is for consumption within the producer's household or is sold direct to consumers, a structure must be in place to ensure the fish reaches its final consumer in a consumable state. This involves various forms of traders and fish processors involved in activities such as drying, salting, icing, freezing, producing fish oil. In addition, there are often complex credit systems in place to finance production and post-harvest activities. It is estimated that around 140 million people are employed in these areas which indicates a total of around 190 million being involved in the entire small-scale fisheries and aquaculture sectors and value chains.[25]

39. Gender-based division of labour. Marine capture fisheries are dominated by men, although there are cases where women are directly involved either at sea, in lagoons and lakes and along the littoral. There is a higher proportion of women involved in freshwater fisheries and aquaculture, especially in very small-scale aquaculture where production is for domestic use. Overall, it is estimated that 14 per cent of primary producers are women. But women play a much more prominent role in post-harvest activities, where they represent virtually 100 per cent of processors and sellers of small-scale fisheries and aquaculture produce. The result is that there is probably a 50/50 balance in the industry as whole, combined with a marked gender division of labour.[26]

40. Poverty levels vary widely amongst small-scale fishers and aquaculture producers. Although some groups of artisanal fishers are relatively prosperous, others are not so successful. In some cases, especially in marine capture fisheries, this is due to remoteness or lack of access to markets or to inputs. Often there are highly asymmetric relations with traders to whom they are in debt, and who control access to markets. Competition over declining fishery resources also threatens small-scale producers' livelihoods. At the same time, entry into capture fishing at its most basic level is relatively easy, which provides a limited safety net for the poorest in coastal communities. In aquaculture, entry into even small-scale commercial production requires resources which are beyond the poorest and for them, aquaculture is limited to exploiting small water bodies such as ditches and extremely small ponds in Bangladesh.

41. Role of fish and aquatic products in nutrition. In many countries aquatic products are the main source of animal protein as well as a major source of other nutrients. Over the last fifty years fish production has risen faster than the world population. This, combined with an increase in the amount of fish destined for human consumption – up from 67 per cent to 88 per cent since the 1980s - has resulted in global per capita consumption rising from 9.9 kg in 1960s to over 20 kg in 2015. Much of this increase comes from the expansion of aquaculture, better post-harvest processes, and a reduction in waste. Even so, fish consumption in

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in fishing through the year but migrate on a seasonal basis. In the case of freshwater fisheries, households typically engage in both fishing and agriculture.

[25] FAO 2016. The State of the World Fisheries and Aquaculture: Contributing to Food Security and Nutrition for All. FAO, Rome. Available at http://www.fao.org/3/a-i5555e.pdf

[26] World Bank. 2008. Small-scale capture fisheries : a global overview with emphasis on developing countries. PROFISH series. Washington DC; World Bank. Available at http://documents.worldbank.org/curated/en/878431468326711572/Small-scale-capture-fisheries-a-global-overview-with-emphasis-on-developing-countries A. Lentisco and R.V. Lee 2015. 'A Review of Women's Access to Fish in Small-Scale Fisheries'. FAO Fisheries and Aquaculture Circular No 1098. FAO, Rome. Available at http://www.fao.org/3/a-i4884e.pdf.

many parts of the developing world remains relatively low, especially in Low Income Food Deficit countries where fish consumption is estimated to be under 8 kg per capita compared with 25 kg in developed countries.

42. Fish most traded product globally. The last fifty years has also seen a steady growth in international trade in aquatic products: in terms of value it has risen by over 500 per cent, and by almost 250 per cent in terms of volume. A significant segment of that trade consists of high value products, for instance prawns and tuna, being exported from countries in the Global South to OECD countries. But there is also a substantial international trade in low value fish, for instance from Europe to Africa, consisting mainly of small pelagic species.

43. Aquatic resources and coastal zones. Many, probably most, activities involved in aquatic production are based in coastal zones, conventionally defined as areas of land within 100 km of the shore. These areas are often extremely complex both ecologically and in economic terms. Most major cities in the developing world are sited on the coast; in general, they are more densely populated than inland areas, and they tend to be richer than inland areas. This complexity both provides opportunities for aquatic producers - for instance serving local markets and collecting such products as sea grass and sea weeds - but also creates problems especially over land use. This has been particularly marked in the case of commercial shrimp farms in coastal areas and other commercial developments which threaten the ecosystems crucial to the maintenance of local fishing. These areas are also the most exposed to the negative impacts of climate change: rises in sea levels, frequency of storms and growing unpredictability of weather and climate.

44. Small Island Development States (SIDS) can be seen as a subset of coastal zones. Besides the problems of climate change, these states face a series of challenges ranging from the decline of staple crops (e.g. sugar) to issues in regulating the large ocean areas for which they are responsible. In most SIDS, marine capture fishing is an important element of the economy and in some, such as the Seychelles and the Maldives, fish and fish products are major exports. But at the same time, artisanal fishing is often marginalised to the needs of the industrial fishing fleets and other on-island developments.

45. The sector presently faces a series of major challenges. These include:

- Sustainable management of marine resources. Most fisheries are under pressure from over-exploitation and means must be found to manage fisheries in such a way that yields are sustainable. This can involve a series of strategies including more effective regulation of the fishery, creating alternative sources of income generation and better use of existing resources.
- Climate change. This threatens various aspects of the aquatic industry. Rises in sea temperatures will affect the distribution of species. More frequent extreme climatic events often affect coastal and fishing communities. A rise in sea level is likely to have a major destructive impact on coastal areas, especially coastal zones up to 10 metres above sea level. This will impact on all activities in this area as well as on the ecosystem, particularly mangroves. The potential impact on freshwater fisheries and inland aquaculture is less clear although changing rainfall patterns and temperatures will have an impact.
- Poverty and nutrition. Despite major advances, many fishers remain impoverished, and this reduces their ability to approach fishing in a sustainable manner. The challenge is to ensure that they benefit from improvements in the industry as a whole. But at the same time, given the strategic role of fish in many national diets, this has to be coupled with ensuring that poor consumers can access aquatic products.
- Decent jobs and safety at sea. Fishing remains one of the most dangerous activities in the world, work conditions are often poor, risks are high and incomes

often unpredictable. Although progress has been made in these areas there is still much to do.

- Gender relations. Although women make up at least 50 per cent of the workforce in the aquatic sector, they tend to be excluded from decision making processes and their contributions are frequently underestimated. Furthermore, many of the negative aspects of livelihoods dependent on this sector are born disproportionately by women.
- Pollution is a growing issue. 'Marine litter' affects economics, ecosystems, animal welfare and human health worldwide and is increasingly seen as an area which must be addressed;
- The HIV/AIDS pandemic has severely affected fishing communities in some regions of the world.

Key points

- Aquatic resources are highly important for the food and nutrition security of large numbers of poor people and for the nutrition of everyone rich and poor.
- Aquatic resources are the largest traded commodity at global level, and more than half of this comes from aquaculture. The aquaculture and fisheries industries employ approximately 200 million people world-wide.
- The sector faces major challenges, including sustainability of wild fisheries that are threatened by over-capture, pollution and climate change. Fishing communities are often among the poorest and fishing remains one of the most dangerous jobs in the world. Women have a traditional role in capture fisheries in the post-harvest steps, which however is only occasionally recognized.

VIII. Overview of other organizations' work on aquatic resources

46. This section briefly presents the focus of the work on aquatic resources of a few multilateral and bilateral agencies that are known for their interest in aquatic resources, as well as the key findings of a few of their relevant evaluations. The selection of agencies was based on the long-standing collaboration of multilateral agencies with IFAD, and on the reputation and record of particular bilateral agencies in this field. The ES is well aware that IFAD has collaborated with several other agencies on aquatic resources, including among others the European Commission, GIZ, OFID, Spanish Fund, but due to time-constraints, this section does not aim to be exhaustive.

A. Multilateral agencies

47. The African Development Bank hosts the Fisheries Transparency Initiative (FiTI), a global initiative that complements and supports other national, regional and global efforts to achieve responsible fisheries governance, and increase transparency and participation in fisheries governance for the benefit of a more sustainable management of marine fisheries. AfDB also hosts the African Natural Resources Centre (ANRC), which intends to advise Regional Member Countries on carefully selected aspects of policy formulation and implementation concerning natural resources management including fisheries.[27] In addition, AfDB has financed investment projects in countries such as Angola, Gabon, Madagascar, Uganda, and Sao Tome and Principe. At the regional level, it has supported the Maritime Communication Network on Lake Victoria and, with the South African Development Community, monitoring, control and surveillance of illegal fisheries.

48. The Asian Development Bank dedicated 1.2 per cent of its cumulative lending to the fisheries sector between 1968 and 2005. An evaluation of the corporate fisheries policy found that the sector had not performed well compared to the agriculture and natural resources sector. As of 2005, ADB had no in-house experts on fisheries and the evaluation in 2006 stated that "The limited internal expertise can affect the quality and performance of ADB's fisheries-related portfolio". In the marine fisheries subsector, reasons for project failure ranged from inappropriate project design, poor design of fishing vessels, inadequate fisheries resource/stock assessment during project preparation and lack of beneficiary participation. Similar factors were behind the low ratings of the aquaculture projects. Recommendations included:

- Developing strategic partnerships with international institutions with expertise in the fishery sector to compensate for the lack of internal expertise;
- Integrating fisheries into broader rural development approaches to promote sustainable livelihood opportunities, create alternative employment, safeguard the environment, protect biodiversity, and promote ecosystem-based management, conservation, and integrated coastal resource management;
- Reclassifying ADB's assistance to aquaculture and include it under agriculture sector development.

49. The Food and Agriculture Organization of the United Nations (FAO) is the UN agency that has been working for the longest in the fields of fisheries and aquaculture. The organization hosts the Committee on Fisheries (COFI), the only global body that deliberates on the sector as a whole through its biennial meetings on fisheries and aquaculture. FAO was a key player in the preparation and negotiation process that led to the adoption of the Code of Conduct for Responsible

[27] African Natural Resource Center, Strategy 2015-20: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/African_Natural_Resources_Center%E2%80%99s_Strategy_for_2015-2020.pdf

Fisheries (CCRF) by FAO Members in 1995.[28] The CCRF is owned by the 192 member states of FAO, COFI and the FAO Secretariat and represents the over-arching reference point for FAO and its members in dealing with fisheries and aquaculture. In more recent times, FAO has pro-actively supported the global process leading to COFI's endorsement at its 31st session in 2014 of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (VGSSF), a complement to the CCRF. FAO also was an important contributor, together with IFAD, WFP and other stakeholders, to the 'Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security' (VGGT), motivated by the World Committee on Food Security (CFS).[29] In addition, FAO is the repository of world statistics on fisheries and aquaculture, supports and/or manages a number of regional fisheries bodies and organizations, and publishes the biennial "State of World Fisheries and Aquaculture" (SOFIA), the leading publication covering these sectors.

50. In 2012, the FAO Office of Evaluation published an evaluation of the Organization's work supporting the implementation of the CCRF. The report concluded that "FAO's performance has been highly commendable and the quality of its work consistently high", although the Fisheries and Aquaculture Department had "fallen well short of its potential" in terms of strategic vision, outreach capacity, articulation between normative and operational work including Capacity Development, and insufficient attention to the "human dimensions which are so critical to implementation".

51. Over time, the same Office conducted several evaluations of fisheries and aquaculture related projects and programmes. Of these, two are relevant to this Synthesis. First, an evaluation of FAO's programmes in the Caribbean[30] found that work addressing fisheries had been of limited scope compared to opportunities and need, considering that small-scale fishers manage most of the fisheries in the sub-region and require support to their operations for achieving sustainable livelihoods. The report also noted that Caribbean farmers are aging and that support for value chain development, including processing and commercialisation, which is more attractive to the young, is needed to revitalise the sector. Second, the evaluation of the VGGT[31] found that governance of fishery (and forestry) tenure had received less attention than land tenure at country level, and that more awareness-raising work at the local level was required for the implementation of the Guidelines.

52. The Global Environment Facility (GEF) is the largest funding mechanism for multi-country collaboration on water and oceans with 156 GEF recipient countries and 24 non-recipient countries working together to manage their transboundary water resources.[32] Countries participating in GEF International Waters (IW) projects have negotiated and agreed on numerous regional cooperation frameworks, treaties, or protocols, ranging from cooperation on shared freshwater resources to agreements on marine resources. Since its establishment in 1991, through its International Waters focal area, the GEF invested US$160 million in coastal and marine fisheries, leveraging roughly US$1 billion in funding from other partners, all disbursed through the Marine Waters Programme. The Programme includes the following focus area: Areas Beyond National Jurisdiction; Coastal Fisheries; Large Marine Ecosystems, including Coastal Zone Management, Fisheries, and Nutrient

[28] Evaluation of FAO's support to the implementation of the Code of Conduct for Responsible Fisheries, FAO Office of Evaluation, June 2012, at http://www.fao.org/documents/card/en/c/ac43b559-ec04-43f3-aa01-ace43b255d3b
[29] Ibid.
[30] Evaluation of FAO's contribution to Members of the Organization of Eastern Caribbean States (OECS) and Barbados 2010-2015, FAO Office of Evaluation, 2016, http://www.fao.org/documents/card/en/c/3d9d294b-894a-417e-9bfd-26da2e703796
[31] Final Evaluation of the Global Programme to Support the Implementation of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (2012 – 2016) http://www.fao.org/3/BD722/bd722.pdf
[32] GEF Web site, https://www.thegef.org/topics/international-waters, accessed on 3 April 2018.

Reduction (coastal pollution); Shipping; and Small Island Developing States, which includes Adaptation to Climate Change and 'Ridge to Reef' approaches.

53. A 2016 GEF Office of Evaluation's Study of the International Waters portfolio showed that the marine waters portfolio was significantly larger than the freshwater portfolio, as a "consequence of a spontaneous growth of the portfolio in directions where the interests of countries and of agencies coincided, and where trans-boundary tensions were less severe."[33] The study considered that the prevalence of marine fisheries projects mirrored the alarming trends of increasing overfishing and destruction of marine biodiversity, with many continental shelf fisheries already beyond recovery, and increasing pressure on oceanic living resources.

54. The Study assessed 74 per cent of the projects in the International Waters domain as being satisfactory, with marine interventions performing slightly better than freshwater interventions, possibly due to the greater complexity of transboundary management issues in freshwater projects.

55. The World Bank hosts the Global Partnership on Fisheries known as 'PROFISH', which is a programming and funding partnership between key fishery and aquaculture sector donors, international financial institutions, developing countries, stakeholder organizations, and international agencies. PROFISH has received financial and in-kind support from the UK, Iceland, France, New Zealand, Norway, Finland, Japan, USA, FAO and the World Bank. The fisheries sector is handled by the Environment and Natural Resources practice. The World Bank's active portfolio in fisheries and aquaculture, as of 2017, was estimated to be US$ 1 billion.[34] The Environment Strategy (2012-22) makes numerous references to fisheries in the context of conservation, importance for livelihoods, climate change adaptation, improved governance of commons, pollution and biodiversity among other things.[35]

56. A World Bank evaluation of two complementary projects in Africa, assessed as unsatisfactory, identified the need for actions at central and local level to operationalize co-management,[36] and the need for rigorous feasibility studies and full-funding for alternative Income-Generating Activities to enable projects to be effective and divert people out of fishing.[37] A cluster evaluation of its programme for the Pacific Island Countries identified fisheries, tourism, and agribusiness as the most promising areas for private sector development, although it recognized that the situation differed across countries.[38]

57. WorldFish is the focal institution for fisheries and aquaculture in the Consultative Group for International Agricultural Research (CGIAR) system. Its 2017-22 Strategy lays out three research programmes: sustainable aquaculture, resilient small-scale fisheries and value chains and nutrition.[39] Reducing poverty through sustainable improved production and use of aquatic resources is at the core of the research programmes. These include improving fish breeds, fish feed and health; increasing the resilience of coastal fisheries and integrating fisheries within

[33] GEF Independent Office of Evaluation, International Waters Focal Area Study 2016, at http://www.gefieo.org/evaluations/international-waters-iw-focal-area-study-2016
[34] Ocean Fisheries and Coastal Communities, World Bank: http://www.worldbank.org/en/topic/environment/brief/oceans accessed on 13th February 2018.
[35] The World Bank Group, http://documents.worldbank.org/curated/en/314021468323995788/Toward-a-green-clean-and-resilient-world-for-all-a-World-Bank-Group-environment-strategy-2012-2022
[36] Co-management aims at creating systems where all relevant stakeholders, particularly the State and fishers, are actively involved in drawing up and implementing management plans for aquatic resources.
[37] World Bank, Project Performance Assessment Report, Senegal, Integrated Marine and Coastal Resources Management Project (Credit No. 3998-Se) Sustainable Management of Fish Resources Project (Credit No. 4545-Se). Available at http://ieg.worldbankgroup.org/sites/default/files/Data/reports/Senegal_Marine_Fish_Resources_PPAR.pdf.
[38] World Bank, Cluster Country Program Evaluation on Small States Pacific Island Countries Program Evaluation (FY05–15), Vol 1 and 2. Available at http://documents.worldbank.org/curated/en/485891475064557163/Cluster-country-program-evaluation-on-small-states-Pacific-Island-countries-program-evaluation-FY05-15.
[39] WorldFish Strategy 2017–2022, at http://pubs.iclarm.net/resource_centre/WorldFish-Strategy-2017-2022.pdf

multifunctional landscape and regional food systems, and increasing the availability, accessibility and consumption of nutrient-rich fish by poor consumers, with particular emphasis on women and children in the first 1,000 days of life. The Strategy identifies eight focus countries in Asia and Africa.

B. Bilateral agencies[40]

58. The Icelandic International Development Agency (ICEIDA) was dismantled in 2015 and its functions were subsumed into the Ministry of Foreign Affairs. The focus of its work remained the three sub-Saharan countries of Malawi, Mozambique and Uganda, building upon what it considers to be its domestic comparative advantage, namely geothermal energy, sustainable fisheries and gender equality.[41] Fisheries is a target theme and artisanal fishers are one of the target groups in the Uganda and Mozambique country programmes. In Mozambique it takes a programmatic approach to the fisheries sector in collaboration with other donors, e.g. Norway.

59. The Japan International Cooperation Agency has fisheries as one of its 20 thematic issues and within it, emphasizes three target areas: Fisheries Resource Management and Ecosystem Conservation; Aquaculture Development; and Fishery Value Chain Development. In its 2017 annual report,[42] fisheries as a sector was combined with agriculture and forestry. The total financing for the three domains through technical cooperation and grants was in the order of US$ 302 million.[43] The organization had focused its work in fisheries in the Maldives, in the Caribbean and in Morocco. In addition, it had worked in coastal area protection in Indonesia and in the Pacific Small Island States of Vanuatu, Palau and Solomon Islands.

60. The Norwegian Agency for Development Cooperation (NORAD) includes its sub-programme Fish for Development (FfD) within one of its eight thematic areas, Climate Change and Environment. The FfD programme addresses: i) Research and development, which includes sharing existing knowledge in Norwegian institutions with developing countries and vocational training; ii) Business development, focusing on sustainable and financially sound businesses, e.g. aquaculture; and iii) Resource management and legislation, which addresses policy dialogue and legislative work. As of November 2017, FfD was operational in Ghana, Myanmar and Colombia.[44]

C. Synthesis of findings

61. The evidence available shows that the resources that multilateral and bilateral agencies dedicate to aquatic resources vary considerably, and no common pattern could be identified in this respect.

62. With one exception, all the selected organizations couch their strategies and interventions that address aquatic resources within the frameworks of sustainable natural resources management and climate change. The African Development Bank and the World Bank have focused their efforts on aquatic resources on supporting partnerships and knowledge platforms, whereas the Asian Development Bank has virtually withdrawn from the sector.

[40] The analysis of bilateral agencies focused only on those that traditionally were known for significant engagement in the fisheries sector.
[41] OECD Development Cooperation peer review, Iceland: http://www.keepeek.com/Digital-Asset-Management/oecd/development/oecd-development-co-operation-peer-reviews-iceland-2017_9789264274334-en#page39
[42] JICA Annual Report 2017 at https://www.jica.go.jp/english/publications/reports/annual/2017/c8h0vm0000bws721-att/2017_all.pdf.
[43] The original figure is quoted in Japanese yen but has been converted to USD using UN exchange rates for February 2018.
[44] Fish for development, NORAD: https://www.norad.no/en/front/thematic-areas/climate-change-and-environment/fish-for-development/, as accessed on 13th February 2018.

63. Until relatively recently, most support was addressed to marine capture fisheries, and largely aimed at introducing sustainable fisheries management. Aquaculture has gained significant traction in the last decade or so, whereas support to freshwater fisheries has lagged behind, with very few exceptions.

64. One common element emerging from the evaluations is the need for specific attention to and expertise in the aquatic resources domain; and the GEF's study pointed to the alarming trends of increasing overfishing and destruction of marine biodiversity.

Key points

- The level of engagement in the management of aquatic and coastal zone resources, including in SIDS, varies considerably across multilateral and bilateral organizations, and in some cases, also over time;
- Marine fisheries tend to receive more attention than freshwater fisheries; whereas support to aquaculture is gaining increasing importance, following the requests of Member States.
- International development efforts that address aquatic resources are typically framed within strategies and programmes for the sustainable management of natural resources and climate change adaptation.

IX. Overview of IFAD's engagement with people whose livelihoods involve the utilisation of aquatic resources

A. IFAD's strategic approach

65. The three IFAD Strategic Frameworks approved since 2007 have typically subsumed the fisheries and aquaculture sectors within the broader agricultural sector, with few specific references to fisheries among natural resources, and no specific measures foreseen for work in these domains. Coastal areas were not mentioned in any of the three SFs. On a similar line, the current 2016-2025 Strategic Framework included among the Sustainable Development Goals to which IFAD will significantly contribute, in addition to SDGs 1 on poverty and 2 on hunger and food, those addressing gender inequality (5), inequality across countries (10), climate change (13) and sustainable use of terrestrial ecosystems (15). No mention was made of SDG 14, Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

66. With regards to SIDS, on the occasion of 2014 as the International Year for SIDS and as a contribution to the Third International Conference on Small Island Developing States (SIDS Conference) held in September 2014 in Apia, Samoa, IFAD developed, through an internal participatory process, the paper "IFAD's approach in Small Island Developing States".[45] In it, IFAD's focus was planned to be on: sustainable small-scale fisheries and aquaculture, including aquaculture and mariculture of nutrition-rich fish, and strengthening fish value chains; opportunities and employment for smallholder agriculture, in particular through value chain development; and environment and climate change, which involved addressing a complex set of objectives. Partnerships would be one of the tools for operationalizing the approach. The 2016-25 Strategic Framework also recognized the 'specific challenges and vulnerabilities' of SIDS and re-stated the same main areas for IFAD's interventions.

67. Relevant to the SIDS, IFAD approved in 2000 a Regional Strategic Opportunities Paper (RESOP) for the Eastern Caribbean, and in 2004, a Pacific Islands Countries: Sub-Regional Strategic Opportunities Paper (SRESOP). Both documents broadly followed the COSOP standard structure and analysed the context, identified lessons learned from previous IFAD's interventions and proposed priority sectors for intervention. Both adequately discussed the role of fisheries in the national economies and included fisheries as a sector for IFAD's intervention, though not as a priority. As discussed later in the report, the strategies did indeed inform the corporate portfolio in the two sub-regions, but the focus of IFAD's interventions was mostly on land-based development initiatives.

68. The Synthesis also canvassed a few other IFAD policies that could reasonably be expected to discuss aquatic resources, as follows:

- The IFAD Targeting Strategy, published in 2008, mentions 'fishers' once, in a box extracted from "Rural Poverty Reduction: IFAD's Role and Focus", June 2005;
- The IFAD Climate Change Strategy, published in 2010, makes virtually no reference to fisheries;
- The IFAD Gender equality and women's empowerment Policy, issued in 2012, deals with fisheries together with livestock, reflecting the then corporate association between the two sectors, and includes a box on 'Supporting women fishmongers';

[45] See https://www.ifad.org/documents/10180/127f9ca4-420f-41c9-a21d-5f511d6d01d0

- The IFAD Environment and Natural Resource Management Policy also published in 2012 makes extensive references to fisheries and marine resources, and some to aquaculture and freshwater resources. These are explicitly mentioned alongside other natural resources, and are also treated as separate and specific resources that have to be managed in a specific way. The policy also refers to coastal communities and resources;
- The IFAD Social, Environmental and Climate Assessment Procedures, published in 2014, and updated in 2017, includes a full section on aquatic resources, Guidance Statement 4 on Fisheries and Aquaculture, which discusses environmental and climate change issues potentially relevant to projects addressing fisheries and/or aquaculture and proposes mitigating measures.

