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MID-TERM REVIEW

Mainstreaming Biodiversity Conservation and Sustainable Use into Inland Fisheries Practices in Freshwater Ecosystems of High Conservation Value (IFish)

GCP/INS/303/GFF & GEF ID: 5759

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, REPUBLIC OF INDONESIA
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Mid Term Review Team, June 2021
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Sheila Teta Carina, Team Member (MTR Inception Phase, 2020)

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Addendum - August 2021

This note was added after the final MTR report was shared with FAO in June 2021 to clarify the post-MTR stakeholder review and feedback process, as the customary good practice of enabling key project stakeholders to engage directly with the evaluation team following an MTR did not take place. This process generally takes place in-country before the MTR report is finalized, and provides the opportunity for stakeholders to discuss review findings and recommendations, seek clarifications and share their feedback. The process is expected to include the project team, the National Project Coordinator, the executing and implementing partners and other key national and subnational stakeholders.

Due to Covid-related travel restrictions, FAO Indonesia had proposed a virtual meeting for the MTR team to present and discuss its draft findings and recommendations with key government stakeholders, FAO and the IFish project team. Expecting to follow the standard process a final draft MTR report was shared with FAO Indonesia in April 2021 for circulating to key stakeholders for review. The MTR team recommended that the draft Executive Summary (ES) be translated into Bahasa for distribution to national stakeholders to facilitate their feedback. However, without the knowledge of the MTR team, only extracts of the ES were translated and printed in Bahasa. The printed version did not indicate clearly that it was an extract of the ES and a draft. The selected extracts were also not in line with the MTR team's suggestions for shortening the ES. Although the MTR team was subsequently informed that the printed Bahasa ES was circulated together with the draft English MTR report, it is not clear to the MTR team who received these copies or how their comments were collected, if at all. The MTR team did not receive any comments from this process.

The MTR team repeatedly shared its concerns with FAO about the process and the lack of opportunity for key national stakeholders to share their feedback on MTR findings and recommendations with the MTR team and to seek or provide clarifications. Finalization of the report was delayed as the team waited for potential feedback from national stakeholders to complete the process. Unfortunately, such a meeting never took place despite repeated enquiries from the MTR team.

Extensive written feedback on the draft MTR report of April 2021 was received from the FAO GEF Coordination Unit's M&E Team in Rome. Written feedback and some clarifications were also provided by FAO Indonesia and the IFish Project team. No written or verbal feedback on MTR findings and recommendations was received from national or subnational stakeholders. The final MTR report was shared with FAO in early June 2021 as there was no clarity on whether and when any feedback would be received from national stakeholders. Following a meeting with the acting FAOR Indonesia in July, the MTR team waited several more weeks in case of feedback from national stakeholders before preparing and including this Addendum in the final MTR report.

Acronyms and Abbreviations

ASC	Aquaculture Stewardship Council
AWP	Annual Workplan
BAPPENAS	*Badan Perencanaan Pembangunan Nasional* (National Agency for Planning and Development)
BAPPEDA	*Badan Perencanaan Pembangunan Daerah* (Local Agency for Planning and Development)
BAST	*Berita Acara Serah Terima* (Handover Statement)
BBI	*Balai Benih Ikan* (Fish Seed Office)
BD	Biodiversity
BH	Budget holder
BIG	Agency for Geospatial Information (Indonesia)
BKSDA	*Balai Konservasi Sumberdaya Alam* (Natural Resource Conservation Office)
BPPT	*Badan Pengkajian dan Penerapan Teknologi* (Agency for Assessment and Application of Technology)
BRG	*Badan Restorasi Gambut* (Peatlands Restoration Agency)
CBD	United Nations Convention on Biological Diversity
CBO	Community Based Organization
CEO	Chief Executive Officer
CPF	Country Priority Framework (FAO)
CSO	Civil Society Organization
DG	Directorate General
EAA	Ecosystem Approach to Aquaculture
EAFM	Ecosystem Approach to Fisheries Management
EAR	End of Assignment Report
EM	Evaluation Matrix
ESS	Environmental & Social Safeguards
FAO	Food and Agricultural Organization of the United Nations
FAOID	FAO Indonesia
FAOR	FAO Representative
FIRF	The FAO Fisheries and Aquaculture Department, Marine and Inland Fisheries Service
FLO	Funding Liaison Officer
FMA	Fishery Management Areas
FO	Field Officer
FPIC	Free, Prior Informed Consent
FPMIS	Field Programme Management Information System
GEBs	Global Environmental Benefits
GCU	FAO GEF Coordination Unit in Investment Centre Division
GEF	Global Environment Facility
GIS	Geographical Information System
GoI	Government of Indonesia

IBSAP	Indonesian Biodiversity Strategy and Action Plan
IFRDMD	Inland Fisheries Resource Development & Management Department
IIFGIS	Integrated Inland Fisheries Geographical Information System
IW	Inception Workshop
KKP	Kementerian Kelautan dan Perikanan (MMAF)
KLHK	*Kementerian Lingkungan Hidup dan Kehutanan* (MoEF)
KMSB	*Koperasi Mina Sidat Bersatu* (Mina Sidat Bersatu Cooperative)
LIPI	*Lembaga Ilmu Pengetahuan Indonesia* (Indonesian Institute of Science)
LoA	Letter of Agreement
LTO	FAO Lead Technical Officer
MEL	Monitoring, Evaluation and Learning
M&E	Monitoring and Evaluation
MMAF	Ministry of Marine Affairs and Fisheries (KKP)
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forestry (KLHK)
MSC	Marine Stewardship Certification
MTR	Midterm Review
NC	National Consultant
NCE	No-Cost Extension
NE	National Expert
NGO	Non-Governmental Organization
NMTPF	National Medium-Term Priority Framework (FAO)
NPC	National Project Coordinator
NPM	National Project Manager
OFP	GEF Operational Focal Point
PIR	Project Implementation Review
PMU	Project Management Unit
PP	*Peraturan Pemerintah* (Government regulations)
Permen	*Peraturan Menteri* (Ministerial Decree)
PPR	Project Progress Reports
PSC	Project Steering Committee
PTF	Project Task Force (FAO)
Pusriskan	*Pusat Riset Perikanan* (Fisheries Research Centre)
RAP	FAO Regional Office for Asia Pacific
REDD	Reduction of Emissions from Deforestation and Forest Degradation
RF	Project Results Framework
RPP	*Rencana Pengelolaan Perikanan* (Fisheries Management Plan)
RPJMN	*Rencana Pembangunan Jangka Menengah Nasional* (National Mid-Term Development Framework)
RPJMD	*Rencana Pembangunan Jangka Menengah Daerah* (Local Mid-Term Development Framework)
RQ	Review Question
RTRW	*Rencana Tata Ruang Wilayah* (District Spatial Plan)

SC	Service Contractor
SEAFDEC	Southeast Asia Fisheries Development Centre
SMART	Specific, Measurable, Achievable, Relevant, and Time-bound
SNI	*Standar Nasional Indonesia* (Indonesian National Standard)
SO	Strategic Objective
SOP	Standard Operating Procedure
SP	Service Provider
STA	Senior Technical Advisor
TABE	Tahasek Belum Foundation
TNC	The Nature Conservancy
ToC	Theory of Change
ToR	Terms of Reference
TT	Tracking Tool (GEF)
TWG	Technical Working Groups
UNEG	United Nations Evaluation Group
USD	United States Dollar
UU	*Undang-Undang* (National Law)
WWF	World Wildlife Fund
WPP PUD	*Wilayah Pengelolaan Perikanan Perairan Umum Daratan* (Inland Fisheries Management Area)

EXECUTIVE SUMMARY

Introduction

1. This report presents the findings and recommendations of the independent Mid-term Review (MTR) of the FAO/GEF/MMAF project '*Mainstreaming Biodiversity Conservation and Sustainable Use into Inland Fisheries Practices in Freshwater Ecosystems of High Conservation Value (IFish)* ' (GCP/INS/303/GFF and GEF ID 5759). It covers the implementation period from June 2017 – December 2020 and also the project design, which was completed during the project preparation phase between 2014-16.

Background

2. The IFish project was approved for implementation by the GEF in August 2016 during GEF-5 with a total budget of USD 40,354,886 for four years. This includes USD 6,192,694 of GEF funding and a further USD 34,162,192 of co-financing from the Government of Indonesia, FAO and other sources. The project is expected to contribute to the targets of the GEF Biodiversity Focal Area Strategy objective on Mainstreaming Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors. Project implementation began in June 2017 and is currently scheduled to end in June 2021 (see Annex 2 for further details).

3. The IFish project has two objectives and four integrated components as shown below:

   Environment objective: to strengthen the management framework for sustainable use of inland aquatic biodiversity to increase the protection of high conservation-value freshwater ecosystem.

   Development objective: to increase the provision of ecosystem goods and services and enhance food security for local people dependent on inland fisheries for their livelihoods.

   Component 1: Mainstreaming of inland aquatic biodiversity into resource development and management policy.

   Component 2: Demonstration of conservation and sustainable use of inland aquatic biodiversity.

   Component 3: Monitoring and assessment of inland aquatic biodiversity.

   Component 4: Project monitoring and evaluation and adaptive management

4. Components 1-3 are intended to address the main barriers to the effective protection and management of high conservation-value freshwater ecosystems in Indonesia. Component 4, which is cross-cutting, seeks to support the successful delivery of project results under Components 1-3 through effective monitoring, evaluation and adaptive management. The project includes activities at both national and subnational level, with a focus on three different inland fisheries and traditional fisheries systems and practices in five demonstration districts. The target fisheries are: eel (*Anguilla* species) in Cilacap and Sukabumi Districts in Central and West Java, respectively; clown knife fish (*Chitala* species) in Kampar District in

Riau; and Asian arowana (*Scleropages formosus*) in Kapuas and South Barito Districts in Central Kalimantan. The project also proposes to revitalize traditional *beje* fisheries in Kapuas and South Barito and to strengthen customary practices to protect fish stocks such as *lubuk larangan* in Kampar.

Purpose, use and conduct of the MTR

5. An MTR is both a requirement and a key monitoring milestone for full-sized GEF–funded projects such as IFish. The MTR is also required by FAO for project monitoring and reporting purposes and is included in the IFish Monitoring and Evaluation (M&E) plan in the Project Document. As stated in the MTR Terms of Reference (ToR, see Annex 1), the purpose of the MTR is principally to provide an independent, external assessment of project progress towards expected project outputs, outcomes and objectives, and to identify areas for improvement and/or corrective action together with recommendations for improving the delivery and sustainability of the project's intended results. The MTR is specifically required to assess project relevance, efficiency and factors affecting performance, as well as risks to the sustainability of project results and cross-cutting issues such as those relating to gender, indigenous peoples and marginalized and vulnerable communities and groups. As such, the MTR presents an invaluable opportunity for reflection, analysis and learning by all key project partners, and, where needed, for implementing course corrections and improvements.

6. The primary intended users of this MTR Report are FAO, especially FAO-Indonesia (FAOID), including the Project Management Unit (PMU), and the Ministry of Marine Affairs and Fisheries (MMAF/KKP), particularly the Fisheries Research Centre (Pusriskan), which hosts the PMU and whose Director is the National Project Coordinator (NPC), and MMAF's International Cooperation and Public Relations Bureau, as well as several other counterpart MMAF directorate generals (DGs) and agencies. Important users at the subnational level include the local government Fisheries Offices in the project demonstration districts and other local government partners. Review findings and recommendations are of particular importance to the national Project Steering Committee (PSC), as the MTR is a key input into the PSC's forthcoming discussions and decision on a no-cost project extension (NCE) beyond the current planned end date of June 2017. MTR findings and recommendations will also be of importance to the GEF Operational Focal Point (OFP) in the Ministry of Environment and Forests (MoEF/KLHK) as well as its Directorate Generals responsible for wetlands conservation management and its corresponding local government agencies in the project districts.

7. The MTR was conducted between late September 2020 and March 2021. It included a preparatory inception phase in October-November 2020, during which the MTR methodology was developed and the MTR Inception Report prepared, and an intensive data collection phase in January-February 2021. Methodology development and data collection were guided by the MTR ToR (Annex 1), FAO and GEF guidance on planning and conducting MTRs (Annex 5), the preliminary Theory of Change (Annex 6), the project Results Framework

(Annex 7) and the Evaluation Matrix prepared by the MTR team during the inception phase (Annex 4), which included additional indicative sub-questions to guide the MTR desk review and stakeholder interviews. Details of the stakeholder consultation process on initial MTR findings and recommendations are given in the August 2021 Addendum to this report (p.6).

8. The overarching questions that guided the MTR based on project objectives, were:

- What difference is the project making to the management and sustainable use of inland fisheries, the conservation of associated ecosystems and biodiversity and to strengthening local livelihoods and food security based on inland-fisheries?
- What changes are needed in the remainder of the project to improve and strengthen the delivery of project results and long-term impact and sustainability?

9. The following specific review questions (RQs) were addressed in relation to both these overarching questions and the original project plan as described in the Project Document, and subsequent project implementation:

RQ1 Relevance & Ownership To what extent are the project objectives and planned outcomes consistent with country priorities, the GEF Biodiversity Focal Area Objectives, the FAO Country Programming Framework and Strategic Objectives, and the needs and priorities of targeted beneficiaries?

RQ2 Effectiveness To what extent has the project delivered on each of its planned outputs and outcomes and what is the likelihood of the project objectives and Global Environmental Benefits (GEBs) being realised ultimately?

RQ3 Efficiency To what extent has the project been implemented efficiently (i.e. in a timely manner) and cost-effectively, and how far has management been able to adapt to any changing conditions to improve the efficiency of project implementation?

RQ4 Factors affecting performance What have been the major factors influencing project delivery and progress towards results?

RQ5 Cross-cutting issues How have considerations regarding gender, youth, vulnerable and marginalized groups and indigenous peoples been taken into account in project design and implementation and have environmental and social safeguards been applied?

RQ6 Sustainability What is the likelihood of project results being sustained after the end of the project and the planned Global Environmental Benefits being realised? What are the main risks to the sustainability of project results?

10. The MTR team included an international expert from the United Kingdom, the Team Leader, and two different national experts, one during the inception phase and another during the main data collection phase. The entire MTR took place remotely due to the Covid-19 global pandemic and related travel restrictions. Data collection tools included an extensive desk review, in-depth consultations with FAO and the PMU to clarify and fill information gaps and detailed semi-structured interviews with key stakeholders identified through a systematic stakeholder analysis. Additionally, a short on-line survey was conducted for PMU staff.

Main Findings

RQ 1 Relevance and Ownership

11. **Finding 1** The project has a high degree of global, national and local strategic relevance and is well-aligned with the policies, priorities and objectives of national and local government, particularly to those of MMAF and project district Fisheries Offices, as well as to the objectives and priorities of the GEF and FAO. If the project's planned outcomes and overall objectives are realised, then the project is likely to be also very relevant to local communities and beneficiaries. However, it will not be possible to realise the planned results or anticipated longer-term benefits for inland fisheries, local communities and inland aquatic biodiversity if the project ends in June 2021.