69. At the national level, IFAD's strategic planning instruments have included over time the Country Strategy Notes (CSN), the Country Strategy and Opportunity Papers/Programmes, (COSOPs) and the Results-Based Country Strategy Opportunities Programmes (RB-COSOP). COSOPs became a standard practice in IFAD around mid-1990s, and the first available COSOP in a country which received an IFAD loan addressing aquatic resources was approved in 1996, for Cape Verde. For this reason, 1996 was taken as the reference year for the analysis of COSOPs.

70. The ES analysed the links and the information between the country-level strategies and relevant projects, at two levels. First, the extent to which COSOPs included references to aquatic resources in both context and programmatic level, in the 36 countries where IFAD approved projects addressing aquatic resources.[46] Second, the share of projects addressing aquatic resources that were approved in the context of COSOPs that included specific reference to aquatic resources.

71. Since 1996, IFAD has approved 43 COSOPs in 29 countries[47] where 64 projects (65 per cent) out of the 98 identified by the Synthesis as addressing aquatic resources, were also approved.[48] In eight countries, there were no COSOPs; in these,12 aquatic resources-relevant projects were approved. Among the 43 COSOPs, 37 (86 per cent) included a reference to aquatic resources in the context section of the document; and 30 (69 per cent) included a reference to aquatic resources in the programmatic section of the document. This led to 48 projects out of 64 (75 per cent) approved 'within the programmatic framework of a COSOP'. Table 2 below shows the number of relevant projects approved before and after a framing COSOP had been approved, in each of the countries where IFAD has supported aquatic-resources relevant projects. Also, it shows in which countries the COSOPs included references to aquatic resources in their programmatic sections.

[46] According to the Map of Positions for Regional Divisions January 15, 2018, currently IFAD has operations in 108 countries. Hence, over time IFAD has addressed aquatic resources in 33 per cent of the countries where it operates.
[47] In twelve countries, two or more COSOPs were approved and provided a framework reference for aquatic resources-relevant projects.
[48] These figures also include Grenada and two projects in this country, formulated and approved after IFAD Regional Strategic Opportunities Paper (RESOP) for the Eastern Caribbean was approved in 2000.

Table 2
COSOPs and aquatic-resources relevant projects

Country	*Aquatic resources-relevant projects approved before a framing COSOP*	*Aquatic resources-relevant projects approved after a framing COSOP*	*Aquatic resources in COSOP's programme*
Algeria	1	0	No
Angola	1	1	No
Bangladesh, 3 COSOPs	5	9	Yes
Benin, 2 COSOPs	2	1	Yes
Bosnia & Herzegovina	1	0	Yes
Cambodia, 2 COSOPs	1	1	No
Cape Verde	1	2	Yes
China, 2 COSOPs	2	2	Yes
Comoros	0	1	Yes
Congo, Republic of, 2 COSOPs	1	4	Yes
Democratic Republic of Congo (DRC)	0	3	Yes
Djibouti	0	2	Yes
Eritrea, 2 COSOPs	0	2	Yes
Grenada	1	2	Yes
Guinea-Bissau	0	2	No
India, 2 COSOPs	0	2	No
Indonesia	0	1	Yes
Kenya	0	1	No
Laos, 2 COSOPs	1	2	Yes
Maldives	6	0	n.a.
Mauritania	1	0	No
Mauritius	1	1	Yes
Mozambique, 3 COSOPs	1	5	Yes
Nepal	1	0	No
Nicaragua	0	1	No
Nigeria	1	2	No
Pakistan	0	1	Yes
Papua New Guinea	1	0	No
Philippines, 2 COSOPs	1	2	Yes
Sao Tome and Principe	2	1	Yes
Seychelles	1	0	Yes
Sri Lanka	0	2	Yes
Tanzania	1	0	No
Venezuela	0	1	Yes

Vietnam, 2 COSOPs	3	2	Yes
Yemen, 2 COSOPs	2	3	Yes
Total n. of projects	**39**	**59**	**not applicable**

Source: IFAD corporate systems

72. These data indicate that in countries where a COSOP had already been approved, the majority of the IFAD approved projects addressing aquatic or coastal area resources were formulated as part of an explicit and agreed strategy to engage in the fisheries and aquaculture sector in the concerned country. However, the way fisheries or aquaculture featured in the COSOP strategies and plans differed significantly across countries. For example, in Congo, Eritrea, Mozambique and the Philippines, fishers and fisheries were mentioned at the level of strategic objective. In others, for example Indonesia and Kenya, fisheries were mentioned in the programmatic section but only 'in passing' without clarifying how the sector would be addressed or targeted.

73. At the same time, 16 projects, representing 25 per cent of the aquatic resources-relevant interventions in countries where a COSOP already existed, were formulated outside the agreed programmatic framework between IFAD and the government. A number of factors may have contributed to this. First, some COSOPs were 'operational' for a decade or so, for example in Angola and Guinea Bissau, and over such a long period, it is reasonable to expect that negotiations between IFAD and a Government would lead to changing priorities.

74. Second, over time COSOPs have become more specific and substantive in laying out IFAD's intervention strategy in a country. Ten out of these 16 projects were approved between 1996 and 2007, when COSOPs were prepared through lighter processes, and were perceived to be less binding. One example of this was Nigeria, where the COSOP approved in 2001 identified river basins as a possible area of intervention in the context of natural resources management, but there was no specific mention of fisheries or aquaculture. One year later, the Community based Natural Resource Management Programme (CbNRMP) was approved, with the objective of improving livelihoods through sustainable resources management in the Niger river delta region states, where engagement with fisheries was obviously necessary. In this case, the geographical targeting strategy and the local context led to the inclusion of fisheries as a sector of intervention.

75. Even though COSOPs have become more specific, there is still room for flexibility. For instance, in the recent similar case occurred in Kenya, the Aquaculture Business Development Project was approved because it was developed around the value chain concept, which was one of the strategic thrusts of the 2013 COSOP, whereas aquaculture had not been included as a sector of intervention. Box 1 describes this case more in detail.

Box 1
Kenya Aquaculture Business Development Project

The Kenya ABDP was approved in 2017 and is the first IFAD's project targeting small-scale aquaculture producers in the country. It envisages involving existing and potential aquaculture producers to promote a viable and sustainable aquaculture industry and support services around it, through a public-private-producer partnerships (4Ps). The programme was approved under the aegis of the COSOP approved in 2013, which focuses on: a) Gender-responsive, climate-resilient and sustainable community-based natural resource management; b) Access of vulnerable rural women, men and youth in target areas to productivity-enhancing assets, technologies and services, and c) Value addition and marketing: Sustainable access of vulnerable rural women, men and young farmers, agro-pastoralists and entrepreneurs to improved post-production technologies and markets. It does not explicitly foresee IFAD interventions in either fisheries or aquaculture. The president's report justifies the project by linking the project's activities to the broader COSOP objective of engaging in value chains.

76. Third, fisheries and aquaculture activities were frequently 'added on' to broader interventions in the agriculture sector. This was the case in several projects and countries, ranging from Congo and DRC in Africa, to China and Laos in Asia, where fishery and aquaculture related activities were included in larger interventions with a broader focus. Whether a COSOP should have covered all 'potential areas of collaboration' in any country, could be a matter for discussion.

77. No in-house expertise on aquatic resources until 2015. The limited corporate attention to aquatic resources was also mirrored in the way IFAD at the corporate level assigned responsibility for the oversight function of project design and supervision in these domains. Although specialized consultants were part of project formulation and supervision teams, including many identified through the FAO Investment Centre (TCI), until the late 2000s these projects were assigned within the Policy and Technical Advisory Division, to the Water and Rural Infrastructures Team and subsequently to the Livestock expert. IFAD's first fisheries and aquaculture expert joined the organization in early 2015 due to the growth of the portfolio in fisheries and aquaculture and to the recognition that IFAD had to be more directly engaged to improve its performance in these sectors.

78. In this respect, the Synthesis team learnt, through a significant number of interviews in IFAD headquarters, that the typical professional competence of IFAD Country Programme Managers did not include fisheries and aquaculture management, with few notable exceptions. Perfectly competent CPMs in agriculture and any other traditional IFAD areas of intervention, recognized their limited confidence in leading a project design and implementation process addressing aquatic resources. This may have led to situations where IFAD was not pro-active in identifying opportunities and proposing initiatives addressing fisheries or aquaculture.

B. IFAD portfolio

79. The analysis of IFAD's financial resources allocated to aquatic resources was carried out considering the entire cost of each project, as it was not possible in the multi-sectoral projects to identify the resources allocated to the aquatic-resources relevant components. This entails an element of over-estimation of the financial resources allocated to aquatic resources throughout the ES. Also, to enable the identification of possible trends in allocations over time and considering that the scope of the ES is 2009-2017, two time-periods were used for the analysis, 1979 to 2008 and 2009 to 2017.

80. The first project supported by IFAD that the ES could identify as addressing aquatic resources, aquaculture in this case, was the Casier-Sud Pioneer Agricultural Project in Laos, approved in 1979. Since then, the Synthesis has identified 98 loans and grants approved up to December 2017 that addressed aquatic and/or coastal zone resources. The projects were implemented in 36 IFAD Member States. IFAD's contribution was US$ 1560.35 million, representing 46.2 per cent of the total cost of aquatic resources-relevant projects which was US$ 3374.07 million, and 8.1 per cent of all IFAD's loans and grants approved between 1979 and 2017.

81. The ES decided to compare the evolution of financial resources allocated to aquatic resources-relevant projects over time, following the same time boundaries used in the analysis of evaluations, i.e. from the first approved project in 1979 until 2008, and from 2009 onward. Table 3 shows the relevant budget figures over the two time-periods considered, volumes of co-financing, average size of projects and share of allocations to aquatic-resources relevant projects out of IFAD's total project resources. The key findings emerging from Tables 3 and 4 and Figure 2 are discussed further on.

Table 3
Financial resources to IFAD-supported aquatic resources relevant projects

	Total project value (million US$)	*Number projects*	*IFAD contribution (million US$)*	*Co-financing, including Governments and beneficiaries (million US$)*	*Percentage of IFAD's contributions to total project cost, by period*	*Average IFAD's contribution (million US$)/ intervention*	*Total IFAD allocations to all sectors (million US$)*	*Share of IFAD's contribution to aquatic resources*
1979-2008	1620,78	65	838,00	782,78	51.7%	12,9	11285.2	7.4%
2009-2017	1753,29	33	722,35	1030,94	41.2%	21,9	8064,14	9.0%
Total	3374,07	98	1560,35	1813,72	46.2%	15,9	19349,34	8.1%

Source: IFAD corporate systems

82. The number of projects and IFAD's financial resources by sub-sector as classified by the Synthesis, over time, is shown in Table 4 below.

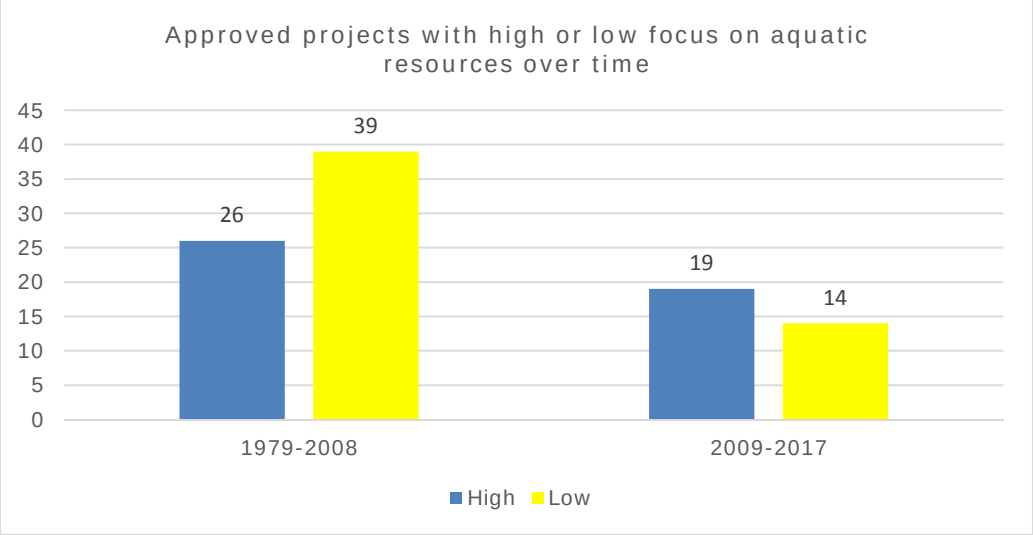
Table 4
Number of projects and share of financial resources within IFAD's total allocation to aquatic resources-relevant projects, by sub-sector and time-period

	Aquaculture		*Coastal Zone Resources*		*Freshwater capture fisheries*		*Marine capture fisheries*		*SIDS aquatic resources*	
	N. projects	*% budget*	*N. projects*	*% budget*	*N. projects*	*% budget*	*N. projects*	*% budget*	*N. projects*	*% budget*
1979-2008	22	47.5%	7	17.4%	6	7.8%	14	17.0%	16	10.3%
2009-2017	10	45.4%	8	33.8%	3	4.0%	7	12.3%	5	4.6%
Total	32	46.5%	15	25.0%	9	6.0%	21	14.8%	21	7.7%

Source: IFAD corporate systems, elaborated by the Synthesis team

83. An additional important element in the analysis was the extent to which the focus of each project was on aquatic and coastal zone resources. As mentioned above, the Synthesis included in its analysis all projects that addressed to any extent work on aquatic and coastal zone resources. However, projects differ significantly in the attention given to aquatic resources in project log-frames and budgets. As explained in the methodology, the team classified projects as having a High or Low focus on aquatic resources, based on the relative attention given to these resources in the project design. Figure 2 below shows how many projects were classified accordingly, over time.

Figure 2
Number of projects approved over time, with high or low intensity of focus on aquatic and coastal resources



Source: IFAD corporate systems, elaborated by the Synthesis team

84. Overall, the data on approvals and financial resources show the following:

(a) Over time, and making allowances for the differences in length in the considered time-spans, IFAD's allocations to aquatic resources-relevant projects has been relatively consistent, between 7.4 and 9 per cent of its total allocations, with a trend towards a small increase since 2009;

(b) IFAD's contribution to project costs has increased over time together with the number of projects with a high focus on fisheries and/or aquaculture;

(c) The share of financial resources allocated to "high focus" projects was highest in the CZR group, at 64.3 per cent; followed by marine capture fisheries at 51.1 per cent; freshwater capture fisheries at 33.9 per cent; aquaculture at 25.8 per cent and SIDS at 25.4 per cent;

(d) IFAD engaged in 36 countries on aquatic resources; in two SIDS, the aquatic-relevant projects represented 75 and 100 per cent of IFAD's portfolio respectively; in thirteen countries, between 20 and 50 per cent of the portfolio; and in 21 countries, less than 20 per cent of the portfolio;

(e) Aquaculture development has systematically benefitted from more interventions and financial resources than capture fisheries or CZR, though most projects number-wise were assessed as having a "low focus" on aquatic resources;

(f) Coastal Zone Resources was the second subsector in terms of overall resources, partly because it included four projects linked to the relief interventions in the wake of the December 2004 Indian Ocean Tsunami. This is the only sub-sector where the trend so far is of a slight increase since 2010 in the number of projects and share of financial resources, compared with the previous period; most projects were assessed as having a "high focus" also number-wise;

(g) Marine fisheries follows at a distance in terms of allocated resources, with a constant pattern over the long term in number of interventions and financial resources; most projects were assessed as having a "high focus" also number-wise;

(h) Resources for fresh-water capture fisheries have been systematically low. This tends to be an invisible sub-sector for many organizations, the exceptions being the work on some major fresh-water bodies, for example

Lake Victoria in Eastern Africa, as already discussed in Box 1 above; in a small majority of projects number-wise, the focus on fisheries was low.

85. A separate analysis was carried out for IFAD's interventions in SIDS. Between 1983 and December 2017, IFAD approved 81 loans and 9 grants to SIDS, across all sectors, for a total approved contribution of US$ 580,5 million. The first initiative was in Cape Verde, the Assomada Integrated Agricultural Development Project. The 21 loan projects identified as addressing 'aquatic and coastal zone resources' represented 25.9 percent of all IFAD loans in SIDS; and 20.2 percent of IFAD's financial contributions to this group of countries.

86. For ease of quantitative analysis, the Synthesis grouped the SIDS Member States in three sub-groups: Caribbean and Atlantic Ocean; Indian Ocean; and Pacific Ocean. In terms of number of interventions and budget resources, the prevalence of aquatic-relevant projects compared to interventions in all other sectors is shown in Table 5 below. Other sectors comprised agriculture and rural development, followed by livestock-focused and rural finance interventions.

Table 5
Number, IFAD's financial contribution and percentage share within each geographical sub-group, of aquatic resources- and other sectors-relevant projects in SIDS, since 1983

Sector	***Aquatic resources***			***Other sectors***		
SIDS sub-group	N. projects	US$ million	% financial resources	N. projects	US$ million	% financial resources
Caribbean and Atlantic Ocean	11	75,2	18,4%	44	333,5	81,6%
Indian Ocean	9	41,1	66,7%	7	20,5	33,3%
Pacific Ocean	1	3,2	2,8%	18	109,1	97,2%
Total	21	119,5	20,5%	69	463,1	79,5%

87. Table 5 above shows the number of projects addressing aquatic resources in each group of SIDS, IFAD's financial contribution and the percentage share of financial resources within the entire portfolio of each group. Overall, considering the dependence of SIDS economies and food security on marine fisheries, the attention to aquatic resources in the Caribbean and Pacific SIDS was low and very low respectively, and high in the Indian Ocean SIDS. The four SIDS where the share of the IFAD portfolio allocated to aquatic resources-relevant projects was the highest (see bullet point d) above) were: the Maldives, 100 per cent; Grenada, 75 per cent; Mauritius and São Tomé and Principe, 50 per cent in each.

88. The Synthesis team explored the reasons behind this clear focus "away from aquatic and coastal resources", in the Pacific and in the Caribbean and Atlantic SIDS. The data above also suggest that in the SIDS, there was a gradual exit from fisheries over time, probably due to the identification of other areas of intervention where IFAD had a greater comparative advantage. For example, information available suggests that in the Pacific SIDS poverty is not linked to livelihoods that depend on fisheries resources. Furthermore, these countries have strong national competence in marine fisheries. Thus, IFAD's focus on other sectors of intervention, for example in small-scale agriculture and nutrition, appeared very appropriate. For SIDS in other regions, the reasons may have also included a certain tendency in IFAD not to take aquatic and coastal zone resources into consideration, as mirrored in the two available sub-regional strategies and as discussed later in the report.

C. IFAD non-lending activities

Knowledge products

89. The Synthesis identified three IFAD technical papers that address aquatic resources, and a project-related note, as follows:[49]

- 2007/08, a technical note on Inland Fisheries and Aquaculture, linked to the Benin project Participatory Artisanal Fisheries Development Support Programme (2003-2011);
- 2010 “Fisheries Thematic Paper - Impact of climate change on fisheries and aquaculture in the developing world and opportunities for adaptation”;
- 2014 “Guidelines for Integrating Climate Change Adaptation into Fisheries and Aquaculture Projects”;
- 2015 “How to do Note on Fisheries, aquaculture and climate change”.

90. These documents have the purpose of informing and providing guidance about various aspects of fisheries and aquaculture management to IFAD staff and consultants who contribute to project design and supervision, and to management teams who are responsible for implementing projects supported by the Fund. Three of these focus on aquatic resources in the context of climate change adaptation. The 2010 Thematic Paper presents an interesting though somewhat generic presentation of the emerging issues about fisheries and climate change. The 2014 Guidelines presents a highly detailed and comprehensive reference document that introduces the concepts of the Ecosystem Approach to Fisheries and to Aquaculture, co-management and Integrated Coastal Zone Management (ICZM) and Marine Protected Areas (MPAs) among other topics. Finally, the 2015 user-friendly How-To-Do-Note, is a manual for practitioners about how to implement the Guidelines.

91. Overall, these products appear well documented and prepared, and could effectively support non-specialists, or specialists who are not well acquainted with IFAD’s procedures and processes, in framing the issues about fisheries, aquaculture and climate change in the context of project design. The two most recent papers are easily accessible through the IFAD Web site, within the Topics/Aquaculture and Fisheries page, but beyond this, the Synthesis did not find evidence of efforts to make them known among potential users, or of corporate records of the extent to which these documents are shared and used.

92. Similar to the way in which it approached IFAD’s policies, the Synthesis also reviewed a few other IFAD knowledge products that could reasonably be expected to discuss aquatic resources. These included:

- The eight-pages ‘Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests. Implications for IFAD’, published in 2014, which includes virtually no reference to how IFAD should integrate the VGGT in fisheries interventions;
- The ‘Multidimensional Poverty Assessment Tool: User’s Guide’, published in 2014, which makes extensive reference to artisanal fisheries as the tool was tested in the Mozambique ProPesca project;
- The ‘How to do Note on Climate change risk assessments in value chain projects’, published in 2015, which makes systematic reference to fisheries and includes a case study on the Djibouti PRAREV project.

Partnerships

93. The Synthesis team held interviews with a number of international agencies that have partnered with IFAD in the domain of aquatic and coastal zone resources.

[49] These products were mostly prepared by consultants until 2014, and by IFAD staff from 2015 onward.

These aimed at canvassing views about the strengths and weaknesses, if any, of their collaboration with IFAD, as well as views on what should be the drivers in the future for IFAD's work in these sectors and sub-sectors.

94. Collaboration with IFAD well appreciated. Overall, collaboration with IFAD and the presence of IFAD in the development arena that focuses on aquatic resources was highly appreciated. IFAD was perceived as serious in the depth of its analyses at project design stage, and as a valued partner in supporting various types of initiatives and upscaling successful pilot experiences and innovations. Specific partnerships with a few organizations are discussed below.

95. Stronger collaboration with FAO. Collaboration with FAO on aquatic resources has been frequent and strong, especially after a full-time fisheries and aquaculture expert joined the pool of IFAD in-house technical experts.[50] It typically happens through two main channels. On specific aquatic resources initiatives, IFAD and the Fisheries and Aquaculture Department have been partnering on specific initiatives, e.g. the joint organization and management of side-events at international meetings such as IFAD's Farmers Forum, CSF, COFI and the Oceans' Conference on SDG 14. IFAD also provided small grants to professional, civil society and non-governmental organizations to enable their participation into global processes led by FAO, e.g. the preparation of the VGGT.

96. The second channel, part of the broader standard IFAD-FAO collaboration, is through FAO's Investment Centre (TCI), which provides in-house or ad-hoc recruited expertise to lead or integrate project design and supervision teams. Although no systematic information was found in this respect, some FAO staff and many consultants have contributed to the design of IFAD's projects discussed in this synthesis and have contributed to the exchange of experience and lessons learned across the two organizations. The main concern in this relationship is that requests for FAO's staff have often not been planned sufficiently in advance, and at times not early enough in the formulation process thus undermining the full potential of the collaboration. IFAD also finances grants through FAO, addressing various aspects of fisheries and aquaculture; these are discussed in the next sub-section.

97. Limited scope of collaboration with the GEF International Waters Programme. This was partly because GEF has not been active so far in aquaculture, partly because of the limited involvement by IFAD in marine waters, and partly because of GEF's involvement in transboundary issues for which the loan model is not appropriate.[51] The 2016 GEF Office of Evaluation study showed that IFAD had only 2 projects with financial contributions from the GEF International Waters portfolio.[52] There is potential for collaboration between the two organizations, with IFAD contributing funds for infrastructures, which are more interesting for a Government under a loan scheme, whereas GEF would support capacity and institutional development. IFAD should focus on those activities where it has comparative advantage within the aquatic resources sector, which may include development of fishers' organizations, access to markets and value chain development.

98. Collaboration between IFAD and WorldFish has been so far part and parcel of the broader partnerships between the Fund and the CGIAR organizations. At the

[50] At the time of writing this report, the previous Policy and Technical Advice Division part of the Programme Management Department (PTA/PMD) was being moved to the Strategy and Knowledge Department. Within the latter, the Aquaculture and Fisheries desk was assigned alongside others, to the Sustainable Production, Markets and Institutions Division (PMI).

[51] This will possibly change in future, as IFAD is presently working towards a financing mechanism for regional/transboundary programmes, in response to IFAD11 commitments.

[52] The Synthesis identified four IFAD loans with grant contributions from the GEF as of December 2017, but information may not be fully complete.

time of writing this report, IFAD did not have a formal agreement with WorldFish,[53] although the Centre highly valued the collaboration and was willing to expand it. The Synthesis team found no significant evidence that the poverty alleviation-focused research conducted by WorldFish with IFAD's grants had been put to fruitful use in IFAD's supported projects until the recent successful experience in Bangladesh. Here, IFAD and WorldFish worked through the HALiP/CALIP initiatives on improving the productivity and use of the highly nutritious 'mola' fisheries, with reported positive results on the nutritional status of poor households. This led to scaling up this innovative work to other countries in Asia and Africa. Further grants allocated by IFAD to WorldFish and the International Institute for Tropical Agriculture should enable the provision of high level technical assistance to IFAD-funded projects in support of freshwater fisheries and aquaculture development in the Democratic Republic of Congo and Angola.

Grants[54]

99. Few IFAD grants addressing aquatic products. The ES identified 16 self-standing grants made by IFAD during the period 2004-2017, totalling US$ 19.8 million, which addressed issues related to aquatic resources. Of these, 10 were 'small grants' and 6 were 'large grants'. Four large and two small grants were part of IFAD's umbrella programme with the CGIAR, supported also by the European Development Fund.; four small grants were allocated to non-governmental organizations; one large and two small grants were allocated to Producers' associations; one large grant was allocated to the Government of Cameroun; and two small ones to the Secretariat of the Pacific Community. Seven were global in scope whilst all others were country- or multi-country focused. Sector-wise, seven addressed small-scale aquaculture, five both small-scale fisheries and aquaculture, two small-scale fisheries and two SIDS-related issues.

100. IFAD grants to FAO on aquatic resources. In addition, IFAD financed 7 grants to FAO related to small-scale fisheries, aquaculture and aquatic resources, totalling US$ 5.8 million. This represented 7 and 8 per cent of all grants by IFAD to FAO since 1985, number- and budget-wise respectively. Conversely, FAO's Technical Cooperation Projects (TCP) have at times contributed to IFAD-funded initiatives, as was the case with the Aquaculture Business Development Project (ABDP) in Kenya.

101. Support to advocacy and negotiation capacity development. A group of seven grants allocated to NGOs, Producers' Associations and FAO contributed to facilitate the participation of various stakeholders in international meetings and fora, related to small-scale fisheries and aquaculture to various extents. In three cases, the topics of the meetings were food sovereignty, pro-poor ecosystem service markets and world food security. Fishers and fishing communities were among many of the workers' categories attending and the relevance and direct effects of these events on the sectors were probably very diffused and marginal.

102. More focused were the grants provided to two umbrella associations of small-scale fishers' organizations. One, in favour of an Indian organization, focused on developing capacities of its member organizations in communication and advocacy in order to be more effective when attending international meetings. The second, in favour of an Italian NGO, aimed at raising awareness about the Voluntary Guidelines for Small-Scale Fisheries amongst organizations of small-scale fisheries workers and their communities through actions at local, national and sub-regional levels, and to build capacity for the implementation of the Guidelines in pilot countries.

103. Similarly, two of the grants to FAO contributed to government staff and private sector representatives attending the FAO-organized 2008 and 2010 "Round Table

[53] As of 2018, IFAD has an agreement with the entire CGIAR system.
[54] See Annex IV for the complete list of self-standing grants addressing aquatic resources, approved by IFAD.

Meetings for Pacific Island Countries on World Trade Organization (WTO) and regional trade agreements and provisions", on agricultural and fisheries products. The 2012 FAO evaluation of the CCRF, referred to earlier, found that these meetings were part of FAO's efforts aimed at supporting its Members States to cope with the new WTO rules concerning the international trade of fish and fishery products. Albeit relevant and appreciated by participants, the impact of these efforts was far from satisfactory, with Governments complaining about the obstacles faced in exporting value-added products to major importing countries, particularly the European Union.

104. Furthermore, on the theme of support to advocacy, the Biennial Farmers Forum organized by IFAD also invites fishers' representatives in its steering committees and includes sessions dedicated to fishers.

105. Support to regional and country level initiatives. Another group of eight grants supported work at regional and country level, including communities and groups of producers, and implemented through CGIAR centres, regional organizations or Non-Governmental Organizations. A few had been approved too recently for information on results to be available. Among these, a small grant in Pakistan aimed to support Public-Private Partnerships with small-scale aquaculture producers, but the latter component was cancelled due to the project's insufficient duration.

106. Among those that had advanced sufficiently in implementation for results to be known, the most successful was a small grant to WorldFish, aimed at improving incomes and nutrition through enhanced practices in freshwater fisheries and aquaculture in Bangladesh. The project focused on raising the productivity of small fish (mola) in ponds, water bodies and rice fields, and achieved significant results. The project was closely supervised by a PhD student from the Bangladesh Agriculture University, which enabled close linkages with the national fisheries research institution. A final workshop allowed the results to be shared with the key national stakeholders. A follow-up large grant was approved in 2017, in support of the 'nutrition-sensitive fish food systems pillar' of WorldFish, to expand the experience gained in Bangladesh to Cambodia, Myanmar, Thailand and Zambia. Work was in progress as of early 2018 and one main challenge was adapting the concept to the local contexts. Another small grant was approved in favour of WorldFish to improve the genetic quality of commonly farmed fish species such as tilapia and cat fish; no information was available about its results at the time of writing this report.

107. Another small grant aimed at introducing organic farming in the Pacific islands through the Secretariat of the Pacific Community. As a result, some islands became fully organic, and this should have positive environmental impacts on coastal marine ecosystems and resources.

D. Synthesis of findings

108. Limited attention at the corporate level. IFAD strategic frameworks and sectoral policies have given limited explicit attention to aquatic resources and to the rural poor who depend on them. The strongest corporate commitment in this respect was the 2014 paper on SIDS. However by the time of writing this Synthesis it had had limited follow-up, and very limited impacts in terms of projects supported in SIDS that addressed aquatic resources. Assuming that the Paper's focus on "sustainable small-scale fisheries and aquaculture, including aquaculture and mariculture of nutrition-rich fish, and strengthening fish value chains" had been validated at least to some extent with concerned Governments, the Synthesis could not identify whether the lack of subsequent and coherent actions was due to lack of requests in this sense by IFAD members, or by limited responsiveness from the Fund to such requests.

109. More visibility in IFAD's national strategies. In contrast, with regard to the strategic planning process at country level, COSOPs have been quite systematic in integrating aquatic resources and communities depending on these, in their programmes. This was confirmed by the finding that three quarters of projects had been approved within the framework of COSOP that included aquatic resources within their programmatic thrust. The fact that a quarter of aquatic resource-relevant projects was approved despite the relevant COSOP not envisaging interventions in this domain suggests that IFAD has been flexible in allocating its resources there where they were needed.

110. IFAD typically not a large player in the aquatic resources sector. The portfolio analysis shows that with the exception of four SIDS, IFAD has not so far been an important player in the fisheries and aquaculture sectors, or in coastal zone management, in any Member State. Reasons for this appear to be multiple and are likely to include factors outside IFAD's control. From within IFAD however, the two main factors appeared to be the limited attention to aquatic resources at the corporate strategic level, and the limited in-house expertise in these areas.

111. The same factors appear to have influenced the perceived need within IFAD for knowledge products that address aquatic resources. The good quality of the products testifies to the professional competence of those engaged in the sectors. Nevertheless, the low numbers, and the limited cross-referencing to aquatic resources in other products, are also clear indicators of the precious few human resources available 'in-house' in these domains.

112. In-house staff resources facilitate collaboration. Collaboration between IFAD and some partners has increased since IFAD has a full-time staff member dedicated to aquaculture and fisheries. There is room for improving the existing partnerships with organizations that have a high comparative advantage on technical issues, such as FAO and WorldFish, through more systematic and timely planning, also in the early stages of project conceptualization.

113. No strategic vision in the use of grants. IFAD's grants that addressed aquatic resources have been quite diverse. The more frequent topics were aquaculture development, support to capacity development of both governmental and non-governmental stakeholders; and applied research. Information on the results of the completed projects is quite limited and shows that the spread of initiatives did not seem to be informed by a strategy underpinning the use of resources, not even with FAO, although this did not undermine the relevance or usefulness of the individual interventions.

Key points

- IFAD has given limited attention to aquatic resources in its work at the corporate level, although a significant number of COSOPs include fisheries and aquaculture to some extent, as part of their programmatic commitments.
- The presence of in-house expertise on aquaculture and fisheries appears to facilitate collaboration with other organizations in these domains and to enhance the quality of the work carried out in this domain.
- Over the years, IFAD has allocated 8 to 12 per cent of its financial resources to projects addressing aquatic resources;
- In SIDS, work on aquatic resources has not been a major component of IFAD's portfolio;
- Grants were approved in an ad-hoc manner without a strategic vision; some appeared to have achieved significant results.

X. Analysis of IFAD's portfolio

114. This section draws on the findings from the evaluations and other documents and is organized by sub-sector. Within each, all the selected evaluation criteria are discussed. At the beginning of each sub-sector, a table indicates which projects are part of it. This should allow the reader to understand what have been the key strengths and weaknesses of IFAD's performance in each sub-sector.

A. Aquaculture

115. The ES identified 32 projects approved by IFAD since 1988, that included activities for small-scale aquaculture development. Of these, the ES reviewed the 29 projects included in Table 6 below,[55] 23 of which had been evaluated. The large majority of these projects, 25, were implemented by the Asia and Pacific Division (APR); three were implemented by the West and Central Africa Division (WCA), two by the Eastern and Southern Africa Division (ESA) and one each by the Near East, North Africa and Central Europe Division (NEN) and by the Latin America and Caribbean division (LAC) respectively.

Table 6
IFAD aquaculture projects, by year of approval

IFAD's Board approval, year	*Aquaculture projects, evaluated*	*Aquaculture projects, non-evaluated*
1988		Bangladesh Oxbow Lakes Small-Scale Fishermen Project – OLSFP, High focus
1995	Bangladesh Small-scale Water Resources Development Sector Project – SSWRDP, Low focus	
1996	Viet Nam Agricultural Resources Conservation and Development Project in Quang Binh Province – ARCDP, Low focus	
1997	China Southwest Anhui Integrated Agricultural Development Project – SAIADP, Low focus	
1998		Bangladesh Aquaculture Development Project – ADP, High focus
1999	India Jharkhand Chattisgarh Tribal Development Project – JCTDP, Low focus; Viet Nam Ha Tinh Rural Development Project – HTRDP, Low focus	
2001	Bangladesh Sunamganj Community Based Resource Management Project – SCBRMP, High focus; Nigeria Community-based Agricultural and Rural Development Programme – CBARDP, Low focus; Viet Nam Rural Income Diversification Project in Tuyen Quang Province – RIDP, Low focus	
2002	Laos Oudomxai Community Initiatives Support Project – OCISP, Low focus	
2003	Cambodia Rural Poverty Reduction Project in Prey Veng and Svay Rieng – RPRP, Low focus	
2004	Viet Nam Decentralized Programme for Rural Poverty Reduction in Ha Giang and Quang Binh Provinces – DPRPR, Low focus	
2005	Laos Rural Livelihoods Improvement Programme in Attapeu and Sayabouri – RLIP, Low focus	
2006	Bosnia Rural Enterprise Enhancement Project – REEP, Low focus; Congo Rural Development Project in the Niari, Bouenza and Lékoumou Departments – PRODER 2, Low focus	
2007	Bangladesh Finance for Enterprise Development and Employment Creation Project – FEDEC, Low focus; National Agricultural Technology Project – NATP I, Low focus	
2008	DRC Integrated Agricultural Rehabilitation Programme in Maniema Province – IARPMP, Low focus	

[55] In the case of four projects, too little information was available to conduct any meaningful analysis

2009	Bangladesh Participatory Small-scale Water Resources Sector Project – PSWRSP, Low focus; China Dabieshan Area Poverty Reduction Programme – DAPRP, Low focus	
2011	Bangladesh Haor Infrastructure and Livelihood Improvement Project – HILIP, High focus	
2012	Cambodia Project for Agricultural Development and Economic Empowerment – PADEE, Low focus	Venezuela Integrated and Sustainable Development Project for the Arid Zones in the States of Nueva Esparta and Sucre – PROSANESU, High focus
2013	China Shiyan Smallholder Agribusiness Development Project – SSADeP, Low focus; Mozambique Project for Promotion of Small-scale Aquaculture – PROAQUA, High focus	
2014		Bangladesh Promoting Agricultural Commercialization and Enterprises Project – PACEP, Low focus
2015		Bangladesh National Agricultural Technology Program - Phase II, Low focus
2017		Kenya Aquaculture business development project – ABDP, High focus

Source: IFAD corporate information systems

116. Several of these projects were implemented in Bangladesh 'beels'. These are natural depressions which are filled on a seasonal basis by surface run-off water to form enclosed freshwater bodies which are then fished, managed and restocked by specific sets of fishers. Hence their classification in this category, rather than as freshwater capture fisheries.

117. Overall, IFAD's involvement in this sector was highly variable. Aquaculture was frequently a minor component in more wide-ranging projects and thus was ignored or marginalised in project documentation. In only one country, Bangladesh, can an overall story of IFAD's long-term involvement in aquaculture be developed, as discussed in the next section of the report. Elsewhere, the picture which emerged was fractured and fragmentary and lacks a common thread or pattern.

Relevance and design

118. In projects approved before 2000, the major theme was the need to address poverty, especially extreme poverty. The stress was on livelihoods and beneficiary participation and, in some cases, increasing protein consumption. Although aquaculture was often a very minor component of the projects' thrust and budget, all the projects recognised the potential importance of aquatic resources to poverty reduction. Occasionally this was couched in terms of food availability for the producing households but in general, aquatic resources were seen as a means of generating incomes for producers.

119. Complexity and rural finance emerged during this period as common features of these interventions. Several projects were over-ambitious, consisting of a large number of poorly integrated elements (Viet Nam ARCDP; India JCTDP). Savings and credit initiatives were frequent albeit also problematic, primarily due to poor planning (Bangladesh ADP, China SAIADP and Viet Nam ARCDP).

120. During the following decade (2000-2009), several themes emerged. One strand focused on the role of aquaculture in the livelihoods of poor households (Bosnia REEP; Cambodia RPRP; Laos OCISP and RLIP; Viet Nam RIDP and DPRPR). Other strands were community management of water bodies (Bangladesh FEDEC) and the sustainable use of natural resources (Viet Nam RIDP and DPRPD). There was increasing stress on marketing and value chain development (Bangladesh SCBRMP, FEDEC and NATP; China DAPRP) whilst rural savings and credit were also significant in some projects (Bangladesh FEDEC; China SAIADP; Congo PRODER-2; Viet Nam DPRPR).

121. Complexity continued to be an issue, as was the case for Bangladesh FEDEC, NATP and SCBRMP, Laos OCISP and Viet Nam RIDP. Again, project components were poorly integrated with each other and at times there was no clear logic linking project activities to desired impacts (Bangladesh SCBRMP; Bangladesh NATP). There were also issues concerning the relative weight to be given to investment in infrastructure versus capacity building (Bangladesh NATP). At times, local capacity was over-estimated (Congo PRODER-2 and Laos OCISP). In these cases, and subsequently in Angola with AFAP, smaller pilot projects would have been preferable.

122. Since 2010, most projects have been concerned with value chain development (Bangladesh HILIP, NATP-2 and PACEP; China DAPRP and SSADeP). Only one project addressed the direct alleviation of poverty by focusing on production (Cambodia PADEE), whilst Bangladesh HILIP focused on managing water bodies and Venezuela PROSANESU on reducing pressure on marine and fisheries resources by promoting alternative sources of livelihood including aquaculture. Clarity and cohesion in project design were again an issue, for example in Bangladesh HILIP.

123. Throughout the period covered by the Synthesis, most projects were informed by IFAD's or other agencies previous in-country experience, although this was not always the best approach. For example, in the case of Viet Nam ARCDP, previous experience suggested avoiding integration of project elements, but this lack of integration became an issue during project implementation.

124. One common theme running through most projects, particularly marked in Bangladesh, was a focus on infrastructure. In the early projects, at least part of the infrastructure investment was concerned with productive resources. But as the focus of projects moved towards markets and, later, value chains, so an increasing proportion of investments was concerned with markets and roads. The focus on credit activities also shifted from small-scale aquaculture producers towards support for post-harvest activities such as processing and marketing.

Targeting

125. Until 2000, the first stage of targeting was in terms of geographically defined areas, either using government statistics (China SAIADP, India JCTDP and Viet Nam HTRDP) or focusing on groups who had been negatively affected by other developments (Bangladesh SSWRDP). Within these areas, targeting was refined although the methods used were not always clear (Viet Nam ARCDP). The 'more active and resourceful households' were at times preferred over the poorest people in project areas (China SAIADP; Viet Nam HTRDP).

126. Since 2000, geographical criteria have remained important in defining the target areas. One group of projects focused directly on the poor (Bosnia REEP, Cambodia RPRP, Congo PRODER-2, Laos OCISP and RLIP, Viet Nam RIDP). Another group, all in Bangladesh, developed more complex systems of targeting, different activities being directed towards different groups of people. FEDEC and HILIP targeted 'progressive borrowers' who would create employment to benefit the 'hard core poor'. NATP relied on 'self-targeting' by people who would use the advantages gained by exposure to the project to create employment for the poor. In most, the poorest were targeted either as labourers or as indirect beneficiaries of the activities of others. At the same time, women and female-headed households were targeted and in most cases youths were also mentioned.

Effectiveness

127. For projects approved before 2000, effectiveness varied both across the group and within projects, partly as a result of over-complexity in project design. In Viet Nam ARCDP and Bangladesh SSWRDP, which were effective overall, the aquaculture components appear to have been neglected and were not successful.

Most projects supported various forms of group formation and encouraged participatory approaches (China SAIADP; India JCTDP, Viet Nam HTRDP and ARCDP). However, evaluations have expressed some doubts as to how participatory the projects were in reality. Within this group, non-evaluative evidence indicates that the Bangladesh OLSFP was successful in establishing community management of inland water bodies (beels) with a concomitant rise in incomes for participating fishers.

128. For projects approved between 2000 and 2009[56] effectiveness of the aquaculture components also varied significantly although it is difficult at times to disentangle the aquaculture element from the totality of project performance. In Bangladesh SCBRMP the aquaculture component was successful although during implementation, most financial resources were diverted to infrastructure development thus limiting the potential results of aquaculture development and support to rural finance. In Laos RLIP and Cambodia RPRP, the aquaculture components were relatively successful compared with other components, whereas in the two very unsuccessful Laos OCISP and Congo PRODER-2, the aquaculture component was dropped. In still others the success or otherwise of the aquaculture component remained unclear at the time of the respective evaluations (Bangladesh FEDEC and NATP; Bosnia REEP, Viet Nam RIDP and DPRPR).

129. Available evidence indicates that projects adopted participatory approaches and in at least one case (Cambodia RPRP) the project also successfully contributed to the empowerment of local communities. However, in other cases doubts were expressed as to the viability of participatory approaches and the dangers of over-reliance on beneficiary preferences for the integrity of project design (Laos OCISP; Nigeria CBARDP). Projects also supported the establishment or strengthening of rural organisations. In some cases, this was effective, at least in the short run (Viet Nam RIDP and DPRPR). In others what evidence there is indicates very limited success, as in the case of Laos OCISP.

130. Overall, IFAD's performance and support for projects was seen as satisfactory, especially after it took over direct supervision from UNOPS. But in a couple of projects in Viet Nam (RIDP and DPRPR) there were complaints about the lack of continuity of the personnel in Supervision Missions and the need for standardised M&E formats.

Rural Poverty Impact

131. Evidence on rural poverty impact for projects approved before 2000 is sparse. Whilst some projects (China SAIADP, Viet Nam HTRDP) did show a marked increase in rural incomes, how far this was due to aquaculture is not identified. In Viet Nam ARCDP one of the main drivers of increased rural incomes, shrimp farming, was beyond the reach of the poor. Bangladesh OLSFP was the one project which did seem to have a major impact through increasing fish production, but it was unfortunately not evaluated. The picture was similar regarding nutrition. Only in Viet Nam HTRDP the nutritional levels improved markedly, but there was no indication of the contribution from aquaculture in this impact.

132. Although projects approved between 2000 and 2009 had an impact on rural incomes, many of the evaluations express unease as to the reliability of the data (Bangladesh NATP; Cambodia RPRP, Congo PRODER-2, Laos RLIP, Viet Nam DPRPR). There is also evidence that increases in income varied between groups and that the 'hard core' poor often benefited least (Bangladesh FEDEC; Laos RLIP and OCISP). This appears to be the result of an approach which assumed that the activities of the 'dynamic poor' would create employment

[56] For projects approved since 2010, no sufficient evaluative evidence was available on results and impacts.

opportunities. As far as nutrition is concerned, there were similar problems over data. One success was the work on small fish which poor consumers could afford, supported by WorldFish and IFAD (Bangladesh SCBRMP), whilst Laos RLIP led to improvements in general nutritional levels but little change in malnutrition rates.

Sustainability of benefits

133. Only a minority of projects approved before 2000 addressed sustainability of benefits as an issue in project design and implementation. Exceptions looked to future government support as a guarantor of sustainability (Bangladesh OLSFP, China SAIADP, Viet Nam HTRDP).

134. In projects approved between 2000 and 2009, sustainability was recognised as an important issue, although the degree to which it was achieved varied greatly and the aquaculture components in projects are rarely mentioned. Political ownership or backing was important in several cases (Bangladesh SCBRMP and NATP; China SAIADP, Laos OCISP; Viet Nam DPRPR) and when it was forthcoming there was a much greater chance of long term viability. In the case of FEDEC in Bangladesh, where the project was dependent on private sector involvement, sustainability was fragile. No clear pattern emerges as to the degree that community-level initiatives were viable in the long term although the available material is pessimistic (Laos OCISP and RLIP).

135. In projects approved since 2010, sustainability was a major theme in project design. In some cases, the necessary underpinning was to be supplied through ensuring long term government support (China SSADeP, Mozambique PROAQUA); in others through links to the private sector and increased commercialisation of production (Cambodia PADEE; Congo PDPAC). However, no evaluative evidence is available on the prospects for sustainability of these projects.

Gender equality and women's empowerment

136. All projects approved before 2000 addressed issues concerning women and gender to varying degrees. In general, the focus was on the practical rather than strategic aspects of gender: on issues such as health and nutrition rather than the empowerment of women on a wider basis. Others were more ambitious in adopting a 'gender sensitive' approach and encouraging women to participate in project activities and organisations. But where there are data (China SAIADP and Viet Nam ARCDP), women were a minority in various forms of organisation. In India JCTDP, funds were earmarked to produce a gender strategy, which did not happen.

137. In most projects approved between 2000 and 2009, gender was 'mainstreamed' both in design and implementation (Bosnia REEP, Cambodia RPRP; Congo PRODER-2, Laos OCISP and RLIP). Projects either designated women as 'agents of change' (Bangladesh SCBRMP) or envisaged the empowerment of women as a key project component (Viet Nam RIDP). Gender awareness training was increasingly important (Laos OCISP; Viet Nam RIDP). Impressive numbers of women figured as beneficiaries as project employees and recipients of training in Bangladesh SCBRMP, and as the majority in savings and credit groups in Viet Nam RIDP. A degree of female empowerment was achieved in some cases through improved access to credit, extension services and by providing capacity development opportunities for women (Bangladesh SCBRMP, Nigeria CbARDB, Philippines NMCIRMP, Viet Nam DPRPR and RIDP).

138. Still, there were many unresolved issues. In Bangladesh FEDEC, it transpired that loans to women to set up microenterprises were being appropriated by their husbands. In Cambodia RPRP gender training was given to women but not to men. Where there are data, women were a small minority of project staff (Cambodia RPRP) but in many cases no data are available. In Bangladesh SCBRMP and FEDEC, great stress was placed on the employment of poor women as labourers for the

infrastructure components of projects such as building roads and markets, but how this would lead to female empowerment is not made clear.

139. Projects approved more recently such as Bangladesh PACE and Venezuela PROSANESU, mentioned either gender or women as key areas of project activity in their Project Design Reports. Again, the impact pathways were not set out in detail in the documents.

Environment and natural resources management, and adaptation to climate change

140. There is very little data relating to projects approved before 2000. IFAD documents report no negative environmental impacts, and claim that some projects had a positive impact on land use (China SAIADP; Viet Nam ARCDP and HTRDP). For Bangladesh SSWRDP, it was reported that the project did no harm to fish stocks and the Viet Nam HTRDP reportedly limited the damaging effects of shrimp farming on the environment.

141. Within the subsequent cohort of approved projects (2000 to 2009), only Bangladesh SCBRMP adopted a pro-active approach to the environment, integrating natural management with other development activities and encouraging water user groups to manage their resources in an environmentally sound way. Laos RLIP encouraged the establishment of sanctuary areas to protect local fish species. Otherwise, little attention was paid to environmental issues. At times, no or very few resources were committed to obvious environmental issues (Bangladesh PSWRSP and Cambodia RPRP) but Bangladesh NATP had an 'environmental management framework'. Also, this was the only case where climate change was mentioned, but it involved a reactive rather than proactive stance.