12. **Finding 2** There is strong national and local ownership of the project, but mainly by MMAF and the project district Fisheries Offices. The extent of ownership by local communities, including project beneficiaries, was not assessed but is unlikely to be widespread, given the narrow scope and limited extent of project implementation to date and the relatively small number of beneficiaries engaged so far.

RQ2 Effectiveness: Progress towards outputs

13. **Finding 3** Delivery of the project's 21 planned outputs and related MTR targets has been mixed, with many outputs delayed and some key ones unlikely to be realised. Most progress has been under Component 1, with some promising policy-related results. Demonstration work under Component 2 is most advanced in relation to eel in Cilacap and Sukabumi. The most critical output under Component 4 – an M&E system that also monitors outcome-level progress and encourages adaptive management – remains to be effectively implemented. As a result, there is insufficient ability to track progress towards results or the impacts of delays in one area on other related areas and inadequate attention has been given to the fundamental linkages between Components.

14. **Finding 4** A number of project activities are not well aligned with the original project design and the delivery of planned outputs and outcomes, particularly under Components 1 and 2. For instance, there has been considerable investment in developing and proposing revisions to district spatial plans under Component 1, few of which have been approved or are likely to be implemented during the project timeframe. District plans (RTRW) also cannot be easily translated into integrated community-based land/wetlands management plans under Component 2 as originally envisaged in the Project Document. Other outputs, notably the Fishery Management Plans for clown knife fish and arowana, have been stalled due to implementation obstacles, while participatory land use plans and Ecosystem Approach to Fisheries/Aquaculture Management (EAFM/EAA) plans have not yet been developed despite USD 240,000 budgeted for these activities in Years 1 and 2. This has led to a greater emphasis on developing 'ex-situ' aquaculture and wild restocking instead and a shift away from the original project aim of piloting site-based strategies to improve inland capture

fisheries management and use through multisector approaches and local community participation.

15. **Finding 5** While activity implementation and progress towards some outputs has accelerated in 2020 (e.g. under Component 3), a lack of proper sequencing of inter-related activities within and across project components is undermining the quality and/or usefulness of certain outputs. The latter has been further compounded by the variable quality of inputs by Service Providers and Service Contractors.

RQ2 Effectiveness: Progress towards outcomes

16. **Finding 6** With limited progress on many outputs (Finding 3), overall progress towards outcomes is also extremely delayed with very few mid-term targets achieved after 3.5 years of implementation.

Outcome 1.1: Critical knowledge on the aquatic biodiversity of inland waters incorporated into sector policies and development plans

17. **Finding 7** There is limited progress towards Outcome 1.1 as measured by the Results Framework indicator. The mid-term target is to have 2,000 km^2 of *'critical inland aquatic ecosystems under sustainable management plans'*. The project has aimed to do this through revisions to five district spatial plans (the RTRWs) but this target has not been met in terms of either the coverage of critical (i.e. high conservation value) inland aquatic ecosystems or its sustainable management. Only the spatial plan for Kampar has been approved to date and most of the revisions proposed by the project relate to establishing hatcheries and restocking sites.

18. **Finding 8** A major gap under Outcome 1.1 is the lack of any systematic review and synthesis of the national and district-level policies, plans and legal frameworks of all sectors relevant to the effective management and sustainable use of inland aquatic resources and ecosystems, such as those of the Ministry of Environment and Forestry, Ministry of Agriculture, Ministry of Public Works and Housing and Ministry of Energy. Such a review and a gap analysis were planned in the Project Document but have yet to be undertaken by the project. Without these, IFish will be unable to effectively identify and evaluate different policy options for mainstreaming inland aquatic biodiversity and also miss potential synergies and complementarities with other key sectors, not just under this outcome but across all project components. A systematic policy review, together with a clear analysis of the critical and strategic gaps that could be filled by IFish would also help to clarify the added 'incremental' value of the GEF's support.

19. **Finding 9** There are some noteworthy examples of progress under Outcome 1.1 that are not currently captured by the outcome indicator. These include the recent MMAF Ministerial Decrees on inland Fishery Management Areas and the limited protection of eel. Although operationalizing these will require further investment and time, they are nevertheless

potentially promising developments, provided there is systematic follow up to ensure their adoption and implementation at the local level.

Outcome 1.2: Strengthened capacities of national and local environmental and fisheries professionals as well as local communities to address threats to inland aquatic ecosystems, including inland fisheries

20. **Finding 10** There has been very limited progress towards Outcome 1.2 due to a combination of factors including weaknesses in the original project design, changes in the implementation context and more emphasis being given to demonstrations on developing 'ex-situ' aquaculture than on strengthening the sustainability of inland capture fisheries and addressing threats through site-based measures. Service Providers commissioned to develop training materials did not deliver to the required standard, while existing FAO training materials on Ecosystem Approach to Fisheries/Aquaculture Management (EAFM/EAA) have not been used. Site-based training was suspended in 2020 due to Covid-19. As a result, there has been virtually no training so far on addressing threats to inland aquatic ecosystems and fisheries through site-based EAFM/EAA or other integrated approaches.

21. **Finding 11** Unless the project accelerates action to develop and implement site-based land management/EAFM plans, it will be difficult to achieve the end of project target for Outcome 1.2 of enhanced capacity of local communities and fisheries and environmental professionals to implement land management plans covering 60,000 ha of critical inland aquatic ecosystems. This is because the district spatial plans (RTRW-K) are not the same as the a site-based land management/ EAFM plans envisaged in the Project Document (see Finding 16).

Outcome 1.3: Improved multi-ministry/agency communication and collaboration on management of inland aquatic ecosystems

22. **Finding 12** There has been very little national-level communication and collaboration between the fisheries sector and other relevant sectors on the management of inland aquatic ecosystems, although this is an integral part of the project's biodiversity mainstreaming strategy. This is a major gap since threats to inland aquatic ecosystems can only be effectively addressed through greater multisector cooperation. No formal multi-ministry coordination mechanism has been in place since 2018. There has been greater communication and collaboration at the district level, albeit without any formal coordination mechanism up to now, although the project hopes to establish district TWGs. Stronger engagement at the district level is probably due to the presence and active engagement by IFish Field Officers (FOs) in each district as well as the project's spatial plan-related work.

Outcome 1.4: Improved biodiversity status of three key inland fish species

23. **Finding 13** There has been a lack of scientific and technical rigour in describing the taxonomy and conservation status of one of the three project target species since the project design phase up to the latest PIR of 2020. This species is referred to as **clown knife fish** (***Chitala chitala)*** in some parts of the GEF CEO endorsement document and the Project Document and described as threatened (e.g. Project Document p.1 & pp.36-37: Table 4). Elsewhere in the Project Document, the species is only referred to by its genus as *Chitala* sp. and 'clown knife fish' is used to refer to multiple *Chitala* species as if synonymous with *belida*, the Indonesian generic name for all *Chitala* and other featherback species (Executive Summary, p. 5, p.29, p.38); in one place the species is given as *Notopterus borneensis* (Annex 4, p.92). According to the PMU and other information sources, *Chitala chitala* does not occur in Kampar and the species targeted by the project may in fact be **Giant featherback** (***Chitala lopis)***, which, however, was declared extinct by IUCN in August 2019.[1] Authorities interviewed by the MTR confirmed that while the genus is definitely *Chitala*, it could be either *C. lopis* or *C. hypselonotus* and that further investigations are needed for a conclusive identification. Although the species in Kampar may still be *C. lopis*, these issues were never raised or clarified in the PIRs or PPRs or indeed in the Project Document. To add to the confusion, both the 2020 PIR and the 2019 PPR refer to clown knife fish and giant featherback as if they are the same species.

24. **Finding 14** The mid-term target has not been met and the project is extremely unlikely to achieve the end of project target of a 10% increase in stocks of eel and clown knife fish (whether *Chitala chitala* or another *Chitala/belida* species) in demonstration areas. Furthermore, the Fishery Management Plans (or RPP) planned under Outcome 1.4 do not appear to be a suitable policy tool for promoting sustainable fisheries for two of the three target species as *Chitala/belida* and Asian arowana are both legally protected. The local population status of different *Chitala* species and of arowana is also not known. The main alternative strategy to FMPs/RPP proposed for *Chitala/belida* and arowana are ex-situ aquaculture and wild restocking (see Finding 4). Apart from being untested[2], this strategy alone will not deliver the project's broader planned results on sustainable capture fisheries of these species and related biodiversity outcomes.

[1] https://www.iucnredlist.org/species/157719927/89815479#

[2] The technology and methods of *belida* aquaculture are still very new and remain to be successfully replicated in Kampar and scaled. Successful wild restocking also requires complementary measures to address other threats to the target species and their habitats.

Outcome 2.1: Rural communities pursue improved livelihoods through better fisheries production and conservation in 5 pilot areas including 12,385 households on 60,000 ha of wetland habitat

25. **Finding 15** Although the mid-term target of having 5 operational project demonstration sites has been partly met, activities have been limited in most sites other than Cilacap and to some extent Sukabumi. More importantly, the planning and implementation of demonstration activities has not been informed by site-based socio-economic, gender or ecological assessments as envisaged in the Project Document. Without some major course corrections and improvements, it is very unlikely that most of the end of project targets for Outcome 2.1 will be achieved. Even in Cilacap, very few households are likely to be benefiting directly from the project as a result of sustained improvements in livelihoods through better fisheries production and conservation given the limited scale of demonstration activities to date and the problems encountered with eel aquaculture. Given this, it is likely to be very difficult to achieve the end of project target of 12,385 households benefiting directly from the project demonstration pilots, even with changes to current intervention strategies.

26. **Finding 16** A major gap under Outcome 2.1 is the lack of investment or plans to develop demonstrations on site-based participatory integrated wetlands and fisheries management using EAFM principles and tools, a key element of the original project design (see Finding 4). There is also a disconnect between Component 1 and Component 2 in terms of how to meaningfully translate the district spatial plans (Outcome 1.1) and FMPs (Outcome 1.4) into 'improved management' of 'critical inland aquatic ecosystems' at the local community level under Outcome 2.1 (see Finding 11). Demonstration activity planning and implementation to date have emphasised aquaculture through local fish farming cooperatives and in district Fisheries Office facilities with plans for scaling fish farming together with wild restocking. Some preliminary work has been undertaken to develop interventions on revitalizing *beje* fisheries systems in the Kalimantan sites, although the extent to which these are truly 'traditional' or lend themselves to capture fisheries management of arowana, or to conservation management generally, is unclear.

27. **Finding 17** The Project Document's approach to EAFM in inland waters appears to differ from Indonesia's approach, which draws on its experiences from the marine sector. The former involves site-level participatory assessments and fisheries management planning, while the latter appears to begin with more macro-level assessments of the EAFM potential of different areas using a set of environmental, social and economic indicators to assign scores. These differences, which have caused implementation challenges, have not been explained and clarified in project PIRs and PPRs, although the development and implementation of EAFM/EAA plans was an integral part of the original project design for demonstration activities under Outcome 2.1 (also see Findings 4 and 11).

Outcome 2.2: Improved capacity for conservation and market access developed for key inland fishery resources through fishery value chain analysis of two eel fisheries

28. **Finding 18** The mid-term target has not been met and overall progress towards this outcome has been slow as the eel value chain analyses have not been completed. However, preliminary work has been undertaken and end of project targets could still be met with some adjustments and a clearer strategy on locally appropriate market-based strategies to promote the sustainability of eel fisheries in Cilacap and Sukabumi.

Outcome 3.1: Capacity to assess and monitor inland aquatic biodiversity improved at national level and at local levels in Kalimantan, Java and Sumatra

29. **Finding 19** The mid-term target of mapping the inland aquatic biodiversity of the project area in Kalimantan and Java has not been met and is a major gap. The development of integrated socio-economic and conservation indicators is also delayed and this will impact delivery of other planned results. However, the on-going development of IIFGIS, which has accelerated in 2020, is noteworthy. This has allowed IFish to map certain aspects of inland aquatic ecosystems in the project districts, although an explicit agreed definition is needed of the term 'critical inland aquatic ecosystem' that aligns with being a GEF biodiversity project and the Project Document's focus on 'high conservation value ecosystems'. An important question to resolve is that of access to IIFGIS data once the project ends. Greater attention also needs to be given to meeting local priorities and capacity needs in relation to assessing and monitoring inland aquatic biodiversity and increasing the sustainability of inland fisheries through greater community participation in mapping and monitoring local inland aquatic resources and biodiversity.

Outcome 4.1: Project implementation based on adaptive results-based management and sharing of best practices

30. **Finding 20** The project has lacked a proper M&E system and mechanisms to promote adaptive results-based management, including internal learning within the PMU and knowledge management and sharing. However, the new NPM is fully aware of the need for an effective M&E system, including lessons learning, knowledge management and effective communication. Efforts have been underway to develop a Monitoring, Evaluation and Learning system since the last quarter of 2020. The PMU has relatively limited experience of GEF M&E processes or of adaptive results-based management. Planned and budgeted inputs for Year 2 from an international M&E expert have not been used.

Likelihood of realizing project objectives and Global Environmental Benefits

31. **Finding 21** The project's environment and development objectives are unlikely to be ultimately achieved without some major course corrections and improvements. The expected global environmental benefits described in the Project Document are also unlikely to be realised.

RQ3 Efficiency

32. **Finding 22** Efficiency of project execution has been mixed with major delays in the delivery of outputs and overall slow progress towards outcomes. With slightly over 20% of GEF resources spent, total project expenditure has been modest, but cost-effectiveness is likely to have been impacted by a range of factors, including: frequent turnover within the PMU and long periods of vacancy in key roles as well as several changes of the National Project Coordinator (NPC), resulting in loss of continuity and institutional memory and delays in execution; lack of adequate quality assurance of project planning, implementation and monitoring, including of Service Providers and Service Contractors, whose deliverables have varied in quality and completeness; insufficient use of mechanisms for technical backstopping by FAO; and failure to hire and deploy key expert inputs in the first two years of implementation, notably the gender, livelihoods and M&E experts leading to gaps in the critical information required to plan demonstration activities, develop an effective M&E system and implement adaptive results-based management. Delayed and disjointed implementation of key activities has further disrupted the proper sequencing of related outputs. Restrictions on travel to field sites from March 2020 due to the Covid-19 pandemic has further delayed many aspects of project implementation, particularly under Component 2.

RQ4 Factors affecting performance

33. **Finding 23** The project design as described in the Project Document and Results Framework is overly complex and confusing, with 8 outcomes and 21 outputs and the PMU, FAOID and MMAF have all struggled to understand its logic. Many of the Results Framework indicators and targets are not sufficiently SMART[3] and include several impractical and unrealistic targets such as improved food security for 1,000,000 people by the end of the project. The Project Document and the Results Framework are also only available in English. These factors have made it difficult for the PMU, MMAF and other local project partners, particularly those not familiar with GEF projects, to fully understand the original project design and to adapt it while staying well-aligned with planned objectives and outcomes. This has also made it difficult for the PMU to communicate the project effectively to key stakeholders.

34. **Finding 24** Project execution and management by FAO and the PMU have been affected by a range of challenges, including high turnover in key positions not only in the PMU but also within FAO and MMAF. International and national technical capacity to support project delivery that was planned and budgeted in the Project Document has either not been used effectively or not deployed at all, including the gender, livelihoods and M&E experts. The project inception phase was not used effectively to clarify the project design, update Results Framework indicators and targets and establish baselines. The establishment of a robust M&E system was not prioritized and project implementation and results monitoring have

[3] Specific, Measurable, Achievable, Relevant and Time-bound

been weak as a result. There has generally been insufficient quality assurance in progress and other technical reporting and in ensuring high quality products from Service Providers and Service Contractors. Additionally, the MTR found that salaries of several PMU staff were not paid for up to two months during the current pandemic, creating hardship and impacting staff morale. This has been attributed to FAO's limits and rules on cash advances and having to organize certain types of project activities remotely that required upfront cash payments.

35. **Finding 25** Project performance and results delivery have also been impacted by challenges to smooth coordination and communication between FAO, the Executing Agency, and MMAF, the lead government counterpart and Project Executing Partner, mainly at the institutional level. In order to address some of these challenges, MMAF put forward a proposal for a project Standard Operating Procedure (SOP) in 2019 to help it meet its internal requirements. However, FAO was unable to sign this SOP as it conflicted with its own legal rules as an international organization. There was also concern about creating a heavy administrative and reporting burden on the project that could cause further implementation delays. The issue of the SOP remained unresolved at the time of the MTR.

36. **Finding 26** The FAO-Project Task Force (PTF) has not been deployed effectively to date to support adaptive management and results delivery. More systematic oversight and technical guidance by the PTF could have helped pre-empt or overcome implementation challenges, and also contributed to creating a shared understanding of the project design and GEF requirements of a biodiversity mainstreaming projects. In terms of broader project oversight and governance, the Project Steering Committee has only met three times since the project began. It last met in February 2019.

37. **Finding 27** Despite a dedicated component on M&E, the project still lacks a robust M&E system to guide adaptive results-based management. This has adversely impacted progress monitoring and results delivery and needs to be urgently redressed, with appropriate technical inputs from M&E experts , and ideally with experience of GEF biodiversity projects, as originally planned and budgeted in the Project Document (see Finding 20).

38. **Finding 28** No major issues relating to the project's financial management or any irregularities were identified by the MTR. Expenditure under some outputs (e.g. Output 4.1.1) or outcomes (e.g. Outcome 1.4) is not well aligned with results delivery and there may be insufficient budget for pending outputs unless the project plan and budget are adjusted. Some of the co-financing pledges at project preparation have not yet been delivered. Additionally, the project has no linkages with James Cook University, one of the named co-financiers.

39. **Finding 29** IFish does not have a partnership or stakeholder engagement strategy and the quality and breadth of the project's partnerships and stakeholder engagement have fluctuated over time. Strongest engagement overall has been with the fisheries sector, particularly at the district level, and with selected researchers, research institutions and

universities. There has been little strategic engagement or collaboration with other key sectors and agencies, such as MoEF, MoA, MoPWH, MoE, BAPPENAS and BRG, either nationally or sub-nationally. There has also been relatively little engagement with relevant civil society actors and groups or with other donor-funded programmes.

40. **Finding 30** As noted earlier, key communication deliverables under Output 4.1.3 have not been achieved by mid-term. Some communication and awareness raising has taken place through online articles and social media although the reach and impact of these could not be established by the MTR. The PMU has lacked capacity to undertake these activities in a strategic and systematic way as the Communications role within the PMU was vacant for long periods, most recently from 2019 until September 2020.

RQ5 Cross-cutting issues

41. **Finding 31** Very little attention has been given to issues relating to gender, indigenous peoples, youth, vulnerable and other marginalized groups in the design and implementation of project activities. The Project Document included provision for inputs from gender and livelihood experts that were to have been delivered over the first two years of implementation, including a gender action plan, but these have not materialized. Although two gender experts were hired, each was on board for only 3 months. No socio-economic or gender assessments were undertaken to guide project planning and implementation in the demonstration sites and there has been no comprehensive analysis of these or other relevant factors such as resource tenure and governance in relation to the target inland fisheries and fishery systems. There are also no objective beneficiary selection protocols. FAO's Environmental and Social Safeguards screening checklist which is included in the Project Document has not been updated since the time of project approval in 2016.

RQ6 Sustainability

42. **Finding 32** There are moderate to potentially significant or severe risks to the sustainability of project results once GEF financing has ended, some of which may be outside the control of the project such as climate change. Environmental risks to sustainability such as pollution, sedimentation and changes in hydrology, as well as unregulated or illegal exploitation of inland aquatic resources are also likely to remain serious threats for the foreseeable future. The impacts of Covid-19 and an overriding focus on economic recovery may also have implications for the sustainability of results. Efforts are being made by the project to address certain types of risk, such as institutional and governance risks, and to some extent financial risks, particularly in relation to more tangible outputs, such as IIFGIS. The project's role in catalysing change from the 'business as usual' scenario is still to be realised.

43. **Finding 33** The Social and Environmental Safeguards Framework, PPRs and PIRs are not being used effectively to monitor and manage risks to the sustainability of project results. Risk assessment and ratings need to better reflect the realities on the ground, such as environmental risks or those related to achieving multisector cooperation and policy change,

so that appropriate steps can be taken to manage and mitigate these and to adapt the project as needed to enhance the sustainability of project results.

Summary paragraphs for GEF online portal

Progress, challenges and outcomes of stakeholder engagement

44. IFish does not have a partnership strategy or stakeholder engagement plan and the quality and breadth of the project's partnerships and stakeholder engagement have fluctuated over time. The project's main partners to date have been MMAF and District Fisheries Offices counterparts and to a lesser extent other district government offices. The project also engages with national universities and research institutions. There has been little strategic engagement with other key sectors, such as MoEF, MoA, MoPWH and MoE. There has also been limited engagement with private sector and relevant civil society actors and groups, including community groups and women's organizations, although these were also highlighted in the Project Document. Although some stakeholders identified at CEO endorsement and included in the Project Document may no longer be relevant, this needs to be verified and updated by building on the MTR stakeholder analysis and findings. (**Findings 25, 28 & 29**)

Progress on gender-responsive measures, indicators and intermediate results

45. Gender considerations have received very little attention in the design and implementation of project activities to date. Gender-related indicators in the Results Framework are limited to ensuring a certain proportion of women are including in trainings, which by itself is of limited value to addressing inequalities. No socio-economic or gender assessments have been completed and the project does not have a gender action plan or adequate gender indicators, although the Project Document included ToRs and allocated budget for hiring gender and livelihood experts to deliver these over the first two years of implementation. The project also does not have transparent and objective beneficiary selection protocols. FAO's Environmental and Social Safeguards screening checklist completed at the time of project approval in 2016 is out of date and needs to be revised. (**Findings 19, 31 & 33)**

Knowledge activities/products and lessons learned

46. The project has a dedicated output (4.1.3) to document and share lessons through a project dissemination plan. But due to the many implementation delays, the project is yet to generate any significant lessons or good practice. The project plans to develop a knowledge management system. This needs to careful planning to ensure that it is aligned and integrated with the project monitoring and evaluation system, which in turn should be informed by the finalized project Theory of Change and updated Results Framework.

Conclusions

RQ 1 Relevance and Ownership

47. **Conclusion 1:** The IFish project remains highly relevant due to the global, national and local significance of Indonesia's inland aquatic ecosystems, which includes their biodiversity value and the economic and cultural importance of associated inland fisheries. These like most global freshwater systems and wetlands are amongst the most threatened ecosystems in the world. However, in order to realise planned environmental, economic and social benefits, the IFish project will need a no-cost extension (NCE) of at least 2-3 years.

48. **Conclusion 2:** The project can build on a high degree of ownership by MMAF and district government Fisheries Offices in project demonstration areas, but ownership by other relevant sectors and local communities needs to be significantly strengthened.

RQ2 Effectiveness

49. **Conclusion 3:** While progress towards outputs and outcomes has been greatly delayed overall, most planned outcomes could still be achieved - with major course corrections and some improvements in project design, management and implementation arrangements and a performance-based no-cost extension of 2-3 years.

50. **Conclusion 4:** There is need to further strengthen project partners' understanding of the GEF biodiversity mainstreaming approach to sustainable fisheries and to find ways to better integrate biodiversity considerations into project planning, implementation and monitoring as the latter do not always a) give sufficient consideration or priority to the project's biodiversity objectives; b) reflect a clear understanding of the GEF approach to mainstreaming biodiversity into a productive sectors, in this case fisheries; c) draw sufficiently upon FAO's vast technical experience and other international and national best practice; and d) make use of the additional international and national expertise budgeted in the Project Document

51. **Conclusion 5:** Major flaws in the original project design and other gaps and obstacles are having a significant impact on the delivery of project results. These include: a) misconceptions about the extent of policy change that the project could realistically bring about within a relatively short timeframe; and b) a lack of understanding – or realism - about the scope and application of district spatial plans (RTRW) and Fishery Management Plans (RPP). Even if these could be successfully revised or developed within the project timeframe, neither the district spatial plans nor the FMPs can be easily translated into site-based 'land management plans' that can be implemented by local communities, government and other local stakeholders. Additionally, differences in approach to EAFM/EAA between FAO and MMAF have stalled progress on project plans for developing and implementing EAFM/EAA training and using site-based EAFM/EAA approaches to inland capture fisheries in the demonstration sites. Finally, it is worrying that a GEF biodiversity project has lacked clarity

over the taxonomy and conservation status of one of its three target fisheries (clown knife fish) since the design phase up to mid-term.

52. **Conclusion 6:** The design and implementation of demonstration activities under Outcome 2.1 needs careful reassessment to ensure these are in line with planned project outcomes and objectives, technically sound and socially, economically and environmentally viable with potential for replication and long-term sustainability. Where changes are needed due to design flaws or altered implementation circumstances, these must remain aligned with the original project objectives and expected outcomes as well as GEF priorities for biodiversity mainstreaming projects. A particularly critical gap is the lack of any demonstrations on site-based integrated wetlands management with local community engagement - a key element of the original project plan.

RQ3 Efficiency

53. **Conclusion 7:** Efficiency of project execution has been mixed and cost-effectiveness is also likely to have been negatively impacted due to a range of factors that have affected performance, delayed and disrupted implementation and delivery and also impacted the quality of project results.

RQ4 Factors affecting performance

54. **Conclusion 8**: An overly complex and confusing project design with too many planned outcomes and outputs has acted as a barrier to a shared understanding of expected project results and to smooth and coherent project implementation. Additionally, lengthy documents in English and unexplained use of donor terms (i.e. jargon) are a further barrier to full understanding of the project design and GEF requirements by non-native English speakers. An unclear Results Framework with many non-SMART indicators and targets and missing indicator baselines has contributed to the lack of effective project M&E, adaptive management and unclear project progress reporting in PIRs and PPRs.

55. **Conclusion 9:** The lack of a robust project M&E system and inability therefore to easily track progress towards outcomes and enable adaptive results-based management is affecting the delivery and quality of project outputs and the realisation of project outcomes, particularly under Components 1 and 2. This also limits the project's ability to systematically capture good practice and lessons and to monitor risks to project implementation and to the sustainability of project results.

56. **Conclusion 10:** Improvements in project execution and management are essential if a no-cost project extension is to lead to improved project performance and successful delivery of project outcomes. Results delivery might have been greater at mid-term had there been more systematic oversight, guidance and technical backstopping from the FAO-Project Task Force and greater overall quality assurance by both FAO and the PMU, particularly with regard to implementation and risk monitoring, the deliverables produced by Service Providers and Service Contractors and the delivery and use of co-financing pledges made at

CEO endorsement. Strengthened communication and coordination between FAO and MMAF and streamlined administrative and technical approval processes by the respective partners to the extent possible are also essential to increase project efficiency and effectiveness.

57. **Conclusion 11:** Addressing the multitude of threats to inland fisheries and aquatic ecosystems requires the long-term cooperation and action of a wide range of actors at different levels across different sectors, including government, private sector and civil society. In the meantime, the project should ensure that it does not contribute to existing threats through its own interventions by implementing appropriate environmental safeguards. Effective communication and far greater and more strategic stakeholder engagement is needed by IFish to achieve the project's planned outcomes and biodiversity mainstreaming objectives.

RQ5 Cross-cutting issues

58. **Conclusion 12:** Despite GEF and FAO policies and a strong emphasis on gender and other socio-economic considerations in the Project Document, there has been surprisingly little attention given to date to considerations on gender and marginalized and vulnerable groups in the design and implementation of project activities, including on implementing social and environmental safeguards in relation to project interventions in the demonstration sites.

RQ6 Sustainability

59. **Conclusion 13:** While there are many risks to the sustainability of project results, this is the reality of a GEF project seeking to mainstream biodiversity into a complex sector with exceptionally difficult barriers to overcome. This is a shared challenge for freshwater ecosystems across the world and all the more reason for continued investment and sustained effort to address this challenge.

Recommendations

I Re-orienting the project for success

60. The main recommendations arising from the MTR are presented below. The MTR was asked to provide clear, 'actionable' recommendations. Therefore, priority actions have also been identified for some of the individual recommendations. However, other than for Recommendation 1, which is the most critical and immediate recommendation, priority actions are only provided in Section 6 of the main report .

61. **Recommendation 1 Undertake a joint planning exercise led by FAO and MMAF in the next 3-4 months to simplify and adapt the IFish project design and results framework to achieve planned project outcomes within the next 2-3 years and set the project back on track to deliver its environment and development objectives, building a shared understanding of the project.** Budget and timeline permitting, this would be facilitated by an external expert, with practical experience of developing and implementing large complex projects and of applying results-based adaptive management, and preferably also with experience of GEF biodiversity mainstreaming projects to ensure revisions are aligned with GEF requirements. Amongst other things, the planning exercise should cover the following priority actions:

R1.1 Finalize the project Theory of Change, including 'mini' theories of change for target fisheries targeted in each demonstration district, clarifying the project logic, particularly between Components 1 and 2 and defining key terms such as 'critical inland aquatic ecosystems'.

R1.2 Undertake preliminary socio-economic, livelihoods, gender and ecological assessments of the target fisheries and demonstration areas to inform the project re-design, including the overall Theory of Change and the mini ToCs for each target fishery.

R1.3 Clarify the species of *Chitala* found in the Kampar project demonstration sites, its conservation status (i.e. IUCN Red List Category) and if possible its population status.

R1.4 Identify what will replace the original project output of developing Fishery Management Plans for *Chitala* and arowana if these are no longer being developed.

R1.5 Prioritize the development of demonstrations on integrated wetlands management in high-conservation value inland aquatic ecosystems. This should include the development of the participatory, multistakeholder land use plans and EAFM/EAA plans and other strategies to increase both local community engagement and benefits, as well as to improve management of wild capture fisheries, the wider habitat and related biodiversity.

R1.6 Revise the Results Framework after clarifying the project logic and completing the project Theory of Change, to create a useful planning and monitoring tool, with a robust set of SMART indicators with targets with baselines, including biodiversity impact indicators, that can support adaptive results-based management and the delivery of project objectives.