142. With regards to more recent projects, the little evidence available indicates a greater awareness of the potential impact of climate change and the need for more pro-active approaches to natural resource management.

Concluding observations

143. The aquaculture group, the largest among the sub-sectors, includes the highest percentage of interventions, 72 percent, with a low focus on aquatic resources. This might also be a consequence of the nature of aquaculture, which is often considered more similar to agriculture than to capture fisheries. This often led to interventions where aquaculture was an 'add-on' activity, which received less attention than land-based development activities.

144. This also means that these interventions benefitted from, and were affected by, a multitude of factors typical of the way IFAD's projects have been designed and implemented over decades, and less so by aquaculture per se.

145. This also entailed that with the notable exception of work in Bangladesh, discussed in detail in Section VI of this report, IFAD has not as yet developed in any country a technical and methodological approach concerning pro-poor aquaculture development. In this regard, the recently approved Kenya ABDP, which foresees an articulate set of activities based on a clear theory of change, might be an important innovation.

B. Coastal zone resources

146. The Synthesis identified 15 projects approved by IFAD since 1991 that addressed coastal zone resources in their thrust, 11 of which were implemented in countries in the APR region, two in WCA and one each, in LAC and NEN. Of these, 14 were reviewed, all listed in Table 7 below. In this group, 11 projects had been evaluated by the time of the ES, although many at an early stage of implementation.

147. This group of projects also includes the four rehabilitation projects approved by IFAD in the wake of the December 2004 Indian Ocean tsunami which, because of their specificities, will be treated separately. These are: Sri Lanka PT-LiSPP and PT-CRReMP, India PTSLP and Maldives PT-AFReP.[57]

Table 7
IFAD Coastal Zone Resources projects, by year of approval

IFAD's Board approval, year	*Coastal zone resources projects, evaluated*	*Coastal zone resources projects, non-evaluated*
2002	Nigeria Community-based Natural Resource Management Programme-Niger Delta – CBNRMP, Low focus	
2005	Bangladesh The Market Infrastructure Development Project in Charland Regions – MIDPCR, Low focus; India Post-Tsunami Sustainable Livelihoods Programme for the Coastal Communities of Tamil Nadu – PTSLP, High focus; Maldives Post-Tsunami Agriculture and Fisheries Rehabilitation Programme – PT-AFReP, High focus; Sri Lanka Post-Tsunami Livelihoods Support and Partnership Programme – PT-LiSPP, High focus; and Post Tsunami Coastal Rehabilitation and Resource Management Programme – PT-CRReMP, High focus	
2010	Bangladesh Char Development and Settlement Project IV – CDSP; Nicaragua Agricultural, Fishery and Forestry Productive Systems Development Programme in RAAN and RAAS Indigenous Territories – NICARIBE, Low focus	
2013	Bangladesh Coastal Climate Resilient Infrastructure Project – CCRIP, Low focus; Indonesia Coastal Community Development Project – CCDP, High focus;	Djibouti Programme to reduce vulnerability in coastal fishing areas – PRAREV, High focus; Viet Nam Project for Adaptation to Climate Change in the Mekong Delta in Ben Tre and Tra Vinh Provinces – AMD, High focus
2015	Philippines Fisheries, Coastal Resources and Livelihood Project – Fish-CORAL, High focus	Benin Market Gardening Development Support Project – MGDSP, Low focus

Source: IFAD corporate information systems

Post tsunami projects

Relevance and design

148. All these projects addressed in one way or another the needs of a post-disaster population. However, the projects reveal a search for relevance in a situation where IFAD felt the need to contribute to the global rehabilitation effort. IFAD lacked any comparative advantage in this area of work and was not adequately equipped to deal with post-disaster situations. The response was slow, with 27 months passing between approval and implementation in the Indian case.[58] As a result, IFAD entered arenas where many other agencies were already at work.

149. Design was haphazard. The four interventions consisted of a series of unrelated elements with no integrating theme. Perhaps this was inevitable in a post-disaster context but the situation was made worse by a lack of integration with the work of other agencies. In the Indian case this led to a reorientation of the project towards general community development and a retreat from aquatic issues except for marketing. In Sri Lanka, the projects were in a continual process of change, new elements being absorbed by the intervention in an ad-hoc fashion. The Maldives PT-AFReP was also conceived in haste and the plans were poor and confused, but the flexibility of design did allow a radical reshaping of the project after the MTR.

[57] The Maldives AFReP is discussed in this section because of its similarity with the other post-Tsunami interventions, although it was in support of a SIDS.
[58] The evaluative evidence on India PTSLP originates from the IOE-led Country Programme Evaluation published in 2016. Although the programme is still operational and has reportedly made significant progress, the information provided could not be taken into account as not part of an IOE evaluation.

Targeting

150. In all cases there was a high degree of dependence on self-selection, tsunami victims and others coming forward for assistance. In addition, government records and local government agencies were used to further identify deserving beneficiaries. Women, especially those who were household heads were targeted, and in India scheduled caste members and members of vulnerable groups, were also foci of interest. In India, young men were also targeted for training so that they could leave the fishing industry. Given the complex situation and the presence of many donors targeting the same population, how far IFAD's targeting was successful or not is unclear.

Effectiveness and rural poverty impact

151. The continually shifting objectives of these projects make it difficult to judge effectiveness. In general, a considerable amount of rural infrastructure was rehabilitated or constructed, including housing. As far as aquatic resources were concerned, fish markets were constructed and in India fish marketing groups formed.

152. All projects claimed to have adopted a participatory approach but there is evidence that the demands of local authorities and local elites were more determinant than the beneficiaries.

153. The Maldives PT-AFReP also supported an enhanced boat building code and the establishment of VMS, both with implications for safety.

154. Whilst people did benefit from the activities supported by these projects, it is less clear that the beneficiaries were the poor. There is no evidence that support for micro-entrepreneurs created jobs for the poor, and in some instances only the relatively wealthy could take advantage of the opportunities created by the projects. Any assessment was handicapped by the lack of M&E data.

Sustainability

155. Given the nature of these projects, sustainability was not an immediate issue in the planning stage. However, attempts were made to support sustainable coastal resource management and rural infrastructure. The most sustainable elements of these projects appeared to be housing and large infrastructure components such as fish markets, but fisheries management groups do not seem to have been sustainable. In India, only 50% of the Self-help groups established by the project were still active and only 28% of project trainees had found employment at the time of the CPE. In contrast, in the Maldives PT-AFReP, the work at institutional and policy levels did have a high degree of long-term viability.

Gender equality and women's empowerment

156. All the tsunami projects focused on women and gender and attempted to address issues concerning women's empowerment. In India women formed the majority of beneficiaries and were active in the project-supported self-help groups and fish marketing groups. In Sri Lanka widows and female headed households were targeted and there was explicit support for female empowerment. Unfortunately, no gender strategy was formulated, and interventions took place in a piece meal fashion.

Natural Resources Management and Climate Change

157. The stress in this group of projects was on the rehabilitation of infrastructure and income generating activities with the result that relatively little attention was paid to environmental issues including the management of aquatic resources. This tendency was exacerbated by the activities of other donors leaving little room for IFAD activities in this area.

Other Coastal Zone Projects

Relevance and design

158. This category covers a range of highly diverse projects. The key common element was the focus on poor populations, living in fragile environments and frequently isolated, both geographically and culturally from the 'mainland'. In most projects, attention was correctly given to climate change adaptation and sustainable natural resources management, either aquatic or land-based.

159. The thrust of all the projects appeared highly relevant to IFAD's and national policies, and broadly addressed some of the key challenges for raising people out of poverty in those difficult environments.

160. The three projects in Bangladesh, MIDPCR, CDSP and CCRIP, were all concerned with improving infrastructure to enable better market linkages and the development of market chains. The poor would benefit through employment on the infrastructure construction or through jobs created by improved value chains. The CPE was highly critical of this approach: too many resources had been devoted to infrastructure rather than capacity building; little research had been done on value chains and issues concerning workers' rights and health and safety were ignored.

161. The original design of Nigeria CBNRMP in the Niger River delta was minimal, activities being determined by community wishes. This led to a degree of confusion which was addressed by a major redesign introducing value chain development but at the cost of losing local community support. The design of the Indonesia CCDP was criticized for spreading resources too thinly over the archipelago, but the explicit objective was to explore potential forms of development in different contexts.

162. Most projects included components dealing with aquatic and coastal resources and planned fisheries or mariculture activities in addition to coastal management. But in Benin MDGSP and Nicaragua NICARIBE, virtually no mention was made of the availability of aquatic resources in the areas of intervention. No explanations could be found for this exclusion, nor was it possible to understand whether this represented a real missed opportunity at the level of design or reflected a lack of interest of the beneficiaries to engage in fisheries or related activities.

Targeting

163. In Bangladesh, areas were selected in terms of official poverty data. Within those areas, some groups (the landless, the destitute, very poor women) were targeted as potential labourers; other such as small farmers and traders were targeted as recipients of microcredit and support for entry into improved value chains. In Nigeria CBNRMP and Indonesia CCDP, the focus appeared to have been determined by government but within the focus areas participatory methods were used to select beneficiaries. Similar mixed approaches were followed in other projects as well.

164. Women were specifically mentioned in the definition of target groups in all projects, whereas youth were explicitly identified as part of the target group in Benin, Djibouti, Nicaragua and Nigeria.

165. There was little information on the success or otherwise of targeting. In Bangladesh MIDPCR, the non-poor were reportedly the major beneficiaries. In Nigeria, the CPE reported that the only group of beneficiaries identified were educated youth. Information on the degree of success in targeting is scarce. In the case of the Bangladesh MIDPCR all households involved in the project reportedly benefited but the non-poor benefited most. Documents from Indonesia CCDP, a non-evaluated project, indicate that the targeted poor did benefit, but otherwise available data indicate that targeting was unsuccessful. In Nigeria the CPE reported that the only group of beneficiaries of the CBNRMP consisted of educated youth.

Effectiveness and impacts

166. There is remarkably little information on how effective this group of projects was. In Bangladesh, it appears that all three projects achieved their objectives in terms of physical outputs and numbers of beneficiaries reached. What is less clear is how far these projects were successful in establishing effective value chains.

167. In the case of Bangladesh MIDPCR, the PCR data are contradictory and there is little systematic evidence. Elsewhere the data are equally sparse. In Nigeria the project had little effect on the 'core poor' who remained as poor as their counterparts outside the project area. In Indonesia the MTR reported that there was a general trend of rising incomes and a reduction in extreme poverty but there was no comparable data from non-project areas.

168. As far as nutrition and food security are concerned, again there is a shortage of evidence. There may have been an improvement in Bangladesh; it may have improved in Nigeria but how far this was due to project activities is unclear.

Sustainability

169. Where there is evidence, it appears that sustainability was addressed in design and implementation in most projects. In Bangladesh, all three projects considered sustainability at the planning stage. However, given the focus on infrastructure in these projects, how sustainable those elements focusing on rural enterprise and micro-entrepreneurs would be is problematic.

Gender equality and women's empowerment

170. Mixed information and results. Gender was a central component in all three Bangladesh projects. The PCRV for Bangladesh MIDPCR claimed that women benefited through employment as labourers and as members of women-only NGOs, but no quantitative data were supplied. Bangladesh CDSP developed a gender action plan, supported efforts to ensure that land titles names both husband and wife, and supplied training in aquaculture.

171. Elsewhere, gender was an element in project design although how far this interest was maintained during implementation is not always clear. The Indonesia CCDP appeared to have made a major effort, with women representing 90 per cent of the members of savings groups and were also active in aquaculture.

Natural Resources Management and Climate Change

172. Overall, reasonable level of attention. In Bangladesh, MIDPCR had an implicit environmental focus but devoted few resources to these issues. According to the CPE, both CDSP and CCRIP were more explicitly focused on environmental and natural resource management issues as well as climate change issues. The CCRIP focused on managing the impact of climate change whilst CDSP supported the establishment of sustainable development within the context of climate change and the impacts this had on the chars.

173. The Vietnam AMD and the Benin MDGSP were centrally concerned with the effects of climate change whilst this was a major background theme in the Philippines FishCORAL and in Djibouti PRAREV. These and Indonesia CCDP were also concerned with natural resource, including aquatic resources, management. For instance, the CCDP established 105 coastal resource management groups.

174. In the Nigeria CBNRMP, there were some minor elements concerned with natural resource management including potential support for an indigenous system of river fishery management, but this was not realised. The CPE reported that the extension of aquaculture reduced the use of more destructive forms of agriculture but that the shift in project strategy towards value chains reduced the space for a sustained emphasis on a more balanced rural development approach.

Concluding observations

175. The Coastal Zone resources group included very diverse projects, designed and implemented with very little sense that the areas of intervention were special zones straddling across ecosystem and cultures, that require somewhat diverse strategies. Among these, the Post-tsunami projects were an exception in IFAD's portfolio. According to their evaluations, these projects had only limited effectiveness, with the exception of the project in the Maldives which, thanks to the high flexibility in-built in its design, eventually led to positive outcomes for the fishing industry in the country.

176. Currently on-going or just completed projects were strongly focused on adaptation to climate change and developing resilience of coastal populations. However, only Indonesia CCDP and Philippines FishCoral PDRs explicitly aimed at introducing alternative livelihoods for fishing communities to reduce pressure on aquatic resources.

C. Freshwater capture fisheries

177. The Synthesis identified 9 projects approved by IFAD since 1983, that included activities associated with freshwater capture fisheries. Of these, 8 were reviewed, 5 of which had been evaluated, all listed in Table 8 below. Eight of the nine projects were implemented in countries in the WCA region, and one in ESA.

Table 8
IFAD Freshwater capture fisheries projects, by year of approval

IFAD's Board approval, year	*Freshwater capture fisheries projects, evaluated*	*Freshwater capture fisheries projects, non-evaluated*
2001	Benin Support Programme to the Participatory Development of Artisanal Fisheries – PADPPA, High focus	
2004	Congo Projet de Développement Rural dans les Départements des Plateaux, de la Cuvette et de la Cuvette Ouest – PRODER I, Low focus ; DRC Programme de relance agricole dans la province de l'Equateur – PRAPE, Low focus	
2005	DRC Programme de réhabilitation de l'agriculture dans le district de la Tshopo Province orientale – PRAPO, Low focus	Benin Rural Development Support Programme – RDSP, Low focus
2012		Congo Agricultural Value Chains Development Programme – PADEF, Low focus
2015	Angola Artisanal Fisheries and Aquaculture Project – AFAP, High focus	Congo Projet de développement de la pêche et de l'aquaculture continentales – PDPAC, High focus

Source: IFAD corporate information systems

Relevance and design

178. High level of relevance. All the projects concerned with freshwater capture fisheries were relevant to IFAD's and the host governments' general policies. Throughout there was a strong poverty focus, and interventions in inland fishing were seen as means of increasing nutrition or incomes in Angola and Congo, assisting in recovery from armed conflict in the case of DRC PRAPE, or dealing with issues caused by environmental degradation in Benin. In five cases, freshwater fishing was one component in an array of activities. In Angola AFAP and Congo PD-PAC, inland fishing was coupled with aquaculture, and in Benin PADPPA the project addressed both freshwater and marine capture fishing.

179. Fisheries as an add-on component. With the exception of Benin PADPPA, Angola AFAP and Congo PDPAC, the projects as a whole, were concerned primarily with agriculture. Aquatic matters were marginal and little attempt appears to have been made to integrate the various activities. Projects were designed around a number

of themes: community development, credit and financial services, sustainable resource management, development of markets and, in the most recent cases of Angola AFAP and Congo PDPAC, value chain development.

180. Several issues were apparent in the design of these projects. Local capacity was over-estimated (Angola AFAP, DRC PRAPO and PRAPE) and in Angola AFAP, the project was designed and launched without sufficient knowledge of the area. In similar circumstances, the Synthesis considers that the phased approach adopted by IFAD in the projects in Congo, PADEF and PDPAC, may well have been more suited.

Targeting

181. The basis of targeting was in the first instance geographical location. Within the selected areas various categories of people were identified as beneficiaries. In Congo PADEF, this consisted of the 'economically active poor' plus a degree of self-targeting. In DRC PRAPO, specific ethnic groups and other marginal groups such as HIV/AIDS and war orphans were targeted. In most, the final choice of beneficiaries appears to have been in the hands of the local administration.

182. Overall, there were no signs of a clear logic underlying how beneficiary groups were to be targeted. Women were, to a greater or lesser extent, targeted in all projects, whereas youths were only mentioned as potential beneficiaries in projects approved after 2005.

183. Participation was frequently mentioned as an approach to inform both project design and targeting, but there is little evidence that participatory approaches were actually used. Information available suggests that targeting was not successful. Multiple reasons may have contributed; one suggestion is that projects tried to cover too wide a geographical area.

Effectiveness

184. Two of the evaluated projects failed to achieve their objectives. In the case of Benin PADPPA, this was apparently due to the high dispersion of the project and lack of a clear focus. In DRC PRAPO, a few activities were implemented, some of which environmentally damaging as discussed below, but no lasting results were achieved. Conversely, DRC PRAPE succeeded in improving communications, supplying credit and delivering fishing gears.

185. Of the three projects approved since 2005 only Angola AFAP has been evaluated, and that was very early in the project's life. The relevant CSPE indicates that the project appeared to be far from achieving its objectives largely due to poor design and management and recommended refocusing the project to operate as a pilot initiative before scaling-up in future if and as appropriate.

186. As in other cases, it is reported that project management improved after IFAD took over direct control of the projects, but even so, the frequent changes in the CPM coupled with design flaws created issues in DRC PRAPE.

187. A particular feature of the freshwater components in broader projects was their limited visibility in the overall thrust of most projects, which was then reflected in the very limited attention during implementation to this area of work. The result was that the freshwater fisheries components disappeared from supervision reports, PCRs and evaluations. In at least one case, DRC PRAPO, the Project Management Unit did not include any expertise in fisheries, and this may have been a more common situation than reported.

Rural poverty impact

188. The evaluated projects had only limited effects on rural incomes. Benin PADPPA reported minimal improvements in incomes but as fish catches declined, nutrition and food security may have worsened. DRC PRAPE, on the contrary, was reportedly more successful with fisheries attracting new entrants and existing fishermen diversifying their livelihood strategies. Some improvements were also noted in food security and nutrition.

Sustainability of benefits

189. All projects addressed sustainability at the design stage, but it is less clear that sustainability issues were salient during implementation. In the case of Benin RDSP, delays in implementation put the results of the project at risk. In Congo PRODER I and DRC PRAPO, the lack of decent roads restricted the potential for marketing of aquatic products. In DRC PRAPE, the social infrastructure to support producer organisations was ineffective.

Gender equality

190. All projects included women, and to a lesser extent incorporated a general gender perspective, in project design. In at least two cases, Congo PRODER I and Angola AFAP, a target for women to form 50% of participants was established. DRC PRAPE in turn aimed to mainstream gender, raise gender awareness and involve women as key actors in decision making.

191. In practice, performance did not always live up to expectations and gender equity was generally ignored in implementation, with a few exceptions. Benin PADPPA was relatively successful. Here women benefited from various project activities although there was less success in raising the number of women in decision-making roles. DRC PRAPE established women-only fishmonger organisations which aided savings and credit activities. And in Djibouti PDMM, support was given to women's groups of various sorts including those considered particularly vulnerable. In addition, there was assistance to improve schooling for girls.

192. All projects however were relatively unsuccessful in empowering women and encouraging gender equality. Given the contexts in which they were working it would be perhaps unreasonable to expect more than what was done.

Environment and natural resources management, and adaptation to climate change

193. With the exceptions of Benin PADPPA and Congo PDPAC, at design stage none of the projects gave attention to natural resources management or climate change adaptation.

194. Results were mixed. In DRC PRAPO, an extreme negative case, the project inadvertently encouraged damaging fishing and agricultural practices. Elsewhere, the picture was more positive although interest in improving natural resource management and reducing damaging fishing practices was still rather limited (Benin PADPPA, DRC PRAPE).

Concluding observations

195. Freshwater fisheries is typically neglected by most organizations when dealing with aquatic resources, and IFAD has been no exception in this, with this group being the smallest in terms of number of projects, and a slight majority of them (55 per cent) assessed as having Low focus on aquatic resources.

196. Positive outcomes in these projects appeared to be an exception. In the case of multi-sectoral projects, the freshwater component became invisible early on in projects' lives; and when the focus of the intervention was on freshwater fisheries,

the projects were poorly designed and implemented. As is the case with aquaculture, the recently started Congo PD-PAC appears to be framed by a better project design and if efforts to re-focus AFAP in Angola are successful, these projects may pave the way to a new generation of more successful IFAD-supported projects in this sub-sector.

D. Marine capture fisheries

197. The Synthesis identified 21 projects approved by IFAD since 1988, that included marine capture fisheries in their thrust. Of these, 19 were reviewed,[59] 11 of which had been evaluated. Among the 21 projects, 9 were approved in the NEN region, seven in ESA, three in APR and two in WCA. Table 9 below indicates the projects taken into account in this section.

Table 9
IFAD Marine capture fisheries projects, by year of approval

IFAD's Board approval, year	*Marine capture fisheries projects, evaluated*	*Marine capture fisheries projects, non-evaluated*
1988		Nigeria Artisanal Fisheries Development Project – AFDP, High focus
1989		Tanzania Smallholder Support Project in Zanzibar – SSP, Low focus; Yemen Agricultural Credit Project – ACP, Low focus
1990		Yemen Fourth Fisheries Development Project – FFDP, High focus
1992		Mauritania Banc d' Arguin Protected Area Management Project – BAPAMP, High focus
1993	Mozambique Nampula Artisanal Fisheries Project – NAFP, High focus	
1997	Angola Northern Fishing Communities Development Programme – PESNORTE, High focus	
1998	Philippines Western Mindanao Community Initiatives Project – WMCIP, Low focus	
1999	Yemen Al-Mahara Rural Development Project – AMRDP, Low focus	
2001	Philippines Northern Mindanao Community Initiatives and Resource Management Project – NMCIRMP, Low focus; Mozambique Sofala Bank Artisanal Fisheries Project – PPABS, High focus	
2002	Djibouti Projet de développement du microfinancement et de la microentreprise – PDMM, Low focus	
2010	Mozambique Artisanal Fisheries Promotion Project – ProPesca, High focus; Yemen Fisheries Investment Programme – FIP, High focus;	Eritrea Fisheries Development Project – FDP, High focus
2011		Pakistan Gwadar-Lasbela Livelihoods Support Project – LSP, Low focus
2012	Mozambique Coastal HIV/AIDS Prevention and Nutrition Improvement Project – CHAPANI, High focus	
2013	Mozambique Strengthening Artisanal Fishers' Resource Rights Project – PRODIRPA, High focus	
2016		Eritrea Fisheries Resources Management Programme – FReMP, High focus

Source: IFAD corporate information systems

[59] In the case of two projects, too little information was available to conduct any meaningful analysis

Relevance and design

198. In general, all the projects in this category were relevant to the policies of IFAD and host governments at the time of their formulation and aimed to improve the livelihoods of households which, to varying degrees, were dependent on marine fisheries in very poor communities. The projects in the Philippines and Yemen ACP also included farming households and community and agriculture development components. Angola PESNORTE and Philippines WMCIP were also designed to address post-conflict rehabilitation.

199. The way projects addressed poverty varied, in some cases based on questionable assumptions. Whereas Mozambique SBAFP and Mauritania BAPAMP were correctly oriented towards fisheries management and protecting artisanal fishers' interests in the face of expanding industrial fishing, often the underlying assumption was that increasing fish catches would result in improved incomes for fishing households. Only over time was attention given to sustainable management of fisheries resources, to fully and better utilising the catch and to reducing post-harvest losses. In the case of Djibouti PDMM, the project was primarily concerned with credit and ignored other factors generating poverty.

200. The primary objective of projects approved after 2010 was still the improvement of poor fishers' livelihoods, but the focus shifted to value chain development and resource management in Mozambique ProPesca, in both Eritrean projects and in Yemen FIP. Rights in fisheries resources were also addressed through Yemen FIP and the Mozambique PRODIRPA grant. In Mozambique, the interventions in this domain were also supported by attention to health, in particular HIV and AIDS issues, and nutrition through the CHAPANI grant.

201. With the exception of Mozambique NAFP, the early projects exhibit certain flaws in design. Common issues included: over-ambition, over-complicated designs that made them difficult to manage (Mozambique SBAFP, Philippines NMCIRMP and WMCIP); PDRs based on insufficient knowledge of the local fishing industry which led to the complexities of the local situation being underestimated (Angola PESNORTE and Mozambique SBAFP); and 'simplistic assumptions' underlying plans for implementing credit and extension services (Yemen AMRDP). In Djibouti PDMM the focus on credit rather than on a wider set of factors may have limited the project's potential to reduce poverty. The lack of a unifying framework for project activities was a common weakness.