R1.7 Develop a 2-3 year project implementation plan that sets out exactly where and how the project will work, including the species targeted, the proposed interventions, and the strategies for engaging local communities and selecting beneficiaries. The plan should

include a clear rationale for every major intervention linked to the revised Theory of Change that shows how each major proposed intervention will result in the delivery of planned outputs and contribute to delivering the planned outcome, including any delayed mid-term targets, end of project targets and ultimately the project objectives.

R1.8 Ensure key documents arising from the joint planning exercise (i.e. Theories of Change, revised Results Framework, revised implementation plan, etc.) are made available in Bahasa to national and subnational stakeholders.

R1.9 Extend the project by 2-3 years on a no-cost basis once an updated project implementation plan has been completed and agreed by the project partners (FAO and MMAF) and approved by the PSC.

62. **Recommendation 2 Use the post-MTR joint project planning exercise to agree on mechanisms to strengthen coordination and communication between FAO and MMAF, including channels for resolving differences between the partners.** This could include having more regular meetings of the alternate FAOID Budget holder, the NPM and the NPC to discuss the project in between the annual or six-monthly Project Steering Committee meetings, with other relevant MMAF technical counterparts, PMU staff, the FAO LTO and FLO involved as needed. It is also necessary for FAO and MMAF to reach a decision on the Standard Operating Procedure (SOP) proposed by MMAF that allows MMAF to meet its annual budget reporting and audit requirements without conflicting with FAO's own rules or creating undue additional administrative burdens on the project that could cause further implementation delays.

II Strengthen project execution, management and oversight

63. **Recommendation 3 Implement at least one or two integrated wetlands management demonstration, including one in a high-conservation value inland aquatic ecosystems, such as in South Barito, to pilot strategies for multi-stakeholder engagement and bottom-up planning.** This should include developing a site-based co-management plan with local communities and government partners and other stakeholders to better manage a target inland fisheries and the surrounding habitat to increase the sustainability of the fisheries, livelihood benefits and the protection of the wider inland aquatic ecosystem and its biodiversity.

64. **Recommendation 4 Develop and implement a robust but also practical M&E system with inputs from an experienced M&E expert (as planned and budgeted in the Project Document) to strengthen adaptive results-based project management and progress reporting.** The M&E system should enable tracking of both implementation progress as well as progress towards outcomes and objectives using the revised Results Framework indicators and targets. It should also be integrated with the project learning and knowledge management systems and contribute to improved progress reporting in the PIRs and PPRs.

65. **Recommendation 5 Strengthen project delivery through improvements in quality assurance, day-to-day technical and administrative approval processes and project oversight by FAO, including the Project Task Force, and the Project Steering Committee.**

66. **Recommendation 6 Ensure that relevant experts to support the PMU are hired and delayed actions and critical inputs to guide project planning and adaptive management included in the Project Document and the MTR are completed as a matter of priority.** This includes hiring an experienced gender and livelihoods expert for the PMU for a full two years and completing the socio-economic, gender and livelihoods assessments of the target fisheries in the five project demonstration sites. It also includes recruiting a short-term international M&E expert to support the development and implementation of the project M&E plan, in particular to develop SMART indicators and targets with baselines, including some biodiversity impact indicators linked to the target fisheries and related high-conservation value inland aquatic ecosystems.

67. **Recommendation 7 Hire a part-time Senior Technical Advisor to support the PMU with experience of capture fisheries management, EAFM and EAA, local community engagement and GEF biodiversity projects planning and management, including M&E and adaptive results-based management.** If the full set of skills and experience cannot be sourced through one individual, then ensure the project receives additional support from a consultant with extensive experience of both species conservation and integrated ecosystem/landscape-level conservation, ideally with knowledge of Indonesia's inland aquatic ecosystems and biodiversity, including critical wetland habitats such as peatlands. While such a role was not included in the original Project Document, this is still possible if a number of the short-term international consultancy positions that have been budgeted in the Project Document are revised and merged to support this new role. This should take into consideration the results of the project re-design (Recommendation 1) and the technical capacity needs of the PMU to strengthen project performance and results delivery.

68. **Recommendation 8 Strengthen the capacity of the PMU to execute and manage a GEF biodiversity mainstreaming project through additional training, structured support from FAO including regular feedback and discussion as part of its strengthened execution, oversight and quality assurance.**

III Strengthen impact and the sustainability of project results

69. **Recommendation 9 Develop a partnership strategy and stakeholder engagement plan to strengthen cooperation and collaboration between all major stakeholder groups relevant to the sustainable management of inland fisheries, wetlands and other inland aquatic ecosystems, and to also underpin the national and district-level multisector/multi-agency coordination mechanisms.** The strategy and plan should cover national and subnational government stakeholders, researchers, universities, technical agencies and research institutions, NGOs, local communities and other civil society members. These would also

include expanding ownership of the project beyond the fisheries sector by strengthening engagement with other key national ministries, particularly MoEF/KLHK, MoA, MoPWH, MoE and BAPPENAS, and their local government counterpart agencies (Fisheries Office, BAPPEDA, etc). Synergies and complementarities between IFish and Indonesia's programmes on climate change should also be explored. It should also involve much closer engagement with organizations with considerable experience on wetlands management and community-based natural resource management, including Wetlands International, CIFOR, and numerous local NGOs working with local communities, notably in Kalimantan. Co-financing contributions by existing and potential new partners should also be reviewed and recalculated as part of the PIR/annual reporting process.

70. **Recommendation 10 Develop a project communication strategy and plan linked to the project knowledge management system, partnership strategy, stakeholder engagement plan** to ensure that project lessons, policy recommendations and best practice are communicated effectively to different types of key stakeholders (from national to local decision-makers and resource users) to amongst other things convincingly demonstrate the social, economic and environmental value of protecting and sustainably managing inland fisheries and high conservation value aquatic ecosystems and to strengthen stakeholder engagement and support for the project. Communication should be adapted for different audiences with key information shared through appropriate channels in an easily understood format, using the most suitable language for the targeted audience.

71. **Recommendation 11 Develop a project exit strategy** based on a systematic assessment of socio-political, financial, institutional, governance and environmental risks to the sustainability of project results and implement appropriate measures to manage or mitigate these to the extent possible, including adapting the project design to increase the likelihood of expanding the impact and sustainability of project results.

GEF Rating Table

Note: See below the table for explanations of the GEF rating scales.

GEF criteria/sub-criteria	Rating[1]	Summary comments
A. STRATEGIC RELEVANCE & OWNERSHIP		
A1. Overall strategic relevance	S	The IFish project has a high degree of global, national and local strategic relevance
A1.1 Alignment with GEF and FAO strategic priorities	HS	The project's objectives and overall approach of mainstreaming biodiversity and strengthening systemic capacity for inland fisheries management to protect high-conservation value inland aquatic ecosystems and support local livelihoods and food security is very well aligned with GEF and FAO strategic priorities.
A1.2a Relevance to national, regional and global priorities	HS	The relevance of the project is unquestionable. Freshwater ecosystems and their biodiversity are highly threatened globally, regionally and nationally with many species declining and at risk of extinction.
A1.2b Relevance to target district priorities	UA	The project is highly relevant to target district Fisheries Offices. However, the MTR was unable to assess the extent of the project's relevance to other sectors and to local government priorities as a whole.
A1.2c Relevance to beneficiary needs	UA	Although extremely important, the MTR was unable to assess the project's relevance to beneficiary needs. In theory, the project should have high relevance to beneficiary needs, if planned project outcomes and end of project targets are met in relation to local livelihoods, food security and the improved provision of ecosystems goods and services from inland aquatic ecosystems.
A1.3. Complementarity with existing interventions	MS	There are few known or explicit complementarities between IFish and other interventions apart from with WWF's on-going work on eel in Sukabumi.
A2. Overall ownership	MS	There is strong national and local ownership by MMAF and counterpart district Fisheries Offices, but ownership of the project outside the fisheries sector is more limited, particularly at the national level. Local community and beneficiary ownership was not assessed but is unlikely to be widespread, given limited community participation and a relatively small number of project beneficiaries.
B. EFFECTIVENESS		
B1. Overall assessment of project results	MU	Some promising policy-related results and progress on improving the management of eel fisheries, one of the three project target fisheries. But results delivery has been severely impacted by numerous disruptions and delays to project implementation since its approval. Implementation has been impacted by the Covid-19 pandemic since March 2020, particularly in the demonstration sites. Without a no-cost extension and major course corrections and improvements, planned outcomes and objectives are unlikely to be achieved.
B1.1 Delivery of project outputs	MU	Mixed delivery of the project's 21 planned outputs and related MTR targets, with many outputs delayed and some key ones unlikely to be realised.
B1.2 Overall progress towards outcomes and objectives	U	Overall progress towards outcomes is extremely delayed with very few mid-term targets achieved after 3.5 years of implementation. Outcomes and objectives

GEF criteria/sub-criteria	Rating[1]	Summary comments
		are still achievable, with course corrections and improvements and a 2-3 year no-cost extension.
Outcome 1.1	U	The mid-term target has not been met in terms of the area of 'critical inland aquatic ecosystems' under sustainable management plans. There are some promising policy achievements relating to eel and the future establishment of inland fishery management areas. However, rating is U based on RF indicator and mid-term. Also see Annex 7.
Outcome 1.2	U	Very little progress on strengthening national and local capacity to address threat to inland aquatic ecosystems including inland fisheries.
Outcome 1.3	U	Limited national cross-sector communication and collaboration on the management of inland aquatic ecosystems. No formal multi-ministry coordination mechanism in place since 2018. Greater collaboration and coordination at district level and discussions on a formal coordination mechanism initiated end 2020.
Outcome 1.4	U	Taxonomy and status of one of the three target fisheries is unclear. Fishery Management Plans may not be possible for two of the three target species. Alternative strategies to address threats to these capture fisheries still to be identified. Unlikely to achieve end of project targets of a 10% increase in wild stocks of the three target species in the demonstration areas.
Outcome 2.1	MU	Mid-term target of having 5 operational project demonstration sites partly met. But without major course corrections and improvements, end of project target of >12,000 households pursuing improved livelihoods through better fisheries production and conservation of 60,000 ha of wetland habitat unlikely to be met. A major gap is the lack of progress in developing participatory land use plans, EAFM/EAA plans and demonstrations on integrated wetlands management.
Outcome 2.2	MS	Mid-term target not met, but some good preliminary work on the eel supply and value chains and certification options. End of project targets are achievable with some adjustments and a clearer strategy on viable context-specific market-based strategies for eel fisheries in Cilacap and Sukabumi.
Outcome 3.1	MS	Development of IIFGIS accelerated in 2020 and certain aspects of inland aquatic ecosystems in the project districts can be mapped. But mid-term target not met and integrated conservation and livelihood indicators have not been developed.
Outcome 4.1	U	The project does not have an effective M&E systems and there is no adaptive results-based management.
B1.3 Likelihood of impact	Not rated at MTR	The project is not on track to deliver major impact in terms of addressing threats to inland aquatic ecosystems and capture fisheries or livelihoods and food security. Planned global environmental benefits will not be realised without major course corrections and improvements.
C. EFFICIENCY		
C1. Efficiency	MU	Efficiency has been affected by numerous implementation delays, high turnover in the PMU, long periods of key roles being vacant or never filled, weak

GEF criteria/sub-criteria	Rating[1]	Summary comments
		technical quality assurance and lack of proper sequencing of related activities and outputs.
D. SUSTAINABILITY OF PROJECT OUTCOMES[2]		
D1. Overall likelihood of risks to sustainability	MU	There are some significant risks to overall sustainability of project outcomes which was unsurprising. The effective management of inland waters is exceptionally difficult given the many sectors and actors involved and also why projects such as IFish are so important. The extent of risks was difficult to assess remotely, particularly in the absence of socio-economic, ecological and governance-related baselines for demonstration areas and project risk monitoring information.
D1.1. Financial risks	UA	Unable to assess, but further investment by national and local government is needed to sustain and expand project results and impacts. Budgetary allocations for inland waters are relatively small and both national and district budgets have become more constrained as a result of the impacts of the global Covid-19 pandemic.
D1.2. Sociopolitical risks	UA	Unable to assess, but these are likely to have increased as a result of the economic impacts of the pandemic.
D1.3. Institutional and governance risks	UA	Unable to assess, but changes in national and local government are a perpetual source of risk to the sustainability of project results as these will require continued investment and multisector coordination to have major impact through scaling and replication.
D1.4 Environmental risks	U	Unable to quantify, but considerable qualitative information to suggest there are severe environmental risks to sustainability of project results through overexploitation, habitat loss and degradation (pollution, sedimentation, invasive species, etc), obstacles to eel migration, physical changes to rivers/water courses and hydrology and climate change.
D2. Catalysis and replication	UA	Too early to assess whether the project will create sufficient incentives and mechanisms to support upscaling in existing demonstration sites, replication in other districts and/or other catalytic actions.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and readiness	U	A complex and over-ambitious project design with many inconsistencies and weaknesses in causal logic and design elements, confusing wording of some project outcomes and outputs and a large number of non-SMART indicators.
E2. Quality of project implementation oversight	MU	Considerable oversight in terms of ensuring project annual workplans and six-monthly progress reports (PPRs) and annual PIRs completed. But insufficient quality assurance and limited adaptive results-based management by FAO.
E2.1 Implementation oversight and supervision by FAO (BH, LTO, PTF, etc.)	MU	FAO-Project Task Force (PTF) has not been deployed effectively to address implementation challenge and strengthen results delivery. LTO not always involved sufficiently early to be able to provide meaningful inputs to technical design and provide quality assurance.

GEF criteria/sub-criteria	Rating[1]	Summary comments
E2.2 Implementation/strategic oversight (PSC/TWG)	MU	The PSC has only met three times since the project began and has not met since February 2019. The national TWG has also not met since 2018 when the original MMAF decree for its establishment expired as it has not been re-established.
E3. Quality of project execution and management (FAO/PMU)	MU	The overall quality of project execution and management has varied considerably and needs to strengthened and sustained. Some key management processes and mechanisms are not being effectively applied, particularly in relation to M&E, risk monitoring, adaptive management and technical quality assurance.
E3.1 Project execution and management (FAO)	MU	Considerable effort has gone into overcoming a range of implementation challenges. Lack of experience of GEF projects within FAOID, including making effective use of the PTF, has affected smooth execution and management. Key elements of the project not implemented and planned national and international consultants not hired. Coordination and communication between FAO and MMAF need strengthening.
E3.2 Project implementation and management (PMU)	MU	Project implementation severely impacted by very high turnover in the PMU in 2018-19 and long periods of understaffing. A committed team in place led by a new NPM since January 2020. However team still needs additional support (staff + short-term consultancy inputs) and capacity development to strengthen project implementation, management and results delivery. Quality of progress reporting needs to be greatly strengthened.
E4. Financial management and co-financing	S	No major issues with financial management identified. However, it should be noted that 50% of the budget for Component 4 has been spent to cover the costs of PSC meetings and joint monitoring trips by FAO and MMAF. Some co-financing pledges at project preparation have not been delivered yet including FAO's cofinancing. Project has no links to one of the named smaller co-financiers, James Cook University.
E5. Project partnerships and stakeholder engagement	MS	Strongest engagement has been with the fisheries sector, particularly at the district level, and researchers. Limited strategic engagement or collaboration with other key sectors and with civil society. No partnership strategy or stakeholder engagement plan.
E6. Communication & knowledge management	MS	Some past communication and awareness raising but impact unclear. No communication strategyor plan. Communications role within the PMU vacant for long periods. No knowledge management mechanisms in place.
E7. Overall quality of M&E	U	Project lacks a robust M&E system and mechanisms to promote adaptive results-based management. Efforts are underway since last quarter of 2020 to address this. Some budget reallocation may be required for this.
E7.1 M&E design	MU	Project Document includes a basic M&E plan but Results Framework has many weaknesses including numerous non-SMART indicators and targets and missing baselines.
E7.2 M&E plan implementation (including financial and	U	A very general M&E plan was included in the Project Document. This was to have been further developed

GEF criteria/sub-criteria	Rating[1]	Summary comments
human resources)		to during the project inception to include participatory monitoring of the social, economic and environmental aspects of the project but has not happened yet. Progress reporting in PIRs and PPRs is inconsistent and frequently unclear. Insufficient attention given to risk assessment. Changes to project design are also not clearly reported and explained.
E8. Overall assessment of factors affecting performance	MU	Many factors have affected project performance since the start and this has severely impacted the delivery of project outputs and progress towards outcomes.
F. CROSS-CUTTING CONCERNS		
F1. Gender and other equity dimensions	U	Limited attention given to gender and other equity issues. Planned gender, socio-economic and livelihoods assessments and gender action plan not yet completed.
F2. Human rights issues	U	No consideration given to this aspect including whether FPIC processes are needed in demonstration areas. No objective beneficiary selection protocols in place.
F2. Environmental and social safeguards	U	The FAO Environmental and Social Safeguards screening undertaken in 2016 at the time of final project approval has not been updated.
Overall project rating	**MU**	

1. Explanation of GEF rating scales for A, B, C, E & F (see Annex 10 for further detail):

Highly satisfactory (HS)	Clearly exceeds expectations and/or with no shortcomings
Satisfactory (S)	As expected and/or with no or minor shortcomings
Moderately satisfactory (MS)	More or less as expected and/or with moderate shortcomings
Moderately unsatisfactory (MU)	Somewhat lower than expected and/or with significant shortcomings
Unsatisfactory (U)	Substantially lower than expected and/or with major shortcomings
Highly unsatisfactory (HU)	Negligible and/or with severe shortcomings
Unable to assess (UA)	The available information does not allow an assessment of the level of outcome achievements

2. Explanation of GEF rating scale for D (Sustainability of project outcomes):

Likely (L)	There is little or no risk to sustainability
Moderately likely (ML)	There are moderate risks to sustainability
Moderately unlikely (MU)	There are significant risks to sustainability
Unlikely (U)	There are severe risks to sustainability
Unable to assess (UA)	Unable to assess the expected incidence and magnitude of risks to sustainability

1. Introduction

72. This report presents the findings and recommendations of the independent Mid-Term Review (MTR) of the *'Mainstreaming Biodiversity Conservation and Sustainable Use into Inland Fisheries Practices in Freshwater Ecosystems of High Conservation Value'* project (GCP/INS/303/GFF and GEF ID 5759), otherwise known as 'IFish' or the 'IFish project'.

1.1 Purpose and scope of the MTR

73. An MTR is a requirement and a key monitoring milestone for full-sized GEF–funded projects. It is also required by FAO for project monitoring and reporting purposes and forms an integral part of the IFish Monitoring and Evaluation (M&E) plan in the Project Document. The purpose of the MTR as stated in the MTR Terms of Reference (ToR, Annex 1), is principally to provide an independent, external assessment of project progress towards expected project outputs, outcomes and objectives, and to identify areas for improvement and/or corrective action along with recommendations for improving the delivery and sustainability of the project's intended results. The MTR thus presents an invaluable opportunity for reflection, analysis and learning by all project partners and other key stakeholders, and for guiding and prioritizing post-MTR implementation.

74. The MTR covers the period from June 2017, when project implementation officially began, to December 2020 as well as the original project design, which was completed and approved by the GEF in 2016. Project activities at national level and in project demonstration districts were reviewed. The project's target population and intended beneficiaries are the local fishers, eel seed collectors and fish farmers in the project's five demonstration districts in Java, Kalimantan and Sumatra.

1.2 Objective of the MTR

75. The objective of the MTR as stated in the MTR ToR is: *"to assess the relevance of the project, its progress in achieving outcomes for beneficiaries, the cost-effectiveness and efficiency, the strategy for stakeholder engagement and partnerships and the likelihood of sustainability and potential for long-term impacts."*

76. The overarching questions that guided the MTR, derived from the project objectives, were:

- What difference is the project making to the management and sustainable use of Indonesia's inland fisheries and the conservation of associated ecosystems and biodiversity as well as to strengthening inland-fisheries based local livelihoods and food security?

- What changes are needed in the remainder of the project to improve and strengthen the delivery of project results and long-term impact and sustainability?

77. The MTR aimed to answer six major Review Questions and related sub-questions. These questions, summarized in Table 1, are aligned with the main OECD/DAC[4] criteria for evaluation as well as GEF and FAO priorities relating to factors affecting project performance and cross-cutting issues such as considerations relating to gender, indigenous peoples, and other marginalized or vulnerable groups (see Annex 1/Section 3 and Annex 3 for further details).

Table 1 Main Review Questions covered by the IFish MTR

RQ #	MTR Focus Area	Main Question
RQ1	RELEVANCE & OWNERSHIP	To what extent are the project's objectives and planned outcomes consistent with country priorities, the GEF Biodiversity Focal Area Objectives, the FAO Country Programming Framework and Strategic Objectives, and the needs and priorities of targeted beneficiaries?
RQ2	EFFECTIVENESS	To what extent has the project delivered on each of its planned outputs and outcomes and what is the likelihood of the project objectives and Global Environmental Benefits (GEBs) being realised ultimately?
RQ3	EFFICIENCY	To what extent has the project been implemented efficiently (i.e. in a timely manner) and cost-effectively, and how far has management been able to adapt to any changing conditions to improve the efficiency of project implementation?
RQ4	FACToRS AFFECTING PERFORMANCE	What have been the major factors influencing project delivery and progress towards results?
RQ5	CROSS-CUTTING ISSUES	How have considerations regarding gender, youth, vulnerable and marginalized groups and indigenous peoples been taken into account in project design and implementation and have environmental and social safeguards been applied?
RQ6	SUSTAINABILITY	What is the likelihood of project results being sustained after the end of the project and the planned Global Environmental Benefits being realised? What are the main risks to the sustainability of project results?

1.3 Intended users

78. The primary intended users of this MTR Report are FAO, especially FAO-Indonesia (FAOID), including the IFish Project Management Unit (PMU), and the Ministry of Marine Affairs and Fisheries (MMAF/KKP), particularly the main project counterpart directorates general and agencies, as well as MMAF's International Cooperation and Public Relations Bureau. Other important users include the project district Fisheries Offices and other key local government offices. Review findings and recommendations are of particular importance to the national Project Steering Committee (PSC), as the MTR is expected to be a key input at the next PSC meeting in 2021, when a decision on a project no-cost extension (NCE) beyond June 2017

[4] Organisation for Economic Co-operation and Development/Development Assistance Committee. http://www.oecd.org/dac/evaluation/revised-evaluation-criteria-dec-2019.pdf

will be taken. MTR findings and recommendations are also be of importance to the GEF Operational Focal Point (OFP) in the Ministry of Environment and Forests (MoEF/KLHK).

79. It should be noted that throughout this report the MTR often makes a distinction between FAO and the IFish project team (i.e. the PMU), although PMU staff are also FAO staff. Unless otherwise stated, 'FAO' refers to non-PMU FAO staff. The term 'project partners' is used to refer to MMAF and all of FAO, including the PMU, unless again otherwise stated. The term 'local government' generally refers to the district government. District is also referred to as regency or Kabupaten in Bahasa.

1.4 Methodology

80. The overall approach and methodology for the MTR was developed during a preparatory MTR inception phase in October-November 2020 as documented in the MTR Inception Report. This was adapted further during the course of December 2020-January 2021 based on the findings of the desk review and other developments, as explained further below.

1.4.1 Overall approach

81. The inception phase involved the following key steps:

- developing a preliminary Theory of Change (ToC) based on the project strategy as given in the Project Document and Results Framework (RF)
- clarifying the project logic and preliminary validation of the ToC with FAO and the PMU
- an initial desk review of key project documents and GEF policies, including the Project Document, the GEF CEO endorsement document, the annual Project Implementation Reviews (PIRs), the six-monthly Project Progress Reports (PPRs), the GEF-5 Biodiversity Focal Area strategy objective on mainstreaming biodiversity into productive sectors and landscapes and seascapes and the related GEF-5 Biodiversity Mainstreaming Tracking Tool for the project[5]
- consultations with FAO and the PMU for clarifications and to obtain an initial understanding of their perceptions of progress, achievements and implementation challenges
- developing the review questions, sub-questions evaluation and criteria for assessment together with identifying data sources and types of data collection (the Evaluation Matrix)
- further analysis of the stakeholder analysis provided in the MTR ToR

[5] IFish is considered a GEF-5 project as the original project concept was approved in GEF-5 (2010-14) even though the final project document was approved in GEF-6 (2014-18) and implementation has spanned both GEF-6 and GEF-7 (2018-22). See https://www.thegef.org/about/funding The Tracking Tool (TT) is first completed at the time of GEF CEO endorsement. This should be updated at mid-term by the PMU/FAO and provided to the MTR for review.

- identifying data collection options and interview methods if travel to field sites and in-person interviews could not be undertaken
- selecting stakeholders for interview
- verifying the proposed approach and methodology with the project partners.

82. Methodology development was undertaken in the knowledge that field visits and in-person interviews would very likely not be possible, even for the national expert. Given the difficulties of remote primary data collection, including language-related barriers, it was agreed with FAO that the MTR would focus on two of the five project demonstration districts and target fisheries, one where work was most advanced, and one where work was yet to begin. These were respectively the eel fishery in Cilacap District in Central Java and the proposed revitalization of the *beje* fisheries in Central Kalimantan, in either Kapuas or South Barito Districts. It was also agreed that the MTR would consider an additional site if travel restrictions were lifted.

83. It was further agreed with FAO that if field visits and in-person interviews were not possible, the MTR would rely primarily on the desk review to answer the review questions. These findings would then be supplemented and further validated through targeted interviews with purposively selected stakeholders (see MTR Inception Report 2020). However, the more detailed desk review undertaken in December 2020 revealed numerous gaps and inconsistencies in key project documents, including progress reports and other key project reports. This made it difficult for the MTR to rely on the desk review to identify key findings for subsequent validation through stakeholder interviews as originally agreed with FAO. Instead, greater emphasis had to be given to obtaining information through the stakeholder interviews, which as a result also became more detailed and longer than originally planned.

84. Stakeholder interviews took place between late December 2020 and early March 2021, with the majority completed in January-February. A short on-line survey was conducted for PMU staff as the MTR did not have the time to interview everyone individually. An extensive desk review took place in parallel. There was regular communication with FAOID and the PMU throughout, particularly to seek clarifications and fill information gaps.

1.4.2 Stakeholder analysis and selection of the interview sample

85. The MTR undertook a detailed review of the stakeholder analysis provided in the MTR ToR (see Annex 1/Section 3) in line with internationally agreed evaluation standards[6]. This included trying to include a representative sample of stakeholders from different stakeholder groups, including decision-makers, managers, key actors, technical advisers, members of the Project Steering Committee (PSC) and the national Technical Working Group (TWG), as well as beneficiaries and other local community members. Particular consideration was given to including female stakeholders and beneficiaries from indigenous communities in the expanded sample. Finally, with the help of the PMU the MTR also established the preferred interview language of each stakeholder (i.e. English or Bahasa), the ease of scheduling and conducting remote interviews by Zoom or phone, and which stakeholders could potentially be interviewed together rather than individually. The process followed is described in detail in the MTR Inception Report along with the resulting revised stakeholder analysis.

86. The MTR's stakeholder analysis resulted in a slightly expanded list from the original number of less than 150 stakeholders to 178 stakeholders and a regrouping of stakeholders across six categories (Table 2).

Table 2 Revised Stakeholder Analysis Categories

Stakeholder Categories & Descriptions	
1. Active stakeholders with direct responsibility for project results	FAO, Executing Partners, PMU & Key Service Providers
2. Project Steering Committee & National Technical Working Group Members	Active stakeholders not already included in Category 1 with either (a) decision-making authority over the project and/or (b) key advisory functions
3. Key Local Government Partners *(District & Provincial)*	Local Fisheries Offices, BAPPEDA, KLHK, etc.
4. Grassroots-level Stakeholders who benefit directly or indirectly from the intervention *(gender disaggregated where possible)*	Local fishers, fish farmers, fish collectors and representatives of Civil Society Organizations (CSOs) engaged in fishery sector including village organizations
5. Other relevant agencies/experts, including government bodies, research institutions and NGOs	Organizations and individuals working in similar or complementary areas not already included in Categories 1 & 2. E.g. on peatlands, wetlands, and other inland aquatic ecosystems and biodiversity, inland fisheries-based community-livelihoods, etc.
6. Grassroots-Level Stakeholders who do not benefit from the intervention *(gender disaggregated where possible)*	Local communities and CSOs in project demonstration areas not directly involved with the project.

[6] These included Standard 4.6 of the United Nations Evaluation Group Norms and Standards on stakeholder engagement and reference groups (UNEG, 2016)[6] and the GEF 2017 Policy on Stakeholder Engagement and the related GEF 2018 guidelines its implementation.

87. Stakeholders were prioritized for interview into four groups: 1) Essential; 2) Desirable; 3) Complementary; and 4) Not Required or Not Feasible remotely. A slightly larger number of local stakeholders were selected purposively from i.e. Cilacap, Kapuas and South Barito[7], the focus areas for the MTR. This process resulted in 88 'Essential', 52 'Desirable and 5 'Complementary' and 29 'Not Required/Not Feasible' stakeholders. This last, Priority Group 4, was eliminated from further consideration. They included stakeholders who would have been exceptionally difficult to access remotely, as well as several local fisher and other village organizations which had yet to be engaged by the project and other interest groups known to be working in the project demonstration sites, but with whom the project had had no interaction and about whom no further information was readily available.

88. The resulting sample included 145 stakeholders from Priority Groups 1-3. As over 66% of stakeholders were primarily Bahasa speakers, and given the logistics of planning and undertaking remote interviews, the MTR team was advised by FAO to further limit the interview sample by selecting a subset of stakeholders from Priority Group 1, i.e the 'Essential for interview' stakeholders. Therefore, a second round of prioritization was undertaken based on further assessing each person's role in the project, resulting in 66 'Essential', 18 'Desirable' and 4 'Complementary' stakeholders for interview. This was partly achieved by limiting the numbers of individuals interviewed from the same department or agency unless they could be interviewed together. Additionally the number of stakeholders from national and local government departments outside the fisheries sector was also reduced (e.g. planning and development, environment, agriculture, energy and public works) to enable the MTR to focus on the project's primary implementation counterparts.