202. In the most recently approved and evaluated projects, the focus on value chain made their design even more complex, as it was necessary to ensure that financial resources be available for fishers and processors in the case of Mozambique ProPesca, and a public-private partnership (PPP) to be established in the case of Yemen FIP. Three non-evaluated projects (Eritrea FDP; Eritrea FReMP; Pakistan LSP) also stressed value chain development, but the project designs did not elaborate on how such an approach would benefit the poor rather than those who already had assets. Furthermore, effective credit systems were not in place in support of any of these projects.

203. Only three projects, Mozambique SBAFP, Pakistan LSP and Yemen FIP, had a component at design concerned with Safety at Sea, an increasingly important issue in development interventions in marine fisheries.

Targeting

204. In the earlier projects, targeting was vague and unclear, which tended to lead to elite capture and for the 'enterprising poor' to be the main beneficiaries as was the case in Angola PESNORTE and Philippines WMCIP respectively.

205. Projects approved since 2000 typically privileged targeting based on a geographical basis. Generally, project sites were chosen on the basis of

government data on levels of poverty, and an attempt was made to focus on the most impoverished groups. However, given the pre-requisites of capture fisheries, certain sites were obviously selected. For example, the string of projects in Mozambique focused on several 'concentration areas' and 'growth poles'.

206. Within the geographically selected sites, selection of beneficiaries varied greatly. A focus on 'promising entrepreneurs' was a feature of several projects, including Djibouti PDMM, the Eritrean projects and Pakistan LSP. In addition, most projects also included an element of self-targeting which appeared to open up the possibility that the poorest segments of the population could participate.

207. Women, especially heads-of-households, were frequently identified as potential beneficiaries although this was complicated the greater the stress on the fishing component of the project. Youth were explicitly included as a 'target' in Yemen PDMM, in the Eritrean projects and in Mozambique CHAPANI projects, all approved after 2010.

Effectiveness

208. Projects in this category were generally effective in terms of meeting targets, with the exception of Angola PESNORTE and Yemen FIP, which did not achieve results largely due to the resumption or an outburst of civil conflict.

209. Activities aimed at improving fishing techniques and post-harvest processes through capacity development of stakeholders were carried out in all projects. In Philippines WMICP marine reserves were also established and both projects in the Philippines were successful in establishing fishers' groups that became involved in planning and decision making, partly by building on pre-existing social institutions. In NMCIRMP, the most recent of the two, community demands led to adjustments in project activities to better match local needs.

210. The projects in Mozambique built roads, markets and social infrastructures, although it was argued that in SBAFP, too much emphasis was given to social infrastructures at the cost of more focus on improving fishing and processing activities. Problems in the supply of inputs such as ice affected the quality of catches and their processing. The CSPE in Mozambique also argued that the markets of first sale established by ProPesca were not being used, possibly due to a flaw in the rationale underpinning this type of investment.

211. A recurrent challenge in Mozambique and Yemen was the establishment of rural financial services to support investments in the fisheries value chains. Although the establishment of micro-scale savings and credit groups in Mozambique was highly successful, significant delays were incurred in efforts to establish sustainable links between fishers, processors and traders and national financial institutions due to problems beyond the control of the most recent ProPesca. Also, group formation and operations concerning the management of markets and the sustainable management of natural resources were lagging behind the rest of the project at the time of the evaluation, approximately 18 months before project completion.

212. Of the projects addressing safety at sea, Yemen FIP focused on regulation and possibly an insurance scheme but was overtaken by events and did not make any progress. Pakistan LSP distributed an unknown number of 'safety at sea' kits and Mozambique SBAFP achieved some capacity development of fishers' groups. Within ProPesca, the issue had been resumed by testing the use of some equipment such as GPS in a few fishing boats.

213. The development of fisheries management plans was addressed by both evaluated (Mozambique ProPesca and PRODIRPA and Yemen FIP; Mozambique PRODIRPA) and non-evaluated projects (Eritrea FDP and FReMP; Pakistan LSP). However, it appeared that no project made any significant progress in this area. In this respect, the lack of commitment and interest shown by national

governmental organizations in establishing the plans through a participatory process was a major obstacle, as emerged in Mozambique and Pakistan.

214. IFAD's performance was generally satisfactory except in the case of Angola PESNORTE where it failed to ensure that the Project Management Unit (PMU) was effective. The shift in supervisory responsibilities from UNOPS to IFAD reportedly led to improvements in project management.

Rural poverty impact

215. Available information on the impacts of projects on poverty, food and nutrition security, is extremely scarce and suggests that projects did have positive, although limited, effects.

216. Rural incomes appear to have risen and levels of nutrition improved in two of the earliest projects, Mozambique NAFP and Philippines WMCIP, but the data are not robust. In Yemen AMRDP it was assumed that the threefold rise in fish catches had a positive impact on local poverty and nutrition, but no direct evidence was presented. In Angola PESNORTE there may have been an increase in indebtedness as a result of project activities.

217. For projects approved between 2000 and 2009, the data available about impacts were positive but somewhat unclear. The Impact Evaluation of Mozambique SBAFP found that incomes and food security in the project communities had increased slightly more than in control communities. Similar impacts were noted in Philippines NMCIRMP, but how far this was the result of project activities is unclear. And through Djibouti PDMM, where the focus was on credit, only one loan was made to a fishing household.

218. For the most recent projects, data are very thin. In the case of Mozambique ProPesca, which focused on areas and groups with the greatest production and marketing potential, there was no evidence at the time of the evaluation that project activities had led to a reduction in poverty in the targeted communities.

219. More information is available on the Mozambique CHAPANI. Its evaluation report stated that 70 to 80 percent of the beneficiaries had improved their nutritional status and 80 percent acquired the necessary HIV prevention knowledge to adapt correct behaviour (condom use, HIV testing and treatment adherence, avoiding concurrent multiple partnership). The later CSPE found that improved nutritional practices were still used for children, though not for the adult population; and no information was available on changes in the incidence rate of new HIV cases.

Sustainability of Benefits

220. In the earlier projects, sustainability was not a central theme either in project design or implementation and evaluations were generally pessimistic about the long-term viability of activities or impacts. In Mozambique NAFP there was some evidence that government capacity may have been improved with long term consequences, but elsewhere sustainability was seen as 'fragile' (Yemen AMRDP) or threatened by a lack of local capacity, as reported for Angola PESNORTE and Philippines WMCIP.

221. After 2000, greater attention was paid to long term issues of sustainability especially through involving local government (Philippines NMCIRMP) or attending to the legal framework (Djibouti PDMM). The non-evaluated projects incorporated sustainability issues from the design stage onwards. In both Eritrean projects, long term sustainability from environmental, social and political angles was a major theme, and Pakistan LSP also included a sustainability plan in the PDR.

222. In Mozambique, however, the picture was mixed. After SBAFP, the local governments had not been able to take on responsibility for infrastructure or

supporting local community organisations, in part due to the limited progress at the national level in devolving resources and responsibilities. ProPesca had been implemented from within the national organization responsible for artisanal fisheries development, hence guaranteeing the lessons-learning aspect of the project. However, prospects for the sustainability of the fisheries management plans were low because of delays in stock assessments. Efforts to develop a value chain were not positive mainly due to the delays in establishing rural finance services. Also, the follow-up to CHAPANI looked highly at risk as it depended on the willingness of volunteers to continue the advocacy and awareness-raising work on nutrition and HIV and AIDS prevention.

Gender equality and women's empowerment

223. All the early projects had a gender component, although in Angola PESNORTE, women were ignored until the MTR. Whilst projects aimed to benefit women, this mostly consisted of women's participation in savings and credit groups and literacy courses, which at best resulted in a compartmentalised perspective on gender and development which did little to modify gender relations.

224. Over time, integration of gender issues improved, with projects becoming more gender aware and giving priority to women, including very ambitious gender components in the case of the two Eritrean projects. In Djibouti PDMM, women's access to credit did have a positive impact on their position both within society and within households. In the case of Mozambique CHAPANI, the project was concerned with health and nutrition and had a very strong gender component even though it appears that most field officers and all local staff were male. In Mozambique ProPesca, a gender specialist was part of the project team and a gender and social inclusion plan was drawn up, although no significant progress had been made by the time of the evaluation.

225. On a less positive note, Mozambique SBAFP failed to factor in women's empowerment and gender relations, whilst Yemen FIP and Pakistan LSP approached gender as a marginal topic. Also, in the case of Philippines NMCIRMP, it is not clear how far the high degree of female participation and involvement in project backed activities were the result of the project or the result of pre-existing social and cultural factors.

Environment and natural resources management, and adaptation to climate change

226. Sustainable management of natural resources was a theme in some of the evaluated projects, typically focusing on encouraging more sustainable fishing practices. Activities in the Philippines projects included the rehabilitation of mangroves and the establishment of artificial reefs and of a marine sanctuary. The PPA for Philippines NMCIRMP also reported 'an awareness of climate change' but whether this was due to project activities, is unclear.

227. The string of Mozambique projects aimed to support the establishment of co-management for fisheries. This was eventually delegated to PRODIRPA to enhance focus and attention on this theme. By the time of the evaluation, no progress had been made in this area. Similarly, Yemen AMRDP attempted to establish a 'participatory monitoring' scheme to reduce the incidence of Illegal, Unreported and Unregulated fishing (IUU) and provide the basis for fisheries management plans, but there is no evidence that this was successful.

228. More recent projects have also addressed climate change in their designs, but no evidence is available of how successful this has been.

Concluding observations

229. The marine fisheries sub-sector had the highest share of High focus projects, at 62 per cent. Also, compared with other sub-sectors, IFAD appears to have developed

longer term engagements in specific countries, for instance Eritrea, Mozambique and Yemen, than for other sub-sectors. This might be related to the development of relatively strong partnerships with respective national organizations, which persists over time, despite the high rotation of CPMs.

230. Projects in this sub-sector appear to have been slightly more effective than those in other sub-sectors, A possible explanation is that sectoral experts were involved in both design and implementation, which was not always the case for aquaculture or fresh-water fisheries, and this contributed to improved performance.

E. Small Island Developing States

231. The Synthesis identified 21 loan projects and two self-standing grants approved by IFAD since 1979,[60] in favour of Small Island Developing States which address aquatic and coastal zone resources. Of these, 17 were reviewed, 7 of which had been evaluated. Of the 21 projects, 11 were in favour of SIDS located in the Caribbean and the Atlantic Ocean; 9 in the Indian Ocean; and only one in the Pacific. Table 10 below lists the projects analysed in this section.

Table 10
IFAD projects in Small Island Developing States addressing aquatic and coastal zone resources, by year of approval

IFAD's Board approval, year	*Aquatic and coastal zone resources projects in SIDS, evaluated*	*Aquatic and coastal zone resources projects in SIDS, non-evaluated*
1982		Maldives Second Fisheries Project – SFP, High focus
1989		Maldives Atolls Credit and Development Banking Project – ACDBP, Low focus
1990		São Tomé and Principe/STP Second Artisanal Fisheries Development Project – SAFDP, High focus
1995		Maldives Southern Atolls Development Project – SADP, Low focus
1999	Cape Verde Rural Poverty Alleviation Programme – PLPR, Low focus; Mauritius Rural Diversification Programme – RDP, Low focus	
2001	Grenada Rural Enterprise Project – GREP, Low focus; São Tomé and Principe/STP Participatory Smallholder Agriculture and Artisanal Fisheries Development – PAPAFPA, Low focus	
2007	Comoros National Programme for Sustainable Human Development – PNDHD, Low focus; Guinea Bissau Rural Rehabilitation and Community Development Project – RRCDP, Low focus	
2008	Mauritius Marine and Agricultural Resources Support Programme – MARS, High focus	Maldives Fisheries and Agriculture Diversification Programme – FADiP, High focus
2010		Grenada Market Access and Rural Enterprise Development Programme – MAREDP, Low focus
2012		Cape Verde Rural Socio-economic Opportunities Programme – POSER, Low focus; Maldives; Mariculture Enterprise Development Project, MEDeP, High focus

[60] This figure does not include the Post-tsunami intervention in the Maldives, approved in 2005, which is discussed in the section Coastal Zone Resources with three other projects approved in the wake of the December 2004 Indian Ocean Tsunami.

2013	Seychelles Competitive Local Innovations for Small-Scale Agriculture Project – CLISSA, High focus
2015	Guinea Bissau Economic Development Project for the Southern Regions – PADES, Low focus

Source: IFAD corporate information systems

Relevance and design

232. Whilst projects were in line with IFAD policies and those of the host governments, the degree to which they were relevant to local needs and to poverty alleviation varied. Most projects were directly concerned with poverty. In Mauritius MARS and in Seychelles CLISSA, the focus was on the impacts of structural change on those 'left behind'. Cape Verde POSER and Grenada MAREDP were specifically concerned with youth unemployment whilst Comoros PNDHD and Cape Verde PLPR were concerned with poverty reduction in the context of local poverty reduction strategies. However, the string of projects in the Maldives had only a tenuous relation to poverty reduction and tended to favour middle income groups.

233. What also varied was the extent of the focus on aquatic and coastal resources: only six out of the 17 assessed projects had a High focus on aquatic resources, namely SFP, FADiP and MeDEP in the Maldives, MARS in Mauritius, SAFDP in São Tomé and Principe and CLISSA in Seychelles. All others included marine fisheries and/or mariculture as a component, either by including fishing households among the target group, as was the case for Cape Verde PLPR, Grenada GREP and MAREDP, Maldives ACDBP and SADP, or by including 'fisheries management' among the projects' activities, as for example in Comoros PNDHD.

234. As discussed in the context of Freshwater capture fisheries and some Coastal Zone resources projects, so also in the case of SIDS projects, aquatic resources were at times totally or largely 'invisible'. A case in point was the Guinea Bissau RRDCP, where the project-supported 'mangrove rice' farming, but in the project documents there is virtually no mention of aquatic resources, with the exception of plans to distribute 24 'fishing kits'.

235. Most projects took account of IFAD's previous experience and most considered the potential of aquatic resources in reducing poverty, although there were exceptions such as in Cape Verde POSER and in Guinea Bissau RRCDP and PADES. Prior to 2000, the main stress was on increasing the output from marine fisheries, but after 2000 the focus shifted to a certain extent towards a more 'business-oriented' approach, as in Grenada GREP and MAREDP and value chain development as in Maldives FADiP and MEDeP and in São Tomé and Principe PAPAFPA and SAFDP.

236. One weakness running through a number of these projects was how project activities would contribute to poverty alleviation. Examples include: the lack of consideration of how increased catches would benefit the poor in Maldives SFP; the focus on micro-enterprise development when the major constraints on development had been identified as poor communications and small markets in Cape Verde PLPR; and no market analysis for the sort of products the project was encouraging in the Maldives FADiP.

237. There were also weaknesses in the analysis of the local context. In Grenada, the two projects worked on the assumption that young men wanted rural jobs: they did not. In Mauritius MARS, there was a similar lack of interest in rural work amongst putative beneficiaries. In STP PAPAFPA, the difficulties of establishing cooperatives were grossly underestimated given the 'individualistic attitude' of fishers and again in Grenada GREP, there was no recognition of the potential

contradictions between community participation and the 'business oriented approach' required of individuals and groups.

238. As far as credit and the capacities of local institutions were concerned, there were similar problems. At least four projects - Grenada GREP, Guinea Bissau RRCDP, Maldives FADiP and Mauritius RDP - over-estimated local capacities whilst in Mauritius RDP the situation was aggravated by the project ignoring previous problems with microcredit and in addition charging 8 per cent on loans when they were available from the government at 3 per cent.

239. There were a few attempts to develop an integrated approach to aquatic resources management. STP PAPAFPA had plans to produce a detailed review of the whole fisheries sector but this was dropped during implementation. In two projects in the Maldives, FADiP and MEDeP, there was some attempt at integrating various project elements whilst in Comoros PNDHD, a parallel GEF-funded project did develop an ecosystem approach to resource management.

240. Safety at Sea was part of training plans in three projects (Grenada GREP; Mauritius RDP; STP PAPAFPA) but the Synthesis found no evidence that these trainings actually took place.

Targeting

241. Whilst in most projects poverty was an important element in targeting beneficiaries, there were exceptions. In the Maldives SFP and ACDBP, the productive capacities of the target group rather than their relative poverty were deemed important and the details of how particular beneficiaries were to be chosen was unclear.

242. In all except the Maldives SFP, women were explicitly targeted and in some cases (Cape Verde POSER; Maldives FADiP) quotas were set for female participation. After 2007, all projects also targeted youth and in Cape Verde POSER it was planned that they should form 40% of beneficiaries. Projects in Grenada targeted youth as their primary beneficiaries.

243. Targeting appears to have been broadly successful although there were some issues. In the case of Comoros PNDHD, the process was 'complex and dispersed' and some of the targeted households were too poor to take advantage of project support. In Guinea Bissau RRCDP the project failed to reach the very poorest of the target population. In Mauritius MARS, the project only managed to reach 3.5 per cent of planned beneficiaries, the result of extremely poor planning and inefficient project management.

244. It was frequently claimed that the targeting process was, or was planned to be, participatory, for instance in Cape Verde PLPR and POSER, in Comoros PNDHD and in STP PAPAFPA, but what this involved was not specified. Evidence from evaluations showed that in this respect, projects were generally less successful in establishing fishers' groups compared to farmers' groups and cooperatives.

Effectiveness

245. Whilst most projects in this sector achieved their objectives, those components concerned with aquatic resources were in general less successful than other components. Reasons for this varied. In Mauritius RDP there was insufficient interest in Fish Aggregating Devices (FADs) whilst financial constraints led to a reduction in the number of patrol boats supported by the project falling from six to two. In Grenada MAREDP, there were only thirty beneficiaries from the fishing component, although reportedly their commitment was high.

246. The available evidence indicates that project implementation improved after IFAD took over direct management. Even so there were some major issues, including in

some instances a remarkably fast turnover of project staff and little attention being paid to the fisheries sector which suggests a lack of relevant skills in IFAD.

Poverty Impact

247. There is very little evidence concerning the impact of these projects on rural poverty, food security or nutrition. In one of the few cases where some evidence concerning poverty is available, the STP PAPAFPA, the impact study did not cover fishers and as far as food security was concerned, indicated that fishers had not benefited to the extent of other groups. In the case of Comoros PNDHD, the PCRV indicated that incomes and assets had risen and that food security had improved. In other cases, both evaluated and non-evaluated, the data are either lacking or anecdotal.

Sustainability

248. Before 2010, there was little mention of sustainability but after 2010 sustainability became a major theme in all projects. There is very little evidence as to how far the results of interventions were sustainable. In the case of Cape Verde PLPR, only 50 per cent of beneficiaries were still active in activities promoted by the project at the time of the PCRV. In others (Mauritius RDP; STP PAPAFPA) the prognosis was that the benefits introduced by the projects would not last.

Gender

249. Coverage of gender and women was weak and rather bland. All but the Maldives SFP included women in project design, and a number (Cape Verde PLPR, Comoros PNDHD, Grenada GREP) developed gender strategies. Most of the evaluated projects reported that women had benefited from the interventions and in some (Cape Verde PLPR; Grenada GREP) formed the majority of beneficiaries.

250. However, the projects failed to address issues concerning the transformation of gender relations as distinct from activities oriented towards women. There is no evidence that projects have empowered women and in the case of Mauritius RDP where women were relatively powerful, the PPA made it clear that this has little to do with project activities but with the pre-existing local situation.

Natural Resource Management and Climate Change

251. Except for the Cape Verde PLPR, NRM was a component in all project designs, and after 2000 climate change was usually mentioned. In two cases (Comoros PNDHD; Mauritius RDP) environmental issues were core to project design and, as far as fisheries were concerned, aimed to introduce sustainable management of the resource.

252. What is more difficult to determine is how successful projects were in achieving their environmental goals. In the case of Comoros PNDHD, one of the issues to be addressed was destructive fishing, but although there is some evidence as to the project's environmental record on land, there is no mention of the project's impact on marine environments. This was presumably because marine issues were hived off to a GEF-funded project.

253. In Mauritius RDP, the PPA judged that the impact on lagoon resources was 'minimal' but was partially effective in modifying marine fishing practices. In an unevaluated successor project (Mauritius MARS), even though NRM and climate change were key issues, plans for environmental impact studies to underpin management plans were never carried out.

Concluding observations

254. Projects in this group were highly heterogeneous, and only a third of these had a High focus on aquatic resources. In addition, very few had been evaluated by the time of the ES, and evidence about performance was in general thin.

255. When comparing the profile of projects approved in these countries with the priorities established in the IFAD Approach Paper to SIDS, what emerges is that fisheries and aquatic resources, despite this was the first sector mentioned in the Approach Paper, were a priority only in the Indian Ocean SIDS. Most projects were approved in the domain of agricultural development, while natural resources management received sufficient attention, at least in project design.

F. Synthesis of findings

256. This sub-section analyses the findings discussed above by criterion across all sub-sectors.

257. High relevance to IFAD and national policies. All the evaluations of aquatic resource-relevant projects concluded that the interventions had been highly relevant to the policies and plans of national governments and to IFAD's strategic frameworks and policies. In the case of non-evaluated projects, whilst taking into account that PDRs logically stressed the relevance of projects to national and IFAD policies, the Synthesis concluded that all projects were indeed relevant at these levels.

258. Mixed relevance with regards to poverty alleviation, as targeted participants were not always from the poorest sections of rural population. Whilst all projects aimed to reduce poverty, their relevance to the needs of those sections of the rural poor who depended on aquatic resources for their livelihoods was sometimes questionable and projects addressing fisheries or aquaculture did not always target IFAD's traditional target groups, i.e. the poorer sections of rural populations.

259. When attempts were made to address the poorest segments of society, the approaches adopted were not always conducive to long-term poverty alleviation. For example, the assumption that temporary labour opportunities in infrastructure building was sufficient per-se to raise people out of poverty was not substantiated by results. At a minimum, this should have been part of a broader intervention addressing capacity development, rural micro-finance, and alternative livelihoods. It is thus arguable that a focus on enhancing food security and nutrition or on strengthening access to services would have been more effective and sustainable. In fact, this underlies recent work on the 'mola' fishery in Bangladesh which has provided opportunities for very poor households to improve their food and nutrition security and enhance their income generating opportunities.

260. No evidence of trickle-down effects. This Synthesis did not find evidence of the expected positive trickle-down effects on poverty reduction in small-scale fisheries and aquaculture. Reliance on aquatic resources to generate incomes has tended to favour those who have at least some productive resources, and the highly perishable nature of fish encourages a market-oriented production. The tendency for interventions to by-pass the very poor was reinforced by changes at the corporate level which increasingly focused on the 'active poor' and value chain development. These approaches assumed that supporting small-scale entrepreneurs would lead to rising aggregate incomes, increased economic activity and rising demand for aquatic products which would eventually benefit poorer households and groups through employment creation. However, the mechanisms and the conditions through which these dynamics could work were not well articulated at design and even less during implementation. Opportunities to integrate fish production either from capture fisheries or aquaculture into more integrated development approaches, for example the introduction of more sustainable production and processing practices and strengthening food and nutrition security, were missed.

261. Limited context analysis at design. Positive overall relevance was often undermined by a lack of sufficient analysis at design stage of the local context and

an over-estimation of the local capacity for implementation. This led to over-simplistic assumptions about local dynamics and issues, and inappropriate solutions to perceived problems. The growing focus of IFAD on value chain approaches required more complex rural financial services, which in turn demanded more complicated interventions and more sophisticated understandings of the local context, where the contextual analysis should have taken into account all trade-offs involved. However, these projects were not supported by more and/or specific technical assistance to Project Coordinators and PMUs, and/or by closer supervision.

262. Complicated project design. Another related weakness was the approval of projects consisting of different components that were not well integrated into the overall framework and that made implementation particularly challenging. This was particularly apparent where a component or sub-set of activities addressing aquatic resources was 'added-on' to a broader intervention, a frequent feature for projects addressing freshwater fisheries and aquaculture. In these cases, more often than not the aquatic resources-focused work was less successful or was simply dropped during project implementation.

263. Many projects included major infrastructure and rural financial services components which were seen as essential elements in triggering progress towards poverty reduction goals. However, building or establishing these components typically absorbed much of the financial, temporal and organizational resources allocated to projects and often reached completion very late in projects' lives. By then, no time was left for supporting aquatic producers and processors to take advantage of project investments.

264. With regards to strategic relevance, the Synthesis could not assess whether the decisions made by IFAD and Governments to utilise aquatic resources as a means of achieving poverty reduction were always the most relevant at that particular time in that specific country. Arguably, IFAD strategic intelligence during project identification and design should have been the guarantor of relevance. The decision in the Pacific SIDS to focus on agriculture and nutrition rather than on aquatic resources because the former is where IFAD could bring added value, is a case in point. However, the Synthesis also notes that limitations in the knowledge and analysis of local contexts, have led to poorly informed project designs in a number of cases.