89. The final prioritized sample for consultation and interview is included in Annex 5 of the MTR Inception Report. The proportion of female stakeholders remained constant at 17% in both rounds of prioritization, while the proportion of mainly Bahasa speakers was slightly reduced from 66% to 61%. Over 53% of stakeholders in the revised sample were from government, particularly from MMAF and from District Fisheries Offices, with slightly more representation from subnational government (28%) than national government (19%), with the rest (6%) belonging to government research agencies. A significant proportion of the sample was from the PMU and FAO (18%). Local community groups and representatives made up 14% of the sample, while 9% were from NGOs and 5% from independent research and academic institutions.

90. The final number of stakeholders interviewed from different categories is presented below (Table 3) and interviewees are listed in Annex 3.

[7] At the time stakeholder analysis, the MTR had not yet decided which of the two districts it would focus on. In the end, however, both districts were covered in interviews and the desk review.

The main data collection phase

91. The main data collection methods of the MTR were an extensive desk review, targeted information gathering through consultations with the PMU, in-depth remote stakeholder interviews and a short online survey of the PMU. The option of using online and phone survey tools was considered, but not pursued as discussions with those familiar with the local context indicated that voluntary participation was likely to be low. Key information sources for different Review Questions (RQs) and sub-questions are listed in the Evaluation Matrix in Annex 4.

92. Apart from a more detailed review of key project documents, the MTR desk review focused on the documents and fisheries prioritized in agreement with FAO, i.e. Cilacap and the eel fishery and the traditional *beje* fisheries in Kapuas and South Barito. Key documents in Bahasa particularly policy documents were reviewed by the NE along with some external translation support made available through FAO. The latter included the various policies relating to eel, inland fisheries management areas, the new guidelines for EAFM in inland waters and technical reports on glass eel and eel aquaculture by WWF. Sections of the Kampar RTRW were also reviewed by the NE.

93. Semi-structured interview schedules were developed with a core set of questions for all stakeholders based on the six RQs and subsets of questions tailored to different types of stakeholders to investigate specific areas in more depth. These included subsets of questions for individual PMU members linked to Results Framework mid-term targets; for local government; national government; researchers, research institutions and NGOs; and local community beneficiaries. For example, tailored questions for individual PMU members focused on their specific area of responsibility, while those for experts concentrated on their area of expertise such as *beje* fisheries and peatlands, specific issues relating to the target fish species (e.g. aquaculture, eelpaths, eel certification). Similarly tailored questions for local and national government focused on the specific areas of engagement with the project. Additionally, an interview protocol was developed for the MTR team. This included introducing the MTR to the interviewee as well as the structure and conduct of the interview, expected duration, the confidentiality of the interview and the opportunity for the interviewee to share any additional comments or ask questions in an open-ended manner.

94. Most interviews were designed to last one hour, particularly those with beneficiaries and stakeholders from the non-fisheries sectors. More detailed interviews were conducted with selected PMU staff in order to assess progress towards planned outputs and outcomes based on Results Framework indicators and mid-term targets as there were critical gaps in progress reporting. In-depth interviews were also conducted with the National Project Coordinator (both designated NPC and the day-to-day person-in-charge or PIC-NPC), and other key stakeholders from MMAF, local Fisheries Office, FAO and certain key experts. Interviews with most of the PMU and FAO were conducted in English. All other interviews were conducted in Bahasa by the MTR National Expert (NE), who translated all the questions into Bahasa and the responses into English.

95. Information gathered through different means and from different stakeholders was grouped and used to answer each Review Question and triangulated to the extent possible by confirming key findings against at least two different independent sources (including from the desk review), with further cross-checks with relevant stakeholders where possible.

96. Altogether 39 interviews were conducted with 41 interviewees in total, 17 in English and 22 in Bahasa. The distribution of planned and final interviews across stakeholder categories is shown in Table 3. Five women stakeholders were interviewed representing 13% of the final sample, two from national government, one from local government and one from the PMU.[8] Interviews in Bahasa were conducted by the NE while those in English were undertaken by the MTR Team Leader (TL). Interviews were generally conducted separately by the NE and the TL in the interests of time. However, the NE, who only joined the team in January 2021, participated in some of the initial interviews in English in order to familiarize herself with the project and the interview protocol and approach. The TL also participated in selected interviews in Bahasa such as those with the National Project Coordinator and other key members of MMAF.

Table 3 Distribution of prioritized and actual interview samples

Stakeholder Categories	Number stakeholders in the planned interview sample (i.e. the final prioritized sample)	Number of stakeholders in the final interview sample (i.e. actually interviewed)
1. FAO / PMU / MMAF	28	20
2. PSC & national TWG Members not already included in Category 1	11	2
3. Local Government	24	10
4. Local Community Beneficiaries	16	2
5. Other relevant agencies/experts, including government bodies, research institutions and NGOs	9	5
Total	**88**	**39**

97. Additionally, despite the original decision to focus on two demonstration areas, in the end all five demonstration areas were covered to varying extents through both the desk review and interviews.

[8] An interview planned with a sixth woman stakeholder and project beneficiary was substituted at the last minute with the wife of the head of the local eel cooperative who was joined by her husband. The interview was therefore not counted as an interview with a female stakeholder.

Stakeholder engagement in the MTR

98. The MTR had planned for representative engagement of all key stakeholders through the stakeholder analysis and prioritization process (see MTR Inception Report & Section 1.4.2 above). However, the total number of stakeholders interviewed was smaller than originally planned partly due to having to undertake very detailed interviews to fill information gaps, partly because the MTR did not have a National Expert on board for many weeks to undertake interviews in Bahasa. Additionally, one particular group of stakeholders – local communities and village representatives - proved exceptionally difficult to reach remotely. This was partly due to project Field Officers (FOs) no longer being in the field during the MTR because of UN Covid-related restrictions on domestic travel in Indonesia. FOs were therefore unable to support the MTR to schedule interviews with less easily accessible stakeholders. In the case of Cilacap, the FO's home base was actually close to the project demonstration sites, but this FO unfortunately left the project at the end of October 2020.

99. The MTR nevertheless successfully interviewed a good range of other key stakeholders. In addition to FAO and the PMU, there was particularly strong engagement with stakeholders from MMAF, the project's national executing partner, and the Local Government Fisheries Offices in all five project demonstration districts, the main implementation partners on the ground. The number of local government partners outside the fisheries sector who could be interviewed was reduced, partly to due to the reasons mentioned earlier. However, some stakeholders also declined to be interviewed due to either being too busy or because they did not feel they were sufficiently engaged in the project. The reasons for reduced engagement of certain stakeholders in the MTR are discussed in Section 1.4.6.

100. Given that the project is still at a relatively early stage of implementation at mid-term, the MTR decided to focus on the project's key national and local implementation partners for the stakeholder interviews, i.e. on stakeholders from the fisheries sector. So although the MTR had been very keen to meet with MoEF officials in charge of wetlands management and conservation, as well as with key NGOs and institutions working in relevant areas such as Wetlands International and CIFOR, this was not possible in the time available. There was, however, very strong engagement in the MTR by MMAF and the Local Fisheries Office stakeholders as well as with key experts from different institutions, many of whom were happy to discuss the project well beyond the planned interview duration.

101. The gaps in stakeholder coverage have mainly affected certain aspects of the assessment of RQ5 on cross-cutting issues (Table 1) and the MTR has clearly highlighted where an assessment of a particular RQ sub-question could not be made or a rating assigned for these reasons. However, this has not significantly affected the MTR's overall findings as the project is still at a very early stage of implementation in most demonstration sites and has therefore had limited community engagement to date and relatively few project beneficiaries. Additionally, the MTR has given particular attention to the extent to which the project itself is engaging with different key stakeholders, including beneficiaries, marginalized groups and other important sectors beyond the fisheries sector, and how these different groups are

actually participating in the project.[9] Gender dimensions, which are also of critical importance, have also been given careful consideration through interviews with the PMU and in the desk review. These issues are discussed further in Section 1.4.6.

1.4.3 Composition of the current MTR Team

102. The MTR Team comprised an international Team Leader (Dr Sultana Bashir) and a National Expert (NE). The specific roles and responsibilities of each team member are given in their ToRs. The NE changed between the MTR inception phase (October-November 2020) and the main data collection phase. The first NE, Ms Sheila Carina, contributed to the methodology development, including the preliminary Theory of Change and further analysis of stakeholders (see IFish MTR Inception Report). Ms Edith Sabara joined the team in January 2021. She led all stakeholder interviews in Bahasa between January-March 2021, as well as analysing findings in line with the RQs and reviewing key policy documents and reports in Bahasa. This MTR report presents the joint findings, conclusions and recommendations of the current MTR team.

1.5 Limitations and Challenges of the MTR Process

103. The MTR faced three main constraints. The first was not being able to interview stakeholders or to see IFish demonstration activities in person as a result of Covid-related travel restrictions. The second was the lack of baselines for some indicators as well as missing or weak mid-term targets that did not easily allow assessment of quality. The third constraint was the variable quality and completeness of project information available to the MTR team, including of progress reporting against Results Framework indicators in the PIRs and PPRs. Finally, planning and conducting a remote MTR during a global pandemic and turnover in the MTR team added to the complexities and challenges of this MTR. These factors are discussed further below.

1.5.1 The impact of Covid and other factors on primary data collection, stakeholder engagement and the final interview sample

104. Covid-related travel restrictions limited the MTR team's ability to collect primary data through stakeholder interviews and field visits and to obtain a more detailed understanding of the implementation context. This particularly impacted the MTR's ability to engage local community beneficiaries and village government officials in the project demonstration districts as already discussed in Section 1.4.4. These factors were to a large extent mitigated by the fact that much of the project's work to date in the demonstration districts has focused

[9] The MTR was been very mindful of the following UNEG guidance on 'Integrating Human Rights and Gender Equality in Evaluation' included in FAO (2020b, Annex 8): *"How can the envisaged level of participation in the MTR process be ensured, even if the reality is that the intervention to be assessed has limited participation to date? How can the MTR help the intervention to overcome participation challenges?"* Although the first part was not possible remotely, the second part has been given due attention.

on policy-related interventions with limited site-based implementation and relatively few beneficiaries engaged, even in Cilacap. Additionally, IFish has had little engagement at the village-level since March 2020.

105. In general, undertaking a remote MTR proved much less efficient than one with a time-bound in-country visit.[10] Considerable time and effort were invested in coordinating with the PMU to arrange remote interviews and gather missing information. This was further complicated by: not having an NE on the MTR team for a number of weeks at the start of the main data collection phase; key officials falling ill at critical moments; government officials being generally busier than usual due to additional pandemic-related responsibilities as well as a change in the MMAF minister and the end of the Indonesian financial year in December; end of year holidays; and the new NE naturally needing some time to familiarize herself with the project to effectively plan and conduct interviews As a result of these combined factors, interviews with Bahasa speakers could only be started in mid-January. Also partly as a result of these factors, the total number of stakeholders who could be interviewed was also reduced. Efforts to recruit a second NE were unsuccessful. However, the slightly smaller interview sample than originally planned was also partly due to the need for far more detailed interviews with some stakeholders to fill critical information gaps than originally planned. This last was highlighted in Section 1.4 and is discussed briefly below.

1.5.2 Weaknesses in the original project design and results framework

106. Assessment of certain aspects of project progress was hampered by fundamental limitations in the original project design and weaknesses in related Results Framework indicators and targets as well as missing indicator baselines. This was compounded by the lack of any gender assessments or site-specific socio-economic and ecological assessments in the demonstration sites. Without this information, the preliminary ToC prepared by the MTR during the inception phase could not be further developed or validated. These issues are discussed separately in more detail in Section 4.2 of the Key Findings Section (also see Section 3 & Annex 7).

1.5.3 Quality of project information and access to key information

107. An enormous information package of variable quality and completeness was made available to the MTR at the start through a shared google drive, but with very little curation or quality control. Some key information was only provided very late in the MTR process. Weaknesses in project reporting and information management, including the lack of analysis and synthesis of project information are discussed later as part of the MTR findings (Sections 4.2.14 & 4.2.2.4). However, as a result of these limitations, the MTR had to conduct

[10] Also see the August 2021 Addendum to this report on p.6 which explains the stakeholder feedback process on the draft MTR findings and recommendations before finalization of the MTR report.

particularly detailed interviews with key PMU staff to verify information and fill critical gaps. Unfortunately, very little feedback was provided on the final draft report by the PMU and FAOID despite an extended review period of over two months and repeated requests for such feedback from the MTR team, particularly for factual verification given the complexities of project and also because some of the key documents including policies were only available in Bahasa. Finally, an updated GEF-5 Biodiversity Tracking Tool was not provided to the MTR despite repeated requests and this therefore could not be reviewed and included in the MTR report annexes.

2. Project Background and Context

108. The IFish project is the Republic of Indonesia's first GEF project to focus on the conservation and sustainable use of the country's inland aquatic biodiversity. Indonesia has an estimated 39 million ha of wetlands, including 15 million ha of peatlands, as well as a variety of other types of swamps and savannas and over 12 million ha of rivers and swamps and 2.1 million ha of lakes and reservoirs.[11] Despite their diversity and high levels of endemism, Indonesia's wetlands have received far less attention and investment than its forests and marine ecosystems, although the former may actually be more threatened.[12]

109. The project concept (PIF) was approved in May 2014[13] during GEF-5 (2010-14), the GEF's fifth replenishment cycle. The full project was developed between 2014-16 with a project preparation grant (PPG) of USD 200,000 from the GEF and USD 77,000 in cofinancing. IFish was approved for implementation by the GEF in late August 2016 and officially began implementation in June 2017 (see Annex 2 for further details). The project is executed by FAO Indonesia (FAOID) together with the Ministry of Marine Affairs and Fisheries (MMAF) of Indonesia, the lead national executing partner. The FAO IFish Project Management Unit (PMU) is hosted by the Fisheries Research Centre (FRC or Pusriskan) within MMAF's Agency for Research and Human Development.

110. IFish was designed to deliver eight planned outcomes and two main objectives by the end of the project (see Box 1). The project is also expected to contribute to the targets of Objective 2 of the GEF-5 Biodiversity Focal Area Strategy (BD-2) on Mainstreaming Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors.[14] In the long-term, the project aims to strengthen Indonesia's systemic capacity to sustainably manage and use its inland aquatic biodiversity for the benefit of local communities and to also improve protection of its globally important inland aquatic ecosystems.

111. The project has four major integrated components, three of which are designed to address the key barriers to its long-term objectives and major threats to high conservation-value freshwater ecosystems, while a fourth component has been included to ensure effective project monitoring, evaluation and adaptive management (see Tables 4 & 5).

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[11] IFish Project Inception Workshop Report, May 2017

[12] An ADB project for the sustainable management of the Citarum River Basin was approved in 2008 under GEF-4. No further information was available on this project on the GEF website. https://www.thegef.org/project/citarum-watershed-management-and-biodiversity-conservation-project

[13] The Project Preparation Grant was approved by the GEF in March 2014. See: *https://www.thegef.org/project/mainstreaming-biodiversity-conservation-and-sustainable-use-inland-fisheries-practices*

[14] Although project implementation has taken place in GEF-6 and since 2018 in GEF-7, mainstreaming biodiversity conservation and sustainable use into production landscapes/seascapes and sectors remains a key objective of the GEF-7 Biodiversity Focal Area Strategy.

Box 1 Fish Project Objectives

Environment Objective: *Strengthening the management framework for sustainable use of inland aquatic biodiversity to increase the protection of high conservation-value freshwater ecosystems*

Development Objective: *Increasing the provision of ecosystem goods and services and enhance food security for local people dependent on inland fisheries for their livelihoods*

Table 4 IFish Project Components

Component	Brief Description from Project Document
Component 1	**Mainstreaming of inland aquatic biodiversity into resource development and management policy** This component will ensure that critical knowledge on the aquatic biodiversity of inland waters, including the inland fisheries sector, is incorporated into sector policies and national development priorities as well as district-level land management plans. This is to be based a national analysis and assessment of risks to inland aquatic ecosystems together with analysis of relevant policies and legislation that would address identified risks to establish key gaps.
Component 2	**Demonstrations of conservation and sustainable use of inland aquatic biodiversity** This component focuses on achieving impact on the ground in terms of improving the status of freshwater ecosystems and their biodiversity through support to sustainable fisheries and aquaculture management at demonstration sites in Java, Kalimantan and Sumatra. Management practices for three types of inland fisheries will be tested under this component and be monitored, analysed and assessed for environmental and livelihood benefits under Component 3. Best practices identified will be integrated into resource development plans and management policy supported under Component 1.
Component 3	**Monitoring and assessment of inland aquatic biodiversity** This component will improve the capacity to assess and monitor inland aquatic biodiversity at national and local levels.
Component 4	**Component 4: Project monitoring and evaluation and adaptive management** This component will ensure that Project implementation is based on adaptive and results-based management, that a Project monitoring system is put in place and that mid-term review and final evaluations are carried out.

Source: Project Document, Executive Summary & Section

The project seeks to overcome three main barriers to addressing the causes of threats to inland aquatic ecosystems and their associated fisheries as shown in Table 5.

Table 5 Key barriers to the conservation and sustainable use of inland aquatic ecosystems and biodiversity in Indonesia

Barriers	Causes / Underlying Issues
1. Weak knowledge base and capacity to assess the status of and risks to inland aquatic ecosystems	• Dispersed and remote nature of inland fisheries • Resources often perceived to be of low value and managed by poor and remote communities. Fishers are often part-time or subsistence and not required to report on their harvest. • Relatively little investment in improving information and knowledge on inland aquatic biodiversity. • Sector not considered sufficiently important by local and national governments to justify costs of monitoring and surveillance • Numerous sectors impact inland aquatic ecosystems and biodiversity, such as agriculture and forestry, as well as the fishery sector, making it difficult to assess and address the varied threats to these. • Data recording, management and interpretation systems are generally lacking. • Insufficient appreciation of the role that aquatic biodiversity plays in supporting terrestrial biodiversity, e.g. forests, waterfowl and other animals, as well as livelihoods.
2. Weak governance framework for management of inland aquatic ecosystems and their associated fisheries	• Lack of a cross-sectoral, multi-agency approach to conserve, develop and manage inland aquatic biodiversity and to address ecosystem-level management issues e.g. inland waters and fisheries fall under the mandate of the Ministry of Marine Affairs and Fisheries (MMAF), whereas issues relating to conservation generally, including on land adjacent to inland waters are within the mandate of the Ministry of Environment and Forestry (MoEF). • Unlike in marine waters, destructive or harmful fishing gear and fishing techniques are not as systematically regulated or restricted in inland waters
3. Validated management practices for inland fisheries and associated ecosystems have not been established in most of Indonesia	• Limited or no use of catch quotas or restrictions for inland fisheries such as restricted fishing zones and gear restrictions. • Lack of fisheries management plans for economically important and threatened species. • Local land use management plans are either lacking or not implemented effectively to ensure sustainability of inland fisheries • Best management practices and international guidelines on responsible inland fisheries, aquaculture and forestry exist, but often have not been adopted at national level or more importantly at local level.

Source: Project Document, pp. 5-6

112. The Project Document summarizes the project strategy as a "*three-pronged approach that combines governance reform with innovative demonstration activities and strengthened monitoring and assessment of inland aquatic biodiversity*". This approach is expected to ultimately lead to the generation of Global Environmental Benefits (GEBs) through a GEF

alternative scenario that *"represents a major contribution to safeguarding globally significant biodiversity and improved management of ecosystems critical for inland fisheries"*.

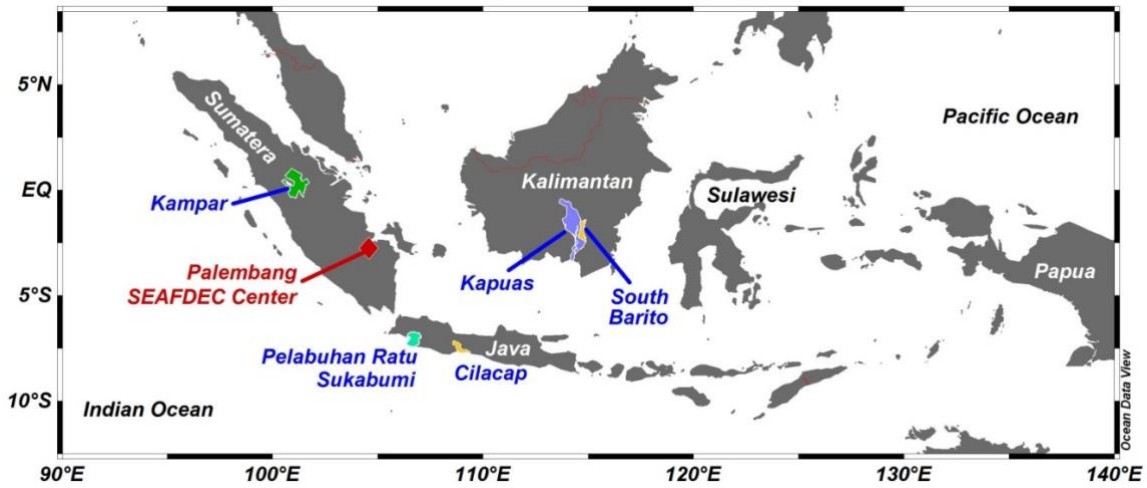
113. Given the physical characteristics of freshwater ecosystems and the many and varied uses made of inland waters by different stakeholder groups, a fundamental element of the project design is its multisector/multi-stakeholder approach, including local community engagement, based on the principles of an Ecosystem Approach to Fisheries Management (EAFM) and an Ecosystem Approach to Aquaculture (EAA) and other best practice.

114. Project activities are implemented both nationally and sub-nationally, with a focus on five demonstration districts (Figure 1) and three target fisheries as follows:

- Eel (*Anguilla* species) in Sukabumi and Cilacap Districts in West and Central Java, respectively
- Clown knife fish (*Chitala sp.* or *belida* in Bahasa) in Kampar District in Sumatra
- Asian arowana or dragon fish (*Scleropages formosus*)[15] in Kapuas and South Barito Districts in Central Kalimantan.

115. Additionally, the original project design places a strong emphasis on supporting and strengthening traditional fisheries systems and fishing practices such as *beje* in Kalimantan and *lubuk larangan* in Kampar, respectively.

Figure 1 Location of IFish demonstration sites in Java, Kalimantan and Sumatra



[15] Also known as Golden Arowana, Asian bonytongue and Golden Dragon Fish

3. IFish Theory of Change

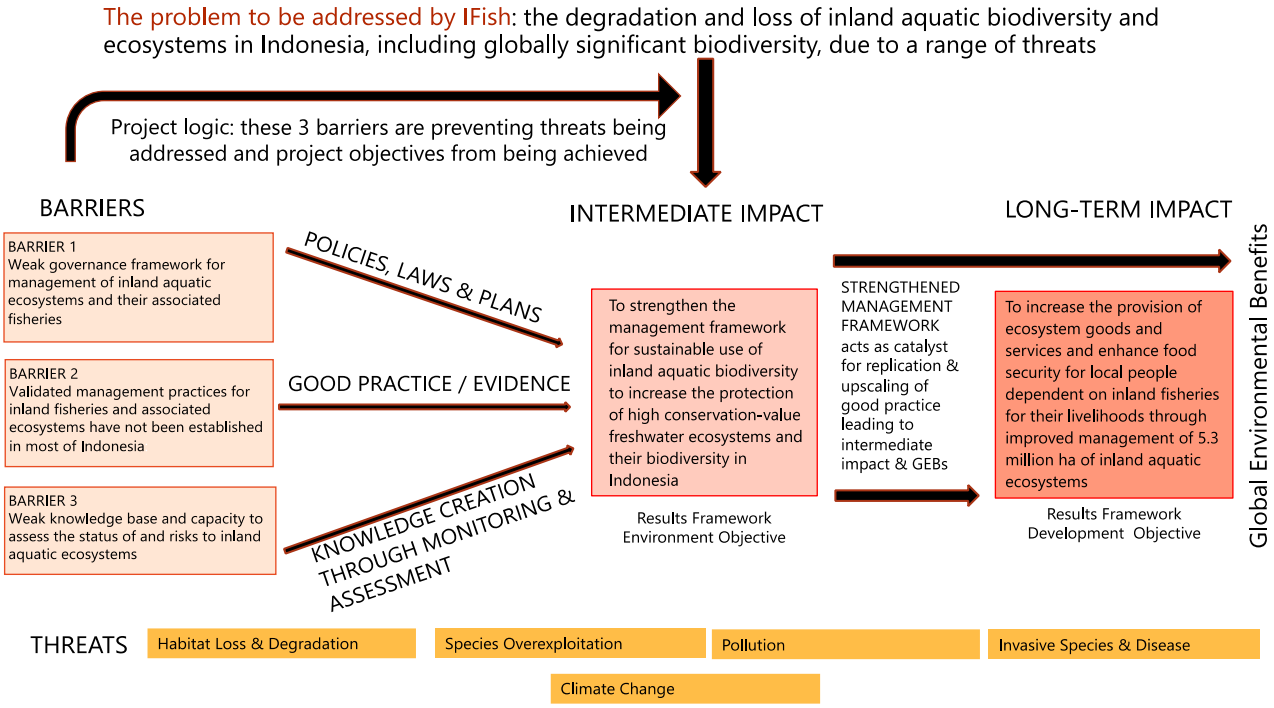
116. The IFish project was developed and approved before a Theory of Change (ToC) became mandatory for GEF projects. Subsequently, a draft ToC was prepared by an FAO consultant in 2019. This ToC, however, does not follow the usual conventions for ToC development and presentation (see FAO 2020a/Annex 10 and the GEF STAP 2019 guidance on ToCs). Instead, it describes the project causal logic in three separate diagrams but without any accompanying narrative explaining the logic. Although the three diagrams were included in the MTR ToRs, it proved difficult to interpret these (see Annex 1, MTR ToR, p.37-39). Therefore, a fresh preliminary ToC for the IFish project was reconstructed during the MTR inception phase as required in the MTR ToR. This was based on an analysis of:

- the original project design as described in the Project Document and the CEO endorsement template, with particular reference to the Project Strategy section, Results Framework and Results-based Budget
- the annual Project Implementation Reports (PIRs) and six-monthly Project Progress Reports (PPRs)
- findings from inception phase desk review and consultations with the PMU and FAO on implementation progress, challenges and any changes made to the original project design

117. ToC reconstruction was limited to Components 1-3, as Component 4 focuses on project M&E and adaptive management and is not directly related to barriers removal. The MTR's initial analysis showed that the overall project strategy is broadly logical in terms of a) the main barriers that need to be addressed to achieve the project's objectives and b) the project components developed to address each barrier (Figure 2).

118. ToC finalization and preliminary validation during the inception phase were hampered by the lack of adequate information, particularly from the demonstration districts and sites. The MTR's preliminary ToC was shared with the PMU and FAO and discussed directly with the National Project Manager (NPM) and FAO, including with the MTR Manager in FAOID, the Lead Technical Officer (LTO) and the GEF Funding Liason Officer (FLO). These discussions enabled the MTR team to better assess the project logic, implementation context and alignment with GEF expectations and requirements of a biodiversity mainstreaming project.

Figure 2 Summary of the IFish Project Strategy



Notes: On-the-ground experiences under Component 2 and knowledge generation under Component 3 are expected to influence national and local policy development under Component 1. Improved policies and management frameworks developed under Component 1 are expected to catalyse the upscaling of the good practices identified through demonstration activities in inland fisheries management in different types of habitats in Component 2. An additional component not shown here, Component 4, seeks to ensure effective monitoring and evaluation, adaptive results-based management and dissemination of lessons and good practice. While the Results Framework currently includes the development objective as an immediate objective with end of project targets, the MTR considers this to be a longer-term objective that can only be delivered through replication and scaling.

119. The MTR had intended to further develop and validate the ToC during the main data collection phase, but it soon became apparent that this would not be possible given the lack of important contextual information for the target fisheries and demonstration sites. This is discussed further in Section 4.4.1. The preliminary ToC exercise, which is included in Annex 6, was nevertheless an important input to MTR methodology development and also served to stimulate discussion within the PMU on the project design, Results Framework and adaptive management principles.

4. Key Findings and MTR Questions

120. The MTR's findings on each of the main Evaluation Questions (EQ) are presented below.

4.1 RQ1: Relevance and Ownership (S)

To what extent are the project's objective and planned outcomes consistent with country priorities, the GEF Biodiversity Focal Area Objectives, the FAO Country Programming Framework and Strategic Objectives, and the needs and priorities of national and local project partners and beneficiaries targeted by the project?

4.1.1 Overall strategic relevance (HS)

Finding 1 The project has a high degree of global, national and local strategic relevance and is well-aligned with the policies, priorities and objectives of national and local government, particularly to those of MMAF and project district Fisheries Offices, as well as to the objectives and priorities of the GEF and FAO. If the project's planned outcomes and overall objectives are realised, then the project is likely to be also very relevant to local communities and beneficiaries. However, it will not be possible to realise the planned results or anticipated longer-term benefits for inland fisheries, local communities and inland aquatic biodiversity if the project ends in June 2021.

121. The global relevance of the IFish project can be in no doubt. Although 71% of earth's surface is marine and only 1% freshwater, over 51% of recorded fish species are found in freshwater. Inland capture fisheries also provide food security and a source of livelihood for hundreds of millions of people across the world. Yet, freshwater ecosystems and their biodiversity are amongst the most threatened in the world, with nearly a third of all freshwater fish species at risk of extinction.[16]

122. Indonesia, one of most biodiverse countries in the world, has an estimated 39 million ha of wetlands and over 12 million ha of rivers and swamps and 2.1 million ha of lakes and reservoirs with a very high level of diversity and endemism.[17] The former includes an estimated 15 million ha of peatlands, as well as a variety of other types of swamps and savannas. The majority of these wetlands are freshwater or inland aquatic ecosystems and over 90% are located in Sumatra, Kalimantan and Papua. Despite their global and national importance, these inland aquatic ecosystems, which may well be more threatened than the country's forest and marine ecosystems, have received far less attention and funding from government and donors, although these.