265. Detailed targeting with limited follow-up and monitoring. As required in IFAD's projects, targeting was often highly detailed in PDRs and based on a mix of geographic, poverty and self-selection criteria. Women and women-headed households were typically among the priority groups, the exceptions being some of the earliest projects. Attention to youth as a specific target group varied. Whilst some of the earlier projects in the period covered by this synthesis did address issues concerning youth, it was only in later years that this group became a standard element in project targeting. Participatory approaches were generally part of targeting strategies, although the extent to which they were used was mixed and very often unclear. In general, PMUs and local authorities had very broad leeway in deciding who would be project beneficiaries and no systematic monitoring data were produced by projects which would allow a judgement of how successful targeting had been.

266. Mixed results on the effectiveness and impacts of aquatic resources-relevant work. Projects suffered from weaknesses in design and when multiple sectors were targeted, components addressing aquatic resources tended to lag behind or disappear completely from project reports and presumably implementation. In High Focus projects, however, activities aimed at improving fishing techniques and post-harvest processes through capacity development of stakeholders were typically carried out and led to some positive results. Also, roads

and markets were built and people in general largely benefitted from the roads. The use of ice for better conservation of fish on board and on land slowly diffused partly as a result of IFAD-supported projects and over time, challenges to the production and distribution of ice decreased. Less evidence is available on results in terms of improved processing and marketing and in improving access for fishers and fishmongers to suitable rural financial services.

267. Limited data about impacts on poverty. Overall, data on the impact of IFAD's activities on poverty in the aquatic sector are remarkably limited, and where they do exist there are questions as to reliability. Whilst there are cases where project benefits did accrue to the poorest of the poor, for instance amongst beel fishers in Bangladesh and certain groups of marine capture fishers in Mozambique, in others the benefits were often of a temporary nature, for instance employment in infrastructure construction. More generally, those who benefited were those who had sufficient assets to take advantage of IFAD's investments. Little evidence was found through the ES that a focus on value chain development had led to any visible benefits through a 'trickle down' effect.

268. Similarly, there is mixed available evidence on sustainability. This was partly because attention to sustainability in project design and implementation only became important in more recent projects. Evaluations suggest that a key factor in ensuring sustainability was political ownership and support, as is typically the case in any intervention. Unfortunately, this support was not available to all projects.

269. A recurrent finding emerging from a significant number of evaluations was that in general, the supervision of projects and the support this brought to implementation significantly improved after IFAD took over direct supervision from UNOPS. Nevertheless, this was not sufficient in over-ambitious projects to ensure sustainability. This was often undermined by the delays and disconnects in implementing key components, for example infrastructure and rural financial services, which undermined the potential sustainability of the more 'aquatic resources centred' components.

270. Difficulties in understanding how projects contributed to empowering women and improving gender relations, because of the limited information available. For example, in the case of the women employed as wage labourers, it would be useful to know how many were able to move on to establishing income generating activities elsewhere rather than the employment being simply a stop gap and perhaps short-lived means of survival. Efforts to develop the capacity of fishmongers in terms of processing techniques, marketing skills or access to financial services, appear to have generated some positive effects for some women, but even in these cases evidence was anecdotal. In general, evidence indicates that project activities tended to reinforce existing gender roles and that little was achieved in transforming gender relations.

271. Attention to natural resources management was variable over time. Earlier projects largely focused on improving production, either catches from capture fisheries or output from aquaculture, with little attention being paid to environmental sustainability aspects. The case of inducing damaging practices in fresh water capture fisheries was apparently only an isolated episode, but is still rather striking. In SIDS however, sustainable aquatic resources management was an element in project design in all projects, with only one exception.

272. Progressive integration of climate change adaptation. As a consequence of rising international awareness on environmental and climate change issues over the last decade or so, IFAD projects paid increasing interest to various issues including sustainable management and monitoring of fisheries based on stock assessments, the implications of climate change for stocks, and the consequences of coastal zone erosion on the livelihoods of the poor. The Synthesis recognizes as positive the improvements in this respect in project design, although too little

evaluative evidence was available on the results and impacts to draw any conclusion.

273. Finally, the Synthesis compared the ratings of the evaluated projects addressing aquatic resources with the overall ARRI ratings for IFAD projects not addressing aquatic resources. For most criteria, the ratings were lower for the aquatic resources relevant projects, with the exception of Gender empowerment. However, given the small sample size of aquatic resources relevant projects, the analysis proved to be statistically significant only for the criterion Food Security and Agricultural Productivity, where aquatic resources relevant projects rated on average 3.77, and other projects rated on average 4. Table 11 below shows these data.

Table 11
Average IOE evaluation ratings of aquatic resources-relevant and other projects evaluated in the period 2009-2017

Criteria	*Aquatic resources-relevant projects*	*Other projects*
Relevance	4.23	4.27
Effectiveness	3.85	3.95
Sustainability	3.65	3.63
Gender	4.2	4.14
Natural resources management	3.73	4
Climate change adaptation	3.58	4
Rural poverty impact	3.94	4.08
Food security and agricultural productivity*	3.77	4

Source: ARRI
* Statistically significant

Key points

- IFAD did not provide the required technical support and visibility to its work on aquatic resources;
- Often work in the aquatic sector was an 'added-on' component to multi-sectoral projects, which frequently led to poor or limited achievements;
- Projects have frequently been based on insufficient understanding of the local context and of the capacities of local institutions;
- The most successful initiatives were implemented within a long-term framework of intervention in the sector, and consisted of a series of related projects;
- The impact on poverty was highly variable and frequently project beneficiaries have not been the poorest of the poor;
- Gender equality, natural resource management and climate change adaptation have become increasingly important elements in project design and implementation.

XI. Three country case studies

274. The ES team found that in Bangladesh, Maldives and Mozambique, IFAD's work on aquatic resources had been particularly visible and important, both in terms of the share of resources allocated to the aquatic resources in the overall portfolio and of the long-term partnership in this sector, developed between IFAD and the countries concerned. In Bangladesh the focus has been on freshwater aquaculture; the Maldives is an example of a SIDS whilst in Mozambique the stress has been on the development of the marine capture fishery.

275. Thus, the ES could develop some narrative of IFAD's work in the aquatic resources sectors in the three countries, which allows more detailed judgements of IFAD's performance to be made. In addition, IFAD's work in these countries significantly mirrored issues identified in most other countries in this domain.

A. Bangladesh

IFAD's activities in the aquatic sector in Bangladesh

276. The Synthesis team identified 14 IFAD-supported projects since the late 1980s which included work in the aquatic sector. Of these, 5 were assessed as high focus and 9 low focus. Together, the 14 projects represented 40 per cent of the total number of projects supported by IFAD in Bangladesh. Almost all IFAD's efforts on aquatic resources in the country focused on freshwater aquaculture either in relatively large water bodies or small, and at times very small, ponds. In addition, only a minimal part of the work addressed marine capture fisheries.

277. Aquaculture has been the sole focus of some project activities, but more often it has been only one of a series of activities within individual projects. This has made it difficult to determine many of the details and impacts of IFAD's aquatic activities.

278. A major strand of IFAD's activities has been concerned with supporting community management of waterbodies. The majority of these were privately owned or leased out by the state to individuals, and they, rather than the actual fishers, controlled the fisheries. Community management involved groups of fishers being formed to lease the waterbodies and manage the fisheries including restocking and maintaining the presence of indigenous species. The OLSFP, approved in 1988, was the first IFAD-supported project to focus on this sector; it was followed by the ADP (1998). Community management of water bodies was also an important element in later projects: the SCBRMP (2001), the PSWRSP (2009) and HILIP (2011).

279. A second strand of activity focused on markets and value chain development. This was apparent in the SCBRMP and the MIDPCR (2005). A little later, value chain development became the lead element in a series of projects: FEDEC (2007); NATP I and II (2007; 2015); and PACEP (2014). In these projects fish was only one of a number of commodities to be included in the value chains. Running alongside efforts to develop the value chains these projects also supported micro-entrepreneurial activities, extension services and the provision of credit.

280. A third strand of activities related to coastal zones and climate change. Only one IFAD-funded project in Bangladesh has been directly concerned with post-disaster rehabilitation, SAPCARH (1991). Here, a key area of work was improving the resilience of coastal communities to handle disasters. The MIDPCR (2005) was also concerned with resilience in the chars of coastal Bangladesh, coupled with a stress on improved communications and thus better marketing facilities for remote villages. More recently CDSP IV (2011) and CCRIP (2013) also worked in the chars. Improving infrastructure and general community development were central elements in these projects. The actual and potential impacts of climate change were motivating forces behind both these projects as they were with CALIP which worked in tandem with HILIP on ways of increasing resilience in the face of more frequent and more intensive floods.

281. In the country, IFAD has worked closely with three organisations. Since around 2000 the Local Government Engineering Department (LGED) has been instrumental in handling the infrastructural aspects of projects, frequently mobilising large numbers of impoverished women as wage labourers. For a similar period, the Palli Karma-Sahayak Foundation (PKSF) has managed aspects of projects concerned with group formation, credit, the establishment of extension services, marketing and value chain development, utilising a large number of NGOs in the process. Finally, WorldFish has been actively involved in some projects, especially the SCBRMP, both in terms of supplying technical inputs but also in monitoring progress and results and by providing technical assistance in the effort to improve the productivity and use of the highly nutritious 'mola' fisheries.

Main Issues

282. Many of the issues common in other countries, also emerged in Bangladesh. Many projects were over-ambitious and elements of projects were often poorly integrated with each other. Assessing the specific significance of interventions in the aquatic sector was also extremely difficult in that the data did not distinguish in any systematic way between various types of fishers (full time; part time; occasional), the role of aquatic products in the overall mix of household activities, nor the role of aquatic products in markets or value chains.

283. Two areas are nevertheless worthy of closer inspection: IFAD's approach to poverty alleviation in Bangladesh, and its interventions in the context of gender and women's empowerment.

Poverty alleviation

284. The key question was how far IFAD's activities in the aquatic sector were effective in reducing poverty. The answer is mixed. One approach was to concentrate on fishers' rights to benefit from the control of water bodies. Certainly, there is evidence that IFAD's support for community management of water bodies was successful and that incomes of poor fishers benefited from these interventions. A study in the SCBRMP project area indicated that incomes of households which were members of Beel user groups had risen by 300 per cent in the ten years after 2004, although not all of this can be attributed to fishing. Similarly, evidence from the OLSFP indicates that members of groups who leased the waterbodies from the government had much higher incomes than those who fished in privately owned areas of water.

285. But there were issues concerning the long-term viability of such organisations. The evaluations mention on several occasions that political backing was essential to maintain the rights of these fisher groups and that in its absence other interested parties were likely to gain access to these fishing grounds. This raises the question of how far IFAD should promote the political competence and legal skills of beneficiary groups. This was an element in the SCBRMP where it is reported that participants had gained confidence and knowledge of the political system, and again in the MIDPCR. However, to ensure the benefits from projects have a long-term future, much greater stress should be placed on increasing the political and legal competencies of beneficiary groups.

286. The approach to poverty in the projects through value chains was rather different. Here, the logic behind the projects was that by developing value chains and assisting small-scale entrepreneurs to establish or extend their businesses, employment will be created for poor people who lacked the resources or skills to become entrepreneurs. The focus was thus on 'progressive borrowers', not the 'hard core poor'. So far, the evidence is at best ambivalent as to how far the 'hard core poor' have benefited. In the case of FEDEC the entrepreneurs who benefited were not active in the most labour-intensive sectors, they failed to create work opportunities and according to the PPE most of the increased labour demand was met by unpaid household labour. Certainly, as the CPE made clear, there were

shortcomings in credit arrangements and capacity building which have limited the effectiveness of interventions in marketing and value chains. But even if these shortcomings had been overcome it is an open question as to whether these interventions would have an impact on the 'hard core poor'.

287. Many, but not all, projects put great stress on rural infrastructure: 56 per cent of the SCBRMP budget, 70 per cent of the MIDPCR budget and 87 per cent of the PSWRSP budget. A large proportion of this was spent on roads and markets, the argument being that this would encourage improvements in marketing and value chain development and thus improve the incomes of producers, including fishers, as well as traders and other intermediary groups. A second argument was that in the process of constructing this infrastructure large numbers of very poor people, especially women, would receive employment as wage labourers.

288. As far as the first argument is concerned, physical infrastructure is clearly a sine qua non for the successful strengthening of market institutions and value chain development. But as the CPE pointed out, there was much less stress on market skills development or support for a regulatory framework for the Micro, Small and Medium Enterprises which could address emerging issues such as occupational standards and the protection of small producers' rights. Whilst poor fishers and others have benefited from non-financial benefits such as ease of working and more salubrious markets, there is no evidence that the prices received for their products have improved as a result of infrastructural improvement.

289. Turning to employment, these projects employed large numbers of very poor people. Although through the creation of 'labour contracting societies' participants gained work experience and there was some skills development, a number of key aspects remained unclear. First, the selection criteria for recruiting labourers. Secondly, it appeared that at least in some cases, they were being employed at rates below the legal minimum. Thirdly, when the infrastructure was completed, mention was made that the groups could find employment in other projects or that they would use their savings to set up in small businesses. But there was no evidence that they did so.

290. In sum, IFAD's activities in the fisheries sector in Bangladesh have only had a marginal impact on the 'hard core poor'. These have benefited directly from employment in infrastructure projects and, to a lesser extent, through jobs created by 'progressive borrowers'. As far as fishers are concerned, those who are members of Beel User Groups have benefited but, according to available evidence, the greatest number of beneficiaries appeared to be the 'progressive borrowers' who have been able to take advantage of the resources supplied by the projects.

<u>Gender equality and women's empowerment</u>

291. Overall, women were included in project design and implementation through two routes: as labourers on infrastructure components, and as members of various forms of project-supported groups. MIDPCR envisaged that all road building labour and 65 per cent of those involved in building markets, would be women. HILIP planned that 'destitute women' would find employment in infrastructural construction whilst PSWRSP planned to give priority to women in the earthworks components of sub projects.

292. Whilst providing much needed employment, the involvement of women in labour contracting societies would, it was argued, provide women with experience of participating in and running group activities. This was in line with a more general approach of involving women in collective activities. The ADP created women's groups to manage ponds and participate in community development and the MIDPCR was involved in a range of group activities for women. Through such activities it was hoped that women would gain experience and skills which would empower them in the wider social, economic and political contexts.

293. How successful these activities were obviously varied. One of the most successful was the SCBRMP which won the first IFAD Gender Award for the Asian Region. In this project groups were successfully formed, and women played an increasing role in village-level organisations. However, fishing was the least successful area for female involvement. The MIDPCR was similarly successful as was the NATP where women were active in 'Common Interest Groups'. CDSP IV has set up a series of female-only groups not only in fish culture but also to manage tube wells, microfinance and law implementation.

294. At the same time, there were problems. In the case of the ADP, attempts to create all-women aquaculture groups ran up against resistance from pond owners who declined to rent the ponds to women. The result appears to have been that women took to smaller-scale fish culture in the ditches associated with their homes. A more conspicuous case involved FEDEC. Here the design envisaged 117,000 microenterprise borrowers of whom the majority would be women. But the PPE concluded that whilst most loans went to women, most of the microenterprises were owned and operated by men who used female family members as a means of gaining access to funds. A slightly different problem was reported from the NATP where women were frequently office holders in the 'common interest groups' but that their status there 'did not appear to pass over into household decision making'.

295. In sum, the Bangladesh experience highlights both the strengths and weaknesses of IFAD's approach to gender in the aquatic sector. Whilst successfully encouraging the formation of women's groups and supporting a degree of empowerment, the lack of nuanced and sophisticated understandings of the local context severely curtailed the impact that these interventions could have had.

B. Maldives

IFAD's activities in the Maldives

296. Since 1982, IFAD has approved US$18.2 million in loans and grants for six programmes in the country. All were assessed as relevant to marine capture fisheries and mariculture, four with a high aquatic focus and two a low focus. All projects concerned marine aquatic resources, with different approaches and entry-points. Four of the six also addressed the agricultural sector. The projects were:

- the Second Fisheries Project (SFP), approved in 1982 and completed in 1989;
- the Atolls Credit and Development Banking Project (ACDBP) approved in 1989 and completed in 1995; this was assessed as 'low focus' on aquatic resources;
- the Southern Atolls Development Project (SADP) approved in 1995 and completed in 2003. SADP was an extension of ACDBP to the Southern atolls and was also assessed as 'low focus';
- the Post-Tsunami Agriculture and Fisheries Rehabilitation Programme (PT-AFReP), approved in 2005 in the wake of the December 2004 Indian Ocean Tsunami and completed in 2014;
- the Fisheries and Agriculture Diversification Programme (FADiP) approved in 2008. It should reach completion in 2018; and
- the Mariculture Enterprise Development Project (MEDeP), approved in 2012. It should reach completion in 2018.

Evolution of the portfolio[61]

297. Available documents suggest that the relevance of the portfolio was high although effectiveness and sustainability varied. Two projects, SFP and MEDeP, focused exclusively on marine fisheries. The first aimed to increase tuna catches and

[61] The Synthesis relied on the PPA and several documents for the PT-AFReP; on President's Reports only for SFP, ACDBP and SADPB; on PR, MTR and Supervision Reports for FADiP; and on PDR, MTR and Supervision Reports for MEDeP.

through this reduce poverty, based on the assumption that if catches increased, then crew members would also benefit because of the national system of sharing catches

298. MEDeP, approved 30 years later, aimed to develop mariculture value-chains by involving poorer and younger people in micro/small level production. This would reduce people's vulnerability and contribute to environmental sustainability, by providing alternatives to the over-exploited and depleted 'reef fisheries' which are used to provide bait for the tuna fisheries. The design addressed production, exploitation, commercialization, environmental sustainability, access to rural credit, and capacity development at all levels, as well as policy development. At mid-term, the institutional and policy support component had achieved the expected results, namely the development of a national mariculture plan, the establishment of a quarantine facility and trained staff. However, the value-chain component was seriously delayed due to the lack of interest by potential investors.

299. ACDBP and SADP addressed the lack of rural financial services and aimed at developing a Mobile Banking mechanism, collecting cash from the outer atolls and providing secure storage facilities. This proved highly relevant decades later when many Maldivians lost their savings along with their houses in the December 2004 tsunami. The projects also facilitated access to rural financial services for micro and small enterprises. It was planned that a range of activities would be supported by these projects including fishing (boats and engines), fish processing, farming, cottage industries, and trading in goods and services. It was also planned that women would benefit through support for small-scale agriculture.

300. The Post-Tsunami Agriculture and Fisheries Rehabilitation Programme (PT-AFReP), was designed in haste to contribute to reconstructing the badly affected infrastructure, assets and agricultural land across the Maldives as a whole. Project design was highly flexible which allowed the MTR to reorient the project, and increase its relevance by focusing on institutional and policy issues which led to some significant results achieved. This took the form of facilitating Maldivian membership of the Indian Ocean Tuna Commission (IOTC), supporting the bid for the Marine Stewardship Council (MSC) certification, helping develop boat building standards, establishing a VMS for the Maldivian fleet and provided overseas training.

301. On a less positive note, support for ice-plants went to large or state-owned plants, rather than to SMEs as originally planned, and there were reports of fewer poor people and women among the beneficiaries than envisaged.

302. The sixth project, FADiP was approved despite its rather poor-quality design. Over time, supervision missions and the MTR agreed with the Government to introduce a number of significant changes, including shifting the planned support to value chain development from large companies to small cooperatives of producers that would be responsible for ensuring quality of produce and marketing and which would develop contractual links with key buyers such as tourist resorts within the country.

303. As of March 2017, 8 years into implementation, the Supervision mission found that progress was being made and that the model of supporting value chain companies and cooperatives (VCC/VCCO) was highly innovative and should become a reference in the country. By then, 6 companies and cooperatives were operational, four in agriculture and two in Maldives fish processing. The main focus of the intervention thus remained on the agricultural components, with support to the fisheries value chain lagging behind. In part this was due to delays in appointing a fisheries post-harvest specialist. The MTR also noted that there had been no export market analysis for fisheries products and maintained that this was increasingly urgent owing to the decrease in tuna stocks.

Main issues

304. Two main issues are apparent in the IFAD experience in the Maldives: the limited analysis and understanding of the local situation especially with regard to poverty issues, and the remarkably little attention which was paid to natural resource management.

Local context and poverty issues

305. Overall, the projects in the Maldives were based on a poor understanding of the local situation, especially the nature of poverty. Projects such as the SFP, FADIP and MEDEP were not based on any detailed analysis of poverty and the general assumption appears to have been that increases in fish production would necessarily benefit the poor. There is no evidence of any market analysis undertaken prior to the establishment of the ACDBP and the SADP, nor was any attempt made to identify and deal with capacity issues. Similarly, PT-AFReP was informed by a very low understanding of the dynamics of Maldivian society despite IFAD's long-term presence in the country. It was only after the MTR that firm action was taken to make project activities relevant to the needs of the Maldives, although even then there was little of a poverty focus. In the case of FADIP, it was only in the later stages of the project that the need to develop a better understanding of poverty and malnutrition issues were essential if the project was to be successful in terms of beneficiaries.

306. Despite the long collaboration between IFAD and the Maldives, the understanding of the local context, including poverty issues, was weak.. Possibly, the scattered nature of the country and difficulties in inter-island travel precluded good preparatory work and simplistic initial assumptions about the nature of the Maldivian economy and society were passed on from one project to another, without proper verification until only recently.

Natural Resources Management

307. The first three projects - SFP, ACDBP and SADPB - referred to the "under-exploitation" of tuna fisheries in Maldivian waters and paid little attention to the sustainability of the fishery. Yet, environmental sustainability was an element in the SFP, which proposed that the planned ice plant would be fed through a rain-collector for harvesting fresh-water supported by a reverse-osmosis plant to desalinize seawater when freshwater was scarce.

308. A decade later, the PT-AFReP approved in 2005 addressed the issue of sustainable stock management in the wider Indian Ocean tuna fisheries, though not as a specific issue in the Maldives. In 2007 IFAD approved FADiP, but its PDR made no reference to potential issues of resource scarcity. Only with the MTR in 2012 did attention to NRM became part of the intervention. This coincided with the design of MEDeP, that referred to a dramatic drop in fish catches and declining tuna fish landings.

309. During the same period, the GEF approved in 2002 a project which was probably the first initiative in the country concerned with marine resources conservation. This stressed the vulnerability of Maldivian ecosystems and marine biodiversity, and the need for strong partnerships across all stakeholders to ensure sustainable NRM.

310. Thus, the level of IFAD's attention to fisheries management and environmental issues evolved rather slowly despite the increasing and widely known concerns about stocks resilience and worsening global environmental conditions, in particular in SIDS.

311. In conclusion, IFAD's performance in the Maldives has been very mixed, with some successes and important innovations, while a recurrent lack of attention to poverty

and environmental issues undermined effectiveness and sustainability of the interventions.

C. Mozambique

IFAD's activities in Mozambique on aquatic resources

312. Since IFAD started operations in Mozambique in 1982, it has supported three loans and three grants addressing aquatic resources, all of them assessed as high focus. Together, the 6 projects represented 29 per cent of the total number of IFAD supported projects in the country.

313. The six projects are:

- the Nampula Artisanal Fisheries Project (NAFP), a loan approved in 1993 and completed in 2001;
- the Sofala Bank Artisanal Fisheries Project (SBAFP), a loan approved in September 2001 and completed in March 2011;
- the Artisanal Fisheries Promotion Project (ProPesca), a loan approved in December 2010 and completed in March 2018;
- the Coastal HIV/AIDS Prevention and Nutrition Improvement Project (CHAPANI), a grant approved in May 2012 and completed in October 2015. Implementation was in localities where ProPesca was also operational.
- the Project for Promotion of Small-scale Aquaculture (PROAQUA), approved in June 2013 as part of a larger EU-grant, and completed in September 2017;
- the Securing Artisanal Fishers' Resource Rights Project (ProDIRPA), a grant approved in December 2013 that should reach completion in June 2018. Its implementation was to be closely coordinated with ProPesca

Evolution of the portfolio and main issues

314. The collaboration in Mozambique between IFAD and the Artisanal Fisheries sector is regarded by both sides as a success story, built upon the trust generated over the years between the relevant stakeholders, the flexibility of the Fund and its long-term commitment to the sector.

315. The string of IFAD's supported projects in the artisanal fisheries sector in Mozambique has been characterised by a cascade of objectives, and related components and activities:

- The overarching goal of poverty reduction by raising the level of incomes, employment and food security of artisanal fishermen and their families in the areas of intervention;
- Adoption and diffusion of effective and more environmentally friendly fishing techniques, as well as of better post-harvest and processing methods, through capacity development, inputs and equipment supply;
- Improved fish marketing opportunities through roads and markets construction or rehabilitation;
- Improved access to rural financial services appropriate to the needs of fishers, fish-mongers and fish traders, enabling investments for better inputs and equipment;
- Improved technical assistance services through institutional development and integration of lessons learned.