[16] https://wwfint.awsassets.panda.org/downloads/world_s_forgotten_fishes__report_final__1.pdf

[17] https://www.tandfonline.com/doi/pdf/10.1080/10095020.2014.898560; IFish Project Inception Workshop Report, May 2017

123. The IFish project was developed to address this gap and specifically designed as a mainstreaming project, recognizing that sustainable management of inland aquatic ecosystems can only be achieved through a multistakeholder and cross-sector approach. Although originally approved in GEF-5 (Section 2), the project remains relevant to the current GEF-7 Biodiversity Focal Area Strategy, which has mainstreaming biodiversity across sectors and production landscapes and seascapes as one of its three key objectives.[18]

124. The project is also aligned with FAO's new corporate policy on the '4 betters', which includes a strong emphasis on restoring ecosystems, enhancing and protecting biodiversity and mitigating environmental impacts. All three areas are directly related to the IFish project. Additionally, the project will contribute to FAO's regional results and priority areas for Asia-Pacific relating to sustainable natural resources management and use and increasing resilience to climate change through improved food and nutritional security.[19] Additionally, this is FAO's first GEF biodiversity project to focus on mainstreaming inland aquatic biodiversity and fisheries into cross-sector national and subnational development plans.

125. Both MMAF and other stakeholders reported that the project is well aligned with MMAF's strategic plan priorities and particularly valued as MMAF's only major donor-funded project on inland waters fisheries. IFish is enabling MMAF departments that work with inland fisheries and District Fisheries Offices to meet some of their Key Performance Indicators (KPIs). The project is also helping to fill critical gaps in data and policy on inland fisheries and to raise the profile and understanding of the complexities and challenges of managing inland aquatic ecosystems both within MMAF and more widely. There is also good alignment with the priorities of District Fisheries Offices. Unfortunately, the MTR was unable to assess how well the project is aligned with the needs and priorities of local communities, particularly as the project has not yet undertaken any gender, livelihood or socio-economic assessments (see Sections 1.4 & 4.5.1).

4.1.2 Ownership (MS)

Finding 2 There is strong national and local ownership of the project, but mainly by MMAF and the district Fisheries Offices. The extent of ownership by local communities, including project beneficiaries, was not assessed but is unlikely to be widespread, given the narrow scope and limited extent of project implementation to date and the relatively small number of beneficiaries engaged so far.

126. Due to its strong alignment with fishery sector goals and practical support to realizing key priorities, there is strong ownership of the project within the sector, both nationally and locally. There appears to be stronger local ownership of the project, particularly by the

[18] http://www.thegef.org/publications/gef-7-biodiversity-strategy

[19] A new FAO Strategic Framework is being developed to which the project will be even more aligned than the earlier objectives, outcomes and regional results identified in the Project Document.

District Fisheries Offices, but also by some of the other district government offices, which may be the result of regular local engagement by IFish Field Officers (FOs) and the policy-related work under Component 1. The latter has involved engaging with multiple departments across local government (see Section 4.2).

127. There appears to be very little ownership of the project within national government beyond MMAF and the GEF OFP. This may be partly due to the fact that the national Technical Working Group (TWG), which was intended to be a multisector coordination mechanism, has not met since September 2018. Lack of capacity in the PMU and other implementation challenges, which are discussed in later sections, have also most likely contributed to the project not being able to focus on developing wider national ownership of the project. However, interviewees from research and academic institutions and NGOs all expressed strong support for the project. Efforts are underway to strengthen both national and local engagement in the project by setting up district-level TWGs and re-launching the national TWG (see Sections 4.2.1.1, 4.2.2.1 and 4.4.7).

128. The MTR did not assess the extent of project ownership by beneficiaries and local communities as this seemed premature, given relatively little implementation in most demonstration sites, and the interruptions and delays caused by the Covid-19 pandemic in areas where work had started. Ownership-related issues are discussed further in Sections 4.4 and 4.5.

4.2 RQ2: Effectiveness (MU)

To what extent has the project delivered on each of its planned outputs and outcomes and what is the likelihood of the project objective and Global Environmental Benefits (GEBs) being realised ultimately?

129. In line with GEF and FAO requirements, progress towards outputs and outcomes was assessed against existing logframe indicators and mid-term targets, regardless of their appropriateness or adequacy i.e of their 'SMART-ness'[20] (Annex 7). Where mid-term targets are missing, the MTR is required to assess progress towards the end of project target. Limitations of the existing Results Framework indicators and targets are discussed in Section 4.4.1. However, the MTR has made some allowance for delays caused by the Covid-19 pandemic in assigning its ratings of progress towards mid-term targets, as this is something outside the control of the project partners. The pandemic has particularly impacted field-based activities in 2020 due to UN restrictions on domestic travel in Indonesia.

[20] SMART indicators and targets are Specific, Measurable, Achievable, Relevant and Time-bound

4.2.1 Delivery of planned outputs (MU)

130. Progress in the delivery of planned outputs under each Component is discussed in some detail below, partly because project implementation is still very much at this stage, but also in order to provide the basis for the MTR's assessment and ratings of progress towards outcomes in later sections. Individual outputs are not rated in the MTR. However, the MTR is required to consider quality, quantity and usefulness in its assessment of progress towards planned outputs, as well as the obstacles to delivery. Overall findings relating to output delivery are presented first. These are also summarized in Annex 8.

Finding 3 Delivery of the project's 21 planned outputs and related MTR targets has been mixed, with many outputs delayed and some key ones unlikely to be realised. Most progress has been under Component 1, with some promising policy-related results. Demonstration work under Component 2 is most advanced in relation to eel in Cilacap and Sukabumi. The most critical output under Component 4 – an M&E system that also monitors outcome-level progress and encourages adaptive management – remains to be effectively implemented. As a result, there is insufficient ability to track progress towards results or the impacts of delays in one area on other related areas and inadequate attention has been given to the fundamental linkages between Components.

Finding 4 A number of project activities are not well aligned with the original project design and the delivery of planned outputs and outcomes, particularly under Components 1 and 2. For instance, there has been considerable investment in developing and proposing revisions to district spatial plans under Component 1, few of which have been approved or are likely to be implemented during the project timeframe. District plans (RTRW) also cannot be easily translated into integrated community-based land or wetlands management plans under Component 2 as originally envisaged in the Project Document. Other outputs, notably the Fishery Management Plans for clown knife fish and arowana, have been stalled due to implementation obstacles, while participatory land use plans and EAFM/EAA plans have not yet been developed despite having USD 240,000 budgeted for these activities in Years 1 and 2. This has led to a greater emphasis on developing 'ex-situ' aquaculture and wild restocking instead, and a shift away from the original project aim of piloting site-based strategies to improve inland capture fisheries management and use through multisector approaches and local community participation.

Finding 5 While activity implementation and progress towards some outputs has accelerated in 2020 (e.g. under Component 3), a lack of proper sequencing of inter-related activities within and across project components is undermining the quality and/or usefulness of certain outputs. The latter has been further compounded by the variable quality of inputs by Service Providers and Service Contractors.

4.2.1.1 Component 1: Mainstreaming of inland aquatic biodiversity into resource development and management policy.

131. The primary focus of Component 1 is capacity development. While all four project components include elements of this, Component 1 has the most planned outputs in this area, and aims to develop system-wide capacity for the conservation and sustainable management of Indonesia's inland fisheries and aquatic ecosystems. The specific purpose of Component 1 as stated in the Project Document is to ensure that critical knowledge on inland aquatic biodiversity, including the inland fisheries sector, is incorporated into sector policies and national development priorities as well as district-level land management plans. To achieve this, Component 1 includes a range of activities to improve regulatory and policy frameworks, develop individual and institutional capacity and strengthen governance. Component 1 has had the longest period of sustained implementation and the largest GEF expenditure to date. Related outputs are discussed together below rather than sequentially based on output number.

Policy-related Outputs (1.1.1, 1.4.1 & 1.1.2)

Output 1.1.1 Improved land management plans, including forestry and pollution controls, covering approximately 2,949 km^2 of critical inland aquatic ecosystems in Kalimantan, Java and Sumatra

132. According to the 2020 PIR, the mid-term target of 3 *'improved district land management plans, including forestry and pollution controls, covering approximately 2,000 km^2 of critical inland aquatic ecosystems'* has been 100% achieved and even exceeded (see Section 4.2.2/Outcome 1.1). However, the MTR's assessment is that the mid-term target has **not** been met and also that there is need for significant improvement in project progress reporting, which is discussed separately in Section 4.2.1.4 . While some elements of the revisions proposed by IFish have been included in one of the five district spatial plans, these changes will have little impact on the management and sustainable use of 'critical inland aquatic ecosystems' without considerable follow up action and investment, and it is extremely unclear to what extent the project can ensure this happens. Equally importantly, the PMU was unable to explain to the MTR how '*critical inland aquatic ecosystem*' is being defined and how progress towards project target areas is being calculated.

133. The Project Document makes frequent reference to government 'land management plans' and 'development plans' without providing the names of these plans in Bahasa or much explanation. In the absence of such guidance, the project has interpreted 'land management plan' to mean the RTRW-Kabupaten (RTRW-K), or the district (or regency) spatial plan, the nearest equivalent in the Indonesian context.[21] The RTRW-K forms the basis for the five-

[21] RTRW=Rencana Tata Ruang Wilayah. Kabupaten are districts, which are also known a regencies. The district development plan may also be referred to as the regional plan.

year district medium-term development plan, the RPJMD, which in turn is operationalized through a five-year strategic plan (the Renstra), which all sectors must follow. The RTRW is thus a potentially significant policy instrument for determining land use and related investment for development activities. However, in itself, it is essentially a land use zoning plan that defines what is permitted or not permitted in different areas, partly based on which sector, company or individual owns, controls or has interests in the land and other resources in a given area. It is critically important therefore to ensure that protected areas or important fisheries are reflected in this plan. But the RTRW is not a land management mechanism as such in that it does not include any detailed guidance or prescriptions on how to sustainably manage land or other natural resources.

134. Additionally, the Project Document treats the 'land management plan' as something that can be implemented by local communities, rather like an EAFM plan for a local fisheries. Thus:

- Output 1.1.1 aims to deliver '*Improved land management plans*';
- Output 1.2.3 has the (completely unrealistic) mid-term target of *'Training of 8 communities to implement land management plans'*, including thousands of fishers and fish farmers;
- Output 2.1.1 aims to deliver the '*Implementation of 5 land management plans in pilot communities…'*; and
- Output 1.4.2 aims to deliver the '*Implementation of sector policy'* (i.e. Fishery Management Plans) and revised '*land management plans covering 40,000 ha of critical inland aquatic ecosystems*'.

135. The project has invested considerable effort and resources under Output 1.1.1 to assess the existing spatial plans of all 5 project districts and propose revisions to these. Assessments, including stakeholder workshops, have been completed in all five districts and changes proposed to the relevant multisector local government team leading the revision of each district's spatial plan. There is, however, considerable variation in the analytical quality, clarity and completeness of the reports by the different Service Providers, who have not followed a standardized format for data collection and reporting.

136. Only one of the 5 district spatial plans had been approved by December 2020, the Kampar RTRW (2019-24), which was approved in December 2019, instead of the 3 'improved land management plans' expected at mid-term. Proposed revisions to the Kapuas and South Barito RTRWs were submitted by the project, but the deadline for accepting revisions for the Kapuas RTRW was missed, while the outcome for South Barito is unknown as government processes have been delayed by the pandemic. Proposed revisions to the Cilacap and Sukabumi RTRWs had yet to be submitted formally to the local government in December 2020.

137. The MTR understands from interviewees that the main change made to the Kampar RTRW was specifying the sites (sub-district) for proposed hatchery and aquaculture interventions

by IFish and the district Fisheries Office. Section 3/Article 5 of the Kampar RTRW includes some generic statements that could be described as broad '*forestry and pollution controls*' such as rehabilitation of deforested areas in upstream protected areas, undertaking river and dam 'normalization' for disaster mitigation and developing oil palm plantations using a 'sustainable development approach'. However, these are not linked to any specific locations or to improving the management of inland aquatic ecosystems as envisaged in the Project Document and the related RF indicator (see Annex 8). These will also be difficult to operationalize without explicit strategies and funded workplans for implementing these general prescriptions. There is apparently scope for introducing more specific recommendations at a later stage when the spatial plan strategy, the *Renstra*, is developed, although the project's ability to influence the latter is questionable (see Section 4.2.2.1).

138. Finally, as noted above, several Component 1 outputs related to the 'land management plans' are essentially 'undeliverable' – at least as originally designed, since the spatial plans are not plans that can be implemented by local communities to manage land or other natural resources. Unfortunately, the project has not undertaken any collation or analysis of the information generated by different Service Providers under Output 1.1.1 or of the implications of the proposed revisions to the district spatial plans - or of failure to adopt proposed changes - for project outcomes and objectives. Such an analysis could have helped clarify the challenges to delivering other related outputs and potentially led to proactive adaptive management of the project and changes to the original design and RF. This highlights the drawbacks of not having an effective project M&E system in place to help assess the impact and relevance of different activities. Project M&E is discussed further under Output 4.1.3 and Outcome 4.1 in Section 4.2.2.

Output 1.4.1 Three Fishery management plans for globally important freshwater biodiversity

139. The Fishery Management Plans (FMPs or RPP[22] in Bahasa) are a mechanism to promote the sustainable use and management of economically important species. These have been developed for a number of marine species but not as yet for any inland aquatic species. A key project output is the preparation of FMPs for each of the 3 target species, with a target of FMPs for clown knife fish and eel being completed by mid-term. Although this target has not been met, there has been good progress on the Anguilla Eel Fishery Management Plan (AE-FMP or RPP *sidat*) for the sustainable use of *Anguilla bicolor* and *Anguilla marmorata* across Indonesia. The development of this plan was initiated by MMAF before the project started, but had become stalled due to lack of budget for its completion. The plan was in the final stages of revision by end 2020 and is expected to be issued as an MMAF Ministerial Decree in 2021. The MTR only had access to an earlier November 2019 draft of the eel RPP

[22] Rencana Pengelolaan Perikanan

as the PMU itself did not have access to MMAF's most recent draft.[23] This was of some concern to the MTR as discussed later in Section 4.4.2.

140. Like the land management plans, the FMPs, as originally envisaged in the Project Document are supposed to guide further project implementation in the demonstration sites. Indeed, according to the Project Document (p.27), the FMPs are to be mainstreamed into the district land management plans and processes, i.e. into the district spatial plans/RTRW. Implementation of the land and fishery management plans is a Results Framework indicator for Output 1.4.2, with a mid-term target of 40,000 ha of critical inland aquatic ecosystems being managed through these plans.

141. In reality, however, the operationalization of an FMP requires many more steps and a much longer timeframe. A Ministerial Decree is not binding, but rather serves as a national guideline that opens the door for the development of further policies, strategies and plans and the allocation of government budgets for actual implementation. This includes the resourcing and implementation of a multi-sector action plan, based on an EAFM assessment that is included in the FMP, as well as additional scientific studies and consultations to develop a harvest