316. Additional components and activities that directly or indirectly contributed to the objectives included: social infrastructures development through SBAFP; awareness raising and education on HIV/AIDS and nutrition through CHAPANI; fish stock assessments through ProPesca; community-based management of fisheries resources through SBAFP and PRODIRPA; the introduction of a value chain approach through ProPesca.

317. Work in aquaculture was also ambitious, but by the time of this Synthesis, only the PROAQUA grant had been completed, and a new initiative was being designed. This project aimed at promoting small-scale tilapia farming in inland districts of the Manica and Sofala provinces with a food and nutrition security goal. Evaluative evidence available one year before completion found that micro-aquaculture ponds were popular, albeit expensive, in the districts where they were being proposed. However, the project risked being a missed opportunity as a learning experience for future investments in the small-scale aquaculture sector to build on.

318. In the marine capture fisheries sector, evidence available shows that interventions were all highly relevant. The progressive geographical expansion, from two districts initially with NAFP, to a contained fisheries area with SBAFP, to covering the entire coastal line with ProPesca, was a sensible approach that allowed building on previous experience, and also from projects implemented earlier by other development partners.

319. Information on NAFP's results was positive and sufficiently encouraging to lead to the design and approval of SBAFP. This was largely based on a "community-managed development" model. Thus, in addition to work on more sustainable fisheries practices, SBAFP dedicated significant resources to build and establish social infrastructures demanded by communities and badly required after decades of civil war. Through these, the project improved community and individuals' access to social infrastructures such as water points, health centres and schools. SBAFP was a milestone with regards to social capital and empowerment, actively engaging the artisanal fishery communities in local development processes and empowering them with the local governments, although five years after completion participation in associations was low. An impact evaluation showed that the project had a positive impact on household incomes and assets of beneficiaries, a larger proportion of whom were living above the poverty line, had higher monthly incomes and higher assets ownership than the comparison group.

320. ProPesca was designed to be implemented along the entire coastline where nine Growth Poles were established. In addition to the geographic expansion, the project was highly ambitious, with a significant shift in focus towards a value chain approach based on individual entrepreneurship and "business development services" and a commitment to fisheries co-management. The 2017 CSPE had argued that ProPesca had missed an opportunity to empower local fisheries management committees and make them active players in trading and marketing, which would have contributed to generate more revenues locally.

321. In addition, the ProPesca Project Management Unit was only partly in control of the rural financial services pillar of the value chain approach, which was to be operated by another project, and of the institutional mobilization effort required for the co-management component, which was managed by PRODIRPA, designed as a separate albeit closely associated project. Different factors affected the progress of both the Rural Financial Service project and PRODIRPA, and led to delays in ProPesca progressing towards major results.

322. Overall, a major positive result of IFAD's interventions was the development of a solid institutional capacity within MIMAIP and its subordinate institutions with regards to artisanal fisheries management. Government staff were trained over time in a wide variety of topics related to artisanal fisheries management, technologies, post-harvest, marketing and processing, and gender mainstreaming. Institution-building support was also provided to establish the decentralized network of the national institute for artisan fisheries development, though additional Government's efforts were necessary to recruit staff who would ensure a better technical assistance to small-scale fisheries along the coast.

323. Related to this was the impressive process of institutional change and policy reform in the small-scale fisheries sector triggered by SBAFP. This led to the adoption of

PESPA 2006-2016, to the establishment of a fishing exclusion zone protecting the interests of artisanal fishers through the formulation and adoption of sectoral policies and management measures, and to the diversification of fishing practices and technologies that resulted in a slightly higher fish production for the beneficiary group.

324. Significant efforts were also made over time in terms of capacity development for both men and women engaged in fishing and gear preparation and in post-capture handling and conservation. Results of this were reported through anecdotal evidence on the improved quality of landed fish thanks to the long-term work done by the projects that resulted in increased and more systematic use of ice on board. Training also included exchange visits in the country and outside, as well as bringing, for example, master carpenters from outside the country to demonstrate how to build more resistant boats.

325. With regards to impacts on catches, the 2014 fish landing data showed an increase of 24 per cent over 2012 landings in marine finfish captures, and the country's annual production of fishery products in 2015 was 289,000 tonnes, of which 90 per cent came from small-scale fisheries. Although the causal link, or attribution, between the IFAD-supported projects and the recorded increase has not been established, it is reasonable to argue that the impact on productivity may have been generated by SBAFP/PPBAS, ProPesca and PROAQUA.

326. The Mozambique case shows that a key factor for success was undoubtedly the long-term commitment of IFAD to the fisheries sector, that contributed to prevent the dispersion of experiences and competences acquired over time and enabled their consolidation in new successive projects. This is an important lesson to be learnt when an organization like IFAD decides to engage in a sector when limited capacity exists in a country.

327. In addition, although evidence from other projects in Mozambique and elsewhere typically shows that over-complex projects run high risks of failure, the ProPesca case suggests that even well-managed and focused projects may achieve less than expected results, because 'ancillary' or partner projects fail for reasons beyond their control.

Key points

The three case studies indicate:

- the importance of long term involvement in the aquatic sectors in any given country, for achieving sustainable results;
- the importance of contextual knowledge in ensuring project success, and
- the need for the careful integration and articulation of project elements to ensure that benefits are realised.
- Value-chain development interventions in fisheries and aquaculture run the risk of mostly benefitting those who already have assets and capacities, as the access threshold is beyond the reach of the poorer and more vulnerable groups; significant attention during implementation would be required to ensure more equitable results.

XII. Conclusions, lessons learnt and recommendations

A. Conclusions

328. During the inception phase, the Synthesis could not identify a unifying Theory of Change that underpinned IFAD's work in aquatic resources. It thus developed a working assumption against which to assess IFAD's performance when addressing aquatic resources, as follows: "By supporting the sustainable use and management of aquatic resources and scaling up its experiences to the policy level, IFAD has contributed to reducing poverty and strengthening Food and Nutrition Security; through: improving the livelihoods of the rural poor; introducing sustainable natural resources management and adaptation practices to climate change; promoting socially equitable access to, and distribution of, benefits achieved".

329. The general conclusion of the Synthesis is that IFAD's performance has been highly variable over time and across countries and sub-sectors. Overall, IFAD has devoted insufficient attention to the aquatic sector, in particular in terms of expertise dedicated to project design and supervision, with the result that the potential of this sector to contribute to food and nutritional security and to poverty alleviation amongst the rural poor has not been realised.

330. At the corporate level, there has been a relatively muted approach to aquatic resources, both amongst successive Strategic Frameworks and other corporate strategies. In general, aquatic resources have been subsumed under agriculture, with the result that the sectoral specificities have been ignored. Although COSOPs included the aquatic sectors within the scope of their programmes, and many projects were approved including activities in the aquatic sectors, in practice in project design and implementation there has been a tendency for aquatic elements to be treated as marginal. There was insufficient technical expertise, and the relevant components were either unsuccessful or even dropped. The result of this approach has been that with few exceptions, IFAD has infrequently been a repeat partner of Governments in these areas of work. At the same time, more recent projects were found to be better designed, based on more comprehensive understanding of the issues at stakes while focused on the aquatic resources context.

331. The lack of recognition of the specificities of the aquatic sector was also mirrored in the exclusive reliance, until recently, on external consultants rather than on an in-house expertise that could develop a corporate vision and strategy. The recruitment of a full-time IFAD aquaculture and fisheries expert in early 2015 represents a significant improvement and increases the credibility of the Fund's commitment to this area of work, by bringing consistency and focus to the potential of a stream of work which has as yet not been realised. In-house expertise also increases the capacity of the Fund to collaborate effectively and enter partnerships with organizations that have greater technical resources in this domain. This is a significant step forward, that may pave the way to increasing the opportunities for IFAD to engage with Member States in these domains and develop appropriate responses to their demands.

332. The limited evaluative evidence available for each sub-sector did not allow a robust comparison of performance across these, or a comparison with IFAD's performance in other, non-aquatic, sectors. In general, projects addressing marine capture fisheries appeared slightly more effective than in other sub-sectors and in a few countries, IFAD developed long-term successful partnerships with the respective governments in this domain. However, so far IFAD has not engaged sufficiently in identifying alternative livelihoods for fisheries-dependent communities, that would allow decreasing anthropic pressure on fisheries resources and enhance the resilience of poor households. Also, IFAD's experience with post-disaster rehabilitation, as was the case with the 2014 Indian Ocean Tsunami, did not prove to be effective.

333. Despite these systemic issues, there have been some notable successes in IFAD's impact on poverty and livelihoods when addressing aquatic issues. These have occurred when IFAD has committed itself to long term engagement in fisheries and aquaculture and has supported innovations, policy dialogue and institutional development in addition to direct work at the community level. But most projects would have been more effective if they had been more clearly focused and less complicated, if the capacity of local organisations had been better understood and, above all, if project design had been more fully informed by broader analyses of the local context and more accurate analyses of their likely impacts.

334. Available evidence indicates that the poorest households have frequently not been the primary beneficiaries, and that IFAD interventions have frequently tended to favour those whose pre-existing resource-base allows them to take advantage of IFAD's investments. Evidence from IFAD's projects suggests that there is no guarantee that 'trickle-down mechanisms' from value chain development approaches will necessarily benefit the poor,[62] unless they are couched in explicit and careful frameworks that include measures for reaching out to the poorer sections of the population, and long-term support from donors and other partners[63] is ensured. Also, more attention should be given to emerging issues such as safety at sea and the 'Decent Work' agenda which have direct relevance for the livelihoods of all poor people.

335. Most projects incorporated gender equality and women's empowerment, and over time approaches have become increasingly sophisticated. Whilst in some cases this has led to a degree of female empowerment and transformation of gender roles and relationships, interventions have often reinforced pre-existing gender stereotypes and divisions of labour. Women play a central role in fish handling, processing and marketing, and are frequently prominent as the financial managers of small-scale aquatic ventures. However gender equality has not been a central focus of IFAD's interventions This is all the more significant given the increasing emphasis on value chains in IFAD-funded projects, where lack of attention to women's role in fish trading and processing at the artisanal level could weaken their traditional control on the post-harvest steps of the value chains and militate against the ultimate corporate objectives of gender equality and poverty reduction.[64]

336. Natural resource management has grown in importance during the period under review. Increasing attention has been paid to the sustainable management of fishery resources including aquaculture and problems and issues arising from global climate change especially in coastal areas. However, the evidence so far suggests that frequently, insufficient attention has been given to sustainable management of aquatic resources, nor to the challenges that people whose livelihoods depend on aquatic resources will increasingly face because of climate changes.

337. Finally, IFAD current Strategic Framework 2016-2025 and its commitment to the implementation of Agenda 2030 entail that specific attention should be paid to aquatic resources. . IFAD associates with and sees its contribution as going to: SDG1-No Poverty; SDG2-Zero Hunger; SDG5-Gender Equality, SGD8-Decent Work and Economic Growth; SDG10-Reduced Inequalities; SDG13-Climate Action; SDG15-Life on land. All of these are relevant to aquatic resources and for the poor

[62] See Edo Andriesse, Primary sector value chains, poverty reduction and rural development challenges in the Philippines'. Geographical Review 2017: 1-22.
[63] See Horton, D., J. Donovan, A. Devaux, and M. Torero. 2016. 'Innovation for Inclusive- Value Chain Development: Highlights'. In, Innovation for Inclusive Value-Chain Development. Successes and Challenges, eds. A. Devaux, M. Torero, J. Donovan, and D. Horton. Washington D.C.: IFPRI.
[64] See N Weeratunge, K A Snyder and Choo Poh Sze 2010. 'Gleaner, fisher, trader, processor: understanding gendered employment in fisheries and aquaculture'. Fish and Fisheries 11: 405-420.

whose livelihoods depend on aquatic resources, including SDG15 with respect to freshwater aquaculture and the effects of the use of land-based resources on aquatic resources. Also, SDG 12-Sustainable Consumption and Production and SDG14-Sustainably use of the Oceans, are directly relevant to IFAD's activities, for example the Fund's interventions that aim at better regulation and management of fisheries and at identifying alternative livelihoods opportunities to capture fisheries. Thus, it would appear important for the Fund to maintain its attention to these sectors as part of its overall international role to contribute to the implementation of Agenda 2030.

B. Lessons learnt

338. A number of lessons have emerged through the Synthesis that may be applicable to the future work of the Fund in the aquatic sector. The most important were the following.

339. Technical expertise is necessary. The most important lesson to be learnt from IFAD's experience in the aquatic sector is the need for technical expertise. At design and quality assurance stage, many projects lacked sufficient technical expertise. This frequently continued during implementation, with limited priority given to the need for technical knowledge during supervision.

340. Work in aquatic resources should not be one of many components. Adding aquatic-resources components to multi-sectoral projects did not prove to be effective nor efficient, because insufficient attention has been paid to the specificities of aquatic resources issues, in technical and social terms at least, that need to be addressed differently from land-resources based projects.

341. Norms and policies are important for aquatic resources management. Several evaluations and projects clearly showed that attention should be paid to normative and legislative frameworks. Long term sustainability depends on a clear and enforceable legal framework which defines and protects the rights and obligations of all relevant parties.

342. Long-term commitment is necessary. IFAD's efforts in addressing aquatic resources has been most successful when the organization committed to a long-term horizon of support to the sector. This allowed time to develop knowledge and understanding of the specific context, gaining trust and respect and steering interventions accordingly.

343. Contextual analysis must be adequate. Partly linked to the long-term commitment, design and implementation of successful interventions depend on a good understanding of the social, economic and cultural contexts in which they are sited and the capacity of local organisations and institutions. This is particularly important when proposing aquatic resources-based value-chain development, where the good understanding of up-stream and down-stream environments and links is crucial to the proper design of an intervention. At present there are indications that such knowledge is frequently lacking with a resulting failure to achieve the full potential of IFAD's involvement.

344. Monitoring must be effective. Successful management depends on the availability of timely and accurate data. In many projects examined in this evaluation monitoring was extremely poor and ineffective, which added to the invisibility of the aquatic sector components and to the lack of data on participants into projects' aquatic resources relevant components. The result was that neither project management nor IFAD had a clear idea of the results of projects on communities or households whose livelihoods depended on aquatic resources.

345. Information should be shared. Effective project design and implementation depends on utilising the lessons learnt by other agencies as well as IFAD's own experience to ensure that best practice is as widely disseminated as possible. A

good example of this is that the experience gained in IFAD-supported work in aquaculture in Bangladesh is being used to inform interventions elsewhere. The anecdotal evidence available also suggests that if dissemination of good practices and lessons learned is necessary and useful, these have to be well adequately adjusted to the new contexts.

C. Recommendations

346. The ES team, based on the analysis and evidence discussed in this report, developed one overarching recommendation and three complementary recommendations in support of the first.

347. Recommendation 1. IFAD, following the demands of its Member States, should maintain a sustained engagement in aquatic resources-relevant interventions to benefit both producers and consumers of aquatic products because of the importance of these resources to the livelihoods of large numbers of IFAD's primary target population. This engagement however requires a significant improvement in the quality of projects designed in these sectors, and in the technical support provided during implementation to project implementation teams.

348. Recommendation 2: IFAD should develop more partnerships with those organisations that have specific technical expertise in the aquatic resources sector, to ensure that their technical knowledge can be efficiently harnessed to improve the quality of IFAD's portfolio in terms of design, implementation and supervision of its aquatic-resources relevant projects. Resources from IFAD's grants portfolio could be usefully employed to this effect.

349. Recommendation 3: IFAD should preferably address aquatic resources management through projects mostly or fully focused on the aquatic sector/sub-sectors. This will enable tackling in an appropriate manner and with the required specialized knowledge and expertise, all the complexities and trade-offs attached to livelihoods that depend on aquatic resources, ranging from poverty reduction to sustainable management of the resources, access to markets and value-chain development.

350. Recommendation 4: IFAD's interventions on aquatic resources should better address and integrate various social development issues, including gender equality, inclusion of youth, decent work aspects, rights and obligations of beneficiaries and other stakeholders defined in legal terms, all to ensure long term sustainability both of incomes and resources.

351. Recommendation 5: IFAD's interventions on aquatic resources should more consistently address and integrate the environmental sustainability of the resource-base and the need to enhance resilience to climate change of those among its target population whose livelihoods depend on aquatic resources. In this respect, the recent and on-going initiatives that introduced alternative livelihoods for fishing communities should be a source of lessons learned for the entire Fund.

United Nations list of UN Members Small Island Developing States

Region	Countries
Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS)	Cabo Verde
	Comoros
	Guinea-Bissau
	Maldives
	Mauritius
	Sao Tomé and Principe
	Seychelles
	Singapore
Caribbean	Antigua and Barbuda
	Bahamas
	Barbados
	Belize
	Cuba
	Dominica
	Dominican Republic
	Grenada
	Guyana
	Haiti
	Jamaica
	Saint Kitts and Nevis
	Saint Lucia
	Saint Vincent and the Grenadines
	Suriname
	Trinidad and Tobago
Pacific	Fiji
	Kiribati
	Marshall Islands
	Micronesia (Federated States of)
	Nauru
	Palau
	Papua New Guinea
	Samoa
	Solomon Islands
	Timor-Leste
	Tonga
	Tuvalu
	Vanuatu

IOE evaluations relevant to SSF, SSA and CZR

Evaluation type	*Report year*	*Country*	*Project/evaluation title*
CSPE	2018	Angola	Country Programme Evaluation Republic of Angola (included assessment of AFAP)
PCRV	2015	Bangladesh	The Market Infrastructure Development Project in Charland Regions (MIDPCR)
PCRV	2016	Bangladesh	Sunamganj Community Based Resource Management Project (SCBRMP)
PPE	2016	Bangladesh	Finance for Enterprise Development and Employment Creation Project (FEDEC)
PCRV	2016	Bangladesh	National Agricultural Technology Project (NATP)
CPE	2016	Bangladesh	Country Programme Evaluation People's Republic of Bangladesh (included assessments of CDSP; CCRIP; HILIP; PSWRSP)
PCRV	2012	Benin	Support Programme to the Participatory Development of Artisanal Fisheries (PADPPA)
PCRV	2015	Bosnia & Herzegovina	Rural Enterprise Enhancement Project (REEP)
PPA	2013	Cambodia	Rural Poverty Reduction Project in Prey Veng and Svay Rieng (RPRP)
PCRV	2015	Cape Verde	Rural Poverty Alleviation Programme (PLPR)
PPE	2006	China	Southwest Anhui Integrated Agricultural Development Project (SAIADP)
CPE	2014	China	Country Programme Evaluation People's Republic of China (included assessments of SAIADP, DAPRP, SSADeP)
PCRV	2016	Comoros	National Programme for Sustainable Human Development (PNDHD)
PCRV	2013	Congo, Republic of	Projet de Développement Rural dans les Départements des Plateaux, de la Cuvette et de la Cuvette Ouest (PRODER I)
PCRV	2016	Congo, Republic of	Rural Development Project in the Niari, Bouenza and Lékoumou Departments (PRODER 2)
PCRV	2016	Democratic Republic of Congo (DRC)	Programme de relance agricole dans la province de l'Equateur (PRAPE)
PPE	2016	Democratic Republic of Congo (DRC)	Programme de réhabilitation de l'agriculture dans le district de la Tshopo Province orientale (PRAPO)
CSPE	2017	Democratic Republic of Congo (DRC)	Évaluation de la stratégie et du programme de pays République démocratique du Congo (included assessments of PRAPO, PRAPE, PIRAM)
PPE	2016	Djibouti	Projet de développement du microfinancement et de la microentreprise (PDMM)
PCRV	2011	Grenada	Grenada Rural Enterprise Project (GREP)
PCRV	2014	Guinea-Bissau	Rural Rehabilitation and Community Development Project (RRCDP)
CPE	2010	India	Country Programme Evaluation Republic of India (included assessment of PTSLP)
CPE	2016	India	Country Programme Evaluation Republic of India (included assessment of PTSLP)

Evaluation type	*Report year*	*Country*	*Project/evaluation title*
CPE	2014	Indonesia	Country Programme Evaluation Republic of Indonesia (included assessment of CCDP)
PPE	2011	Laos	Oudomxai Community Initiatives Support Project (OCISP)
PPA	2015	Laos	Rural Livelihoods Improvement Programme in Attapeu and Sayabouri (RLIP)
CPE	2013	Madagascar	Évaluation du programme de pays République de Madagascar
PPE	2017	Maldives	Post-Tsunami Agriculture and Fisheries Rehabilitation Programme (PT-AFReP)
PPA	2014	Mauritius	Rural Diversification Programme (RDP)
PCRV	2016	Mauritius	Marine and Agricultural Resources Support Programme (MARS)
Interim evaluation	2000	Mozambique	Nampula Artisanal Fisheries Project
CPE	2010	Mozambique	Country Programme Evaluation Republic of Mozambique (included assessment of NAFP and SBAFP)
Impact evaluation	2016	Mozambique	Sofala Bank Artisanal Fisheries Project (PPABS)
CSPE	2017	Mozambique	Country Strategy and Programme Evaluation Republic of Mozambique (included assessments of SBAFP, ProPesca; PROAQUA, Prodirpa) 2017
CSPE	2017	Nicaragua	Evaluación de la Estrategia y el Programa en el País República de Nicaragua (included assessment of NICARIBE)
CPE	2016	Nigeria	Country Programma Evaluation Federal Republic of Nigeria (included assessments of CBNRMP, CBARDP)
Interim Evaluation	2009	Philippines	Western Mindanao Community Initiatives Project (WMCIP)
PPA	2012	Philippines	Northern Mindanao Community Initiatives and Resource Management Project (NMCIRMP)
CSPE	2017	Philippines	Country Strategy and Programme Evaluation Republic of the Philippines (included assessment of FishCORAL)
PCRV	2016	Sao Tome & Principe	Participatory Smallholder Agriculture and Artisanal Fisheries Development, PAPAFPA
PCRV	2013	Sri Lanka	Post-Tsunami Livelihoods Support and Partnership Programme (PT-LiSPP)
PPE	2017	Sri Lanka	Post -Tsunami Coastal Rehabilitation and Resource Management Programme (PT-CRReMP)
CPE	2015	Tanzania	Country Programme Evaluation United Republic of Tanzania (included assessment of SSP)
PCRV	2011	Vietnam	Ha Tinh Rural Development Project (HTRDP)
CPE	2012	Vietnam	Country Programme Evaluation Socialist Republic of Vietnam (included assessments of ARCDP, RIDP)
PCRV	2014	Vietnam	Decentralized Programme for Rural Poverty Reduction in Ha Giang and Quang Binh Provinces (DPRPR)
CPE	2012	Yemen	Country Programme Evaluation Republic of Yemen (included assessments of AMRDP, FIP, SGRDP)
PCRV	2014	Yemen	Al-Mahara Rural Development Project (AMRDP)

IFAD-supported projects related to SSF, SSA and CZR, including in SIDS

	1979	1981	1982	1983	1984	1986	1987	1988	1989	Total
Marine fisheries evaluated										
Marine fisheries not evaluated								Nigeria, Artisanal Fisheries Development Project (AFDP)	Tanzania, Smallholder Support Project in Zanzibar (SSP); Yemen, Agricultural Credit Project (ACP)	3
Freshwater fisheries evaluated										
Freshwater fisheries not evaluated				Congo, La Cuvette Artisanal Fisheries Project						1
Aquaculture evaluated										
Aquaculture not evaluated	Laos, Casier-Sud Pioneer Agricultural Project					China, Guangdong Integrated Freshwater Fish Farming Project; Nepal, Aquaculture Development Project (ADP)		Bangladesh, Oxbow Lakes Small-Scale Fishermen Project (OLSFP)		4
CZR evaluated										
CZR not evaluated										
SIDS evaluated										
SIDS not evaluated		Grenada, Artisanal Fisheries Development Project	Maldives, Second Fisheries Project; Papua New Guinea, Artisanal Fisheries Project		Sao Tomé and Principe, Artisanal Fisheries Project		Cape Verde, Projet de développement de la pêche artisanale		Maldives, Atolls Credit and Development Banking Project	6
Total	1	1	2	1	1	2	1	2	3	14

	1990	1991	19Laos OCISP	19Laos RLIP	1995	1996	1997	1998	1999	Total
Marine fisheries evaluated				Mozambique, Nampula Artisanal Fisheries Project			Angola, Northern Fishing Communities Development Programme (PESNORTE);	Philippines, Western Mindanao Community Initiatives Project (WMCIP)	Yemen, Al-Mahara Rural Development Project (AMRDP)	4
Marine fisheries not evaluated	Algeria, Artisanal Fisheries Pilot Development Project (AFDP); Yemen, Fourth Fisheries Development Project (FFDP)		Mauritania, Banc d'Arguin Protected Area Management Project				Yemen, Southern Governorates Rural Development Project (SGRDP)			4
Freshwater fisheries evaluated										
Freshwater fisheries not evaluated										
Aquaculture evaluated					Bangladesh, Small-scale Water Resources Development Sector Project (SSWRDP)	Vietnam, Agricultural Resources Conservation and Development Project in Quang Binh Province (ARCDP)	China, Southwest Anhui Integrated Agricultural Development Project (SAIADP)		Vietnam, Ha Tinh Rural Development Project (HTRDP), India, Jharkhand Chattisgarh Tribal Development Project	5
Aquaculture not evaluated								Bangladesh, Aquaculture Development Project (ADP)		1
CZR evaluated										
CZR not evaluated		Bangladesh, Special Assistance								1

	1990	1991	19Laos OCISP	19Laos RLIP	1995	1996	1997	1998	1999	Total
		Project for Cyclone Affected Rural Households (SAPCARH)								
SIDS evaluated									Cape Verde, Rural Poverty Alleviation Programme (PLPR); Mauritius, Rural Diversification Programme (RDP)	2
SIDS not evaluated	Sao Tomé and Principe, Second Artisanal Fisheries Development Project				Maldives, Southern Atolls Development Project (SADP)					2
Total	3	1	1	1	2	1	3	2	5	19

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
Marine fisheries evaluated	Mozambique, Sofala Bank Artisanal Fisheries Project (PPABS); Philippines, Northern Mindanao Community Initiatives and Resource Management Project (NMCIRMP)	Djibouti, Projet de développement du microfinancement et de la microentreprise (PDMM)								3
Marine fisheries not evaluated										
Freshwater fisheries evaluated	Benin, Support Programme to the Participatory Development of Artisanal Fisheries (PADPPA)			Congo, Projet de Développement Rural dans les Départements des Plateaux, de la Cuvette et de la Cuvette Ouest (PRODER I) ; DRC, Programme de relance agricole dans la province de l'Equateur (PRAPE)	DRC, Programme de réhabilitation de l'agriculture dans le district de la Tshopo Province orientale (PRAPO)					4
Freshwater fisheries not evaluated					Benin, Rural Development Support Programme (RDSP)					1
Aquaculture evaluated	Bangladesh, Sunamganj Community	Laos, Oudomxai Community Initiatives Support	Cambodia, Rural Poverty	Vietnam, Decentralized Programme for	Laos, Rural Livelihoods Improvement	Bonia&Herzegovina, Rural Enterprise Enhancement	Bangladesh, Finance for Enterprise	DRC, Integrated Agricultural Rehabilitation	Bangladesh, Participatory Small-scale	14

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
	Based Resource Management Project (SCBRMP) Nigeria, Community-based Agricultural and Rural Development Programme (CBARDP); Vietnam, Rural Income Diversification Project in Tuyen Quang Province (RIDP)	Project (OCISP)	Reduction Project in Prey Veng and Svay Rieng (RPRP)	Rural Poverty Reduction in Ha Giang and Quang Binh Provinces (DPRPR)	Programme in Attapeu and Sayabouri (RLIP)	Project (REEP) Congo, Rural Development Project in the Niari, Bouenza and Lékoumou Departments (PRODER 2)	Development and Employment Creation Project (FEDEC); National Agricultural Technology Project (NATP)	Programme in Maniema Province (IARPMP)	Water Resources Sector Project (PSWRSP); China, Dabieshan Area Poverty Reduction Programme (DAPRP)	
Aquaculture not evaluated										
CZR evaluated		Nigeria, Community-based Natural Resource Management Programme-Niger Delta (CBNRRMP)			Bangladesh, The Market Infrastructure Development Project in Charland Regions (MIDPCR); India, Post-Tsunami Sustainable Livelihoods Programme for the Coastal Communities of Tamil Nadu (PTSLP); Sri Lanka, Post-Tsunami Livelihoods Support and Partnership Programme (PT-LiSPP) and Post					5

	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
					Tsunami Coastal Rehabilitation and Resource Management Programme (PT-CRReMP)					
CZR not evaluated										
SIDS evaluated	Grenada Rural Enterprise Project (GREP); Sao Tomé and Principe, Participatory Smallholder Agriculture and Artisanal Fisheries Development, PAPAFPA				Maldives, Post-Tsunami Agriculture and Fisheries Rehabilitation Programme (PT-AFReP);		Comoros, National Programme for Sustainable Human Development (PNDHD) Guinea Bissau, Rural Rehabilitation and Community Development Project (RRCDP)	Mauritius, Marine and Agricultural Resources Support Programme (MARS)		6
SIDS not evaluated								Maldives, Fisheries and Agriculture Diversification Programme (FADiP)		1
Total	8	3	1	3	8	2	4	3	2	34

	2010	2011	2012	2013	2014	2015	2016	2017	Total
Marine fisheries evaluated	Mozambique, Artisanal Fisheries Promotion Project (ProPesca); Yemen, Fisheries Investment Programme (FIP)		Mozambique, Coastal HIV/AIDS Prevention and Nutrition Improvement Project (CHAPANI)	Mozambique, Strengthening Artisanal Fishers' Resource Rights Project (Projeto de Direitos aos Recursos dos Pescadores Artesanais (PRODIRPA)					4
Marine fisheries not evaluated	Eritrea, Fisheries Development Project (FDP)	Pakistan, Gwadar-Lasbela Livelihoods Support Project (LSP)					Eritrea, Fisheries Resources Management Programme (FReMP)		3
Freshwater fisheries evaluated						Angola, Artisanal Fisheries and Aquaculture Project (AFAP)			1
Freshwater fisheries not evaluated			Congo, Agricultural Value Chains Development Programme (PADEF)				Congo, Projet de développement de la pêche et de l'aquaculture continentales (PD-PAC)		2
Aquaculture evaluated		Bangladesh, Haor Infrastructure and Livelihood Improvement Project (HiLIP)	Cambodia, Project for Agricultural Development and Economic Empowerment (PADEE)	China, Shiyan Smallholder Agribusiness Development Project (SSADeP); Mozambique, Project for Promotion of Small-scale Aquaculture (PROAQUA)					4
Aquaculture not evaluated			Venezuela, Integrated and Sustainable Development Project for the Arid Zones in the		Bangladesh, Promoting Agricultural Commercializatio	Bangladesh, National Agricultural Technology		Kenya, Aquaculture business developmen	4

	2010	2011	2012	2013	2014	2015	2016	2017	Total
			States of Nueva Esparta and Sucre (PROSANESU)		n and Enterprises Project (PACEP)	Program - Phase II project		t project (ABDP)	
CZR evaluated	Bangladesh, Char Development and Settlement Project IV (CDSP); Nicaragua, Agricultural, Fishery and Forestry Productive Systems Development Programme in RAAN and RAAS Indigenous Territories (NICARIBE)			Bangladesh, Coastal Climate Resilient Infrastructure Project (CCRIP) Indonesia, Coastal Climate Resilient Infrastructure Project (CCRIP)		Philippines, Fisheries, Coastal Resources and Livelihood Project (Fish-CORAL)			5
CZR not evaluated				Djibouti, Programme to reduce vulnerability in coastal fishing areas (PRAREV); Vietnam, Project for Adaptation to Climate Change in the Mekong Delta in Ben Tre and Tra Vinh Provinces (AMD)		Benin, The Market Gardening Development Support Project (MGDSP);			3
SIDS evaluated									
SIDS not evaluated	Grenada, Market Access and Rural Enterprise Development Programme (MAREDP)		Cape Verde, Rural Socio-economic Opportunities Programme (POSER); Maldives, Mariculture Enterprise Development Project (MEDeP)	Seychelles, Competitive Local Innovations for Small-Scale Agriculture Project (CLISSA)		Guinea Bissau, Economic Development Project for the Southern Regions (PADES)			5
Total	6	2	6	8	1	6	1	1	31

Self-standing grants

Grant type	Division	Board approval date	Project Start	Project Completion	Country	Project title	Budget (total US$)	Type of recipient organization	Executing agency
Small	APR	2004			Pakistan	Pilot Testing of a Public/Private Partnership to Develop Capacity for Small-Scale Agribusiness and Processing Enterprises (Pakistan)	200.000	Non-Governmental Organisations	Leadership for Environment and Development
Small	PTA	2006			Global	Building the Foundation for Pro-Poor Ecosystem Service Markets to Achieve Impacts to Scale in Africa	150.000	Non-Governmental Organisations	Forest Trends Association
Small	CONV BU	2006			Global	Nyéléni 2007 – World Forum on Food Sovereignty (WFFS)	150.000	Farmer/producer organisation	Coordination Nationale des Organisations Paysannes du Mali
Small		2007		SIDS	Pacific Islands	Establishment of a Centre of Excellence for Atoll Agricultural Research and Development in the Pacific	0,2	Regional Organisation	Secretariat of the Pacific Community
Small		2008			Global	Strengthening Fisher Folk Organizations' Capacities as Advocates for Small-scale Fishers and Fish Farmers	50.000	Farmer/producer organisation	World Forum of Fisher Peoples
Small	CONV BU	2008			Global	Civil Society Forum to FAO High-Level Conference on World Food Security and the Challenges of Climate Change and Bio-Energy	200.000	Non-Governmental Organisations	Centro Internazionale Crocevia
Small	PTA	2009		2013	Global	Ex ante Impact Assessment of Returns on Investments in the Fisheries and Aquaculture Sector in Developing Countries	200.000	CGIAR	WorldFish Centre
Small	APR	2010			Bangladesh	Linking Fisheries and Nutrition: Promoting Innovative Fish Production Technologies in Ponds and Wetlands with Nutrient-Rich Small Fish Species in Bangladesh	499.912	CGIAR	WorldFish Centre

Small	APR	2012			Pacific Islands	Development and Pilot Implementation of Integrated Pacific Island Organic/Ethical Trade initiatives	500.000	Regional Organisation	Secretariat of the Pacific Community
Large	APR	2015	2016	2020	Pacific Islands	Leveraging the Development of Local Food Crops and Fisheries Value Chains for Improved Nutrition and Sustainable Food Systems in the Pacific Islands	4.000.000	CGIAR	Technical Center for Agricultural and Rural Cooperation (CTA)
Large		2015		3 years	Cambodia, Zambia, Indonesia, Thailand, Bangladesh	Managing Aquatic Agricultural Systems to Improve Nutrition and Livelihoods in Selected Asian and African Countries: Scaling Learning from IFAD-Worldfish Collaboration in Bangladesh under the Programme Putting Research into Use for Nutrition, Sustainable Agriculture and Resilience (PRUNSAR)	3.000.000	CGIAR	WorldFish Centre
Large	WCA	2015	NA	3 years	Cameroon	Aquaculture Entrepreneurship Development Support Project (PPAE)	3.325.000	Government	MINEPIA, Aquaculture Division
Large	PMD	2015	NA	NA	Global	Improving the technological foundations for sustainable aquaculture	2.000.000	CGIAR	WorldFish Centre
Small	PTA	2015	2015	2017	Global	Direct Support to Farmers and Rural Producers Organisations - Fisheries Sub-grant - Crocevia towards Capacity Building for Implementation of SSF Guidelines	350.000	Non-Governmental Organisations	Centro Internazionale Crocevia
Large	WCA	2017	NA	42 months	Mali	Inclusion of rural youth in poultry and aquaculture value chains in Mali	2.810.000	Farmer/producer organisation	Coordination Nationale des Organisations Paysannes
Large	PMD	apr-17			Congo; Angola	Aquaculture assessments and value chain pilots for improving fish supply, employment and nutrition in DR Congo and Angola	2.400.000	CGIAR	IITA, WorldFish

Questions used to guide the analysis

Overarching issues

- IFAD's overall performance in supporting livelihoods that include aquatic resources from SSF, SSA, CZ and in SIDS, including with regards to financial investment, compared to the organization's performance in other sectors.
- Extent to which IFAD's mandate and focus on livelihoods, poverty reduction, food and nutrition security and sustainable natural resources management, have informed the organization's interventions in supporting livelihoods that include aquatic resources from SSF, SSA, CZ and in SIDS.
- IFAD's typical targeting and beneficiaries' profile in the organization's interventions in supporting livelihoods that include aquatic resources from SSF, SSA, CZ and in SIDS and integration of youth and women in these interventions.
- IFAD's role and niche in supporting livelihoods that include aquatic resources from SSF, SSA, CZ and in SIDS, considering the potential for partnerships with other organizations.

Relevance

- Was the intervention relevant to IFAD/host country objectives
- Are there any obvious failures in the project?
- Are there lessons to be learnt with respect to relevance?
- Was the contribution from aquatic resources to poverty reduction recognised, and how?
- Did the project adopt an integrated approach to the use of aquatic resources from SSF, SSA, CZ and in SIDS?
- What was the focus (specific objectives) of the project, e.g.: household livelihoods; sustainable NRM; infrastructures; value-chain development
- To what extent have Health and Safety and Safety at Sea been taken into account in projects' design?

Targeting

- What criteria have been used to target beneficiaries in SSF, SSA, coastal zones and SIDS? Have these criteria changed over time?
- Were young people and women explicitly targeted?
- What social and economic categories benefitted from the intervention?
- Were participatory approaches used to select project participants/beneficiaries? If so, what form did this take?
- Has targeting been successful?

Effectiveness

- How effective was the intervention in achieving project objectives, and IFAD's policy objectives?
- Has IFAD's support to rural organizations been successful?
- Are there lessons to be learnt from successes and failures which might improve effectiveness?
- How far was IFAD successful in developing a participatory approach and did this have an effect in achieving results?
- Was IFAD suitably organised and did it have the human resources to work effectively in this project?

Rural poverty impacts

- Has the intervention been successful/unsuccessful in reducing poverty?
- Did the project have a differential impact on different social categories (youth, the old; unskilled versus skilled; male versus female)?

- How can the impact of IFAD's interventions be improved?
- Have project activities contributed to improved levels of food and nutrition security?
- Is there evidence of negative impacts (externalities?) on non/target groups and of mitigating measures put in place? If so, are there lessons to be learnt?
- Was there any impact at the institutional and policy level?

Gender equality and women's empowerment

- How far have project design and implementation been in line with IFAD's gender policies?
- How successful was the project in addressing gender issues?
- Are there cases of good practice which should be highlighted?
- Are there aspects of gender which have been ignored?

Sustainability

- How far has sustainability been an issue in project design and implementation?
- To what extent were the results of the intervention sustainable?
- Is there anything to be learnt about differences in sustainability (ecological, financial, social)?

Natural resources management and climate change adaptation

- To what extent did the project integrate sustainable NRM and climate change adaptation measures in its design and implementation?
- Have specific issues, such as water quantity and quality in aquaculture, bycatch and post-harvest waste in capture fisheries, been taken into account?
- How far did the intervention make a positive impact on these issues?

Report of the Senior Independent Advisor, Malcom Beveridge

Background to the independent advisor's report

1. This adviser was asked to submit written remarks on the final draft of the report: IFAD's Support to Livelihoods Involving Aquatic Resources from Small-Scale Fisheries, Small-Scale Aquaculture and Coastal Zones, prepared by IFAD's Independent Office of Evaluation, as well as on the conduct of the evaluation process. The adviser welcomed the opportunity to scrutinise and provide comment on an earlier, near final draft.

Timeliness and appropriateness of the study

2. The Background section to the Evaluation Synthesis (ES) highlights the fact that fish (including shellfish) is a high protein, nutrient dense food and its supply via fisheries and aquaculture is highly important in food and nutrition security and livelihood terms, especially in Low Income Food Deficit Countries. Although global per capita fish supplies have doubled over the past 50 years, despite a doubling of the human population over the same time period, there are three-fold discrepancies in per capita consumption between LIFDCs and developed countries. Many also question the sustainability of future sector growth in the face of growing challenges. Fisheries production has stagnated since the late 1980s due to overfishing and environmental degradation and aquaculture will have to account for production increases for the foreseeable future. Aquaculture, however, is not a substitute for capture fisheries, especially from a livelihoods perspective. Moreover, aquaculture production methods continue to intensify, increasing competition with agriculture for ecosystem services such as land and water. Both sub-sectors are also highly vulnerable to climate change[65].

3. IFAD has been supporting aquatic resources based livelihoods - small-scale fisheries, small-scale aquaculture and use of coastal resources - since 1979. The Introduction to the Evaluation Synthesis makes abundantly clear that fishing, aquaculture and aquatic resource use are very relevant to the mandate of IFAD and to the organisation's contribution to the implementation of Agenda 2030.

4. The purpose of ES is to pull together findings and draw lessons from independent IOE evaluations in order to promote learning and collective reflection and to help improve strategic and operational performance. Given the importance of fish, IFAD's mandate, and long-term support to the world's poor who depend on aquatic resources, the present ES – the first such exercise - is judged both necessary and very timely and perhaps even somewhat overdue.

Background to the ES – objectives, definitions and analytical framework

5. The objectives of the present ES are clearly set out and are entirely consistent with other ES. The term 'coastal zone' is often confined to refer to the areas bordering seas and estuaries; a better term might have been 'coastal and riparian zones', the latter more often being used in the context of the margins of lakes, rivers and wetlands. No matter, however, as 'coastal zone' was used in the ES in its widest possible context.

6. The evidential basis for the ES was drawn as widely as possible and included all IFAD evaluations conducted between 2009 and 2018 on work in support of rural people whose livelihoods depend partly of fully on coastal zone resources (CSR),

[65]Barange, M, *et al.* (Eds.). 2018. *Impacts of Climate Change on Fisheries and Aquaculture: Synthesis of Current Knowledge, Adaptation and Mitigation Options*. *FAO Fisheries Technical Paper* 627. Rome, FAO.

small-scale fisheries (SSF) and small-scale aquaculture (SSA) as well as a mapping and analysis of all IFAD supported work on SSF, SSA and CSR approved since 1979. Annexes II-IV helpfully detail the scope of the work considered.

7. The detailed case studies that help inform the conclusions and recommendations are entirely appropriate and well justified.

8. The absence of a corporate unifying Theory of Change for IFAD's work in support of those dependent on CSR, SSA and SSF necessitated the elaboration of an analytical assumption in the Approach Paper to guide the analysis in the present ES. It is judged comprehensive, appropriate and workable, especially when complemented by IOE criteria on gender, natural resources management, climate change and poverty.

9. The focus and methodology are well elaborated and conceptualised and are judged sufficiently robust to be able to draw valid conclusions.

Overview of the Evaluation Synthesis

10. The report is comprehensive, well organised and well written, and informative and just as long as it needs to be. It is thus informative and thoroughly readable and readily facilitates an appreciation of the global context of aquatic resources, the sectors that exploit them, the work that IFAD has done in support of the poor who depend on SSF, CSA and CSR for all or part of their livelihoods and to what effect, lessons learned and recommendations.

Global context on aquatic resources

11. This section presents a necessarily condensed but accurate picture of the sector, identifying the main challenges faced. It should be noted that pollution encompasses not only issues of plastic wastes but also eutrophication of coastal zones, rivers and lakes, which to date have created more than 400 massive areas of hypoxia (low/zero dissolved oxygen areas) (e.g. along the East Coast of the US and the Great Lakes), increasing incidences of harmful algal blooms as well as the presence of persistent organic pollutants (e.g. dioxins) that affect aquatic food webs and pose a risk to consumers of certain aquatic foods.

Overview of other organisations' work on aquatic resources

12. The overview focused on other key agencies that work on aquatic resources and the people who to a greater or lesser extent rely on them. It synthesises the findings from the few evaluations that have been done to date. No significant omissions are noted. The resources dedicated to aquatic resources vary considerably among agencies with little apparent rhyme or reason. The key findings from available evidence are well captured and the appropriate lessons teased out, although more so with respect to capture fisheries than to aquaculture. Despite growing support to member states, there has been a lack of impact analysis. The great majority of marine fish stocks remain fully or over-fished, with major consequences for marine biodiversity and resilience. The significance of freshwater fish in livelihood, food and nutrition security terms remains hugely under-estimated with the result that development projects such as dams often go ahead with little appreciation of the true consequences for poverty, food and nutrition security.

Overview of IFAD's engagement

13. The ES provides compelling evidence that IFAD's strategic frameworks and sector policies have paid limited attention to coastal aquatic resources, fisheries and aquaculture. Most tellingly in this regard, IFAD's current Strategic Framework makes no mention of Sustainable Development Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development) in its portfolio of target SDGs (SDGs 1, 2, 5, 10, 13). By contrast, a significant number

of Country Strategic Opportunity Papers/Programmes include small-scale fisheries and aquaculture in their programmatic commitments.

14. Both the limited attention at corporate level and, until recently, the lack of in-house expertise are identified as key contributing factors to IFAD not perceiving the need for generation of knowledge products within the aquatic sector and thus for the organisation remaining a relatively minor player in the sector. The ES notes that this is despite the fact that IFAD's engagement with the SIDS since 2014 has explicitly recognised the need for a focus on aquatic resources, fisheries and aquaculture.

15. The analysis in the ES convincingly argues that more in-house resources as well as systematic and timely planning would both improve the quality of collaboration with key partners such as WorldFish and FAO and the quantity and quality of outcomes.

Analysis of IFAD's portfolio

16. This section is logically constructed, sub-sector by sub-sector - including an analysis of SIDS - summarising the projects funded, before presenting the results of the analysis using the criteria of relevance and design, targeting, effectiveness, rural poverty impact, sustainability of benefits, gender equality and women's empowerment, and environment and natural resources management and adaptation to climate change. The analysis was as rigorous as could be given the evidential material available and lack of a corporate Theory of Change for the sector. Each sub-sector was dealt with consistently. The findings are clearly and objectively drawn and synthesised.

17. A table comparing IOE evaluation ratings for aquatic and non-aquatic projects indicates that aquatic projects did not perform particularly well across almost all evaluation criteria for reasons clearly and persuasively identified in the synthesis of findings.

Three country case studies

18. The decision to carry out a more detailed analysis of a number of case study countries is well justified and the countries chosen – Bangladesh, Maldives and Mozambique - are entirely appropriate in terms of geography, long-term focus and exemplars of issues.

19. The key points raised here – the importance of contextual knowledge, long-term involvement, the need for careful integration and articulation of project elements to achieve sustainable outcomes - are well made. The issue of the impact of IFAD's activities in the aquatic sector on the 'hard core poor' was explored in some detail in Bangladesh and highlights the fact that the outcomes were at best ambiguous, pointing to the need for a better articulated organisational Theory of Change with regard to aquatic resources and the development of appropriate, project-specific monitoring and evaluation criteria.

Conclusions, lessons learnt and recommendations

20. The conclusions drawn are consistent with the findings from the analysis, albeit that there was a lack of evidence to allow for a truly robust evaluation of performance. There seems to have been a lack of corporate recognition of the potential of the aquatic resources sector to meet IFAD's agenda of reducing rural poverty and improving food and nutrition security, as evidenced by the - until recently - lack of technical expertise and reliance on external consultants, and the absence of SDG 14 from IFAD's perceived role in contributing to implementation of Agenda 2030, as elaborated in the current Strategic Framework (2016-2025). Added to this, aquatic resources have often been add-ons to other projects and the lack of effective monitoring and evaluation of project activities and outcomes. The

notable successes with regard to impacts on poverty and livelihoods have been somewhat tarnished by the fact that poorest households have not always been the primary beneficiaries, despite intentions. Little attention has been paid to sustainable management of aquatic resources.

21. Lessons are drawn from the above analysis and synthesis, although whether they have been learnt or not remains moot. That there is a need for in-house technical expertise, for example, was explicitly recognised in the appointment of a technical expert in 2015. However, the others – to do with focus, norms and policies, long-term commitment, monitoring and information sharing – would seem to have yet to be fully reflected on by IFAD.

22. The recommendations are noted and fully supported. Although highlighted in several areas of the ES it might have been appropriate to include a specific recommendation to include aquatic resources in the Strategic Framework, especially through inclusion of SDG 14. Again, a specific recommendation on the need for a sector specific corporate ToC might have been useful here. Finally, it may also have been possible to go further with regard to Recommendation 1 and to call for an increase in investment in the sector above current levels, especially with regard to IFAD's commitments to SIDS.

23. An analysis and elaboration of IFAD's comparative advantage, performance and value proposition with regard to aquatic resources would help facilitate a more productive engagement with potential key partner organisations such as WorldFish and FAO.

Concluding remarks

24. The reviewer hopes that the findings and lessons learnt in this excellent evaluation will be full and prompt consideration and that the recommendations are speedily implemented.

25. Finally, the reviewer wishes to express his appreciation in being invited to participate in the present evaluation exercise.

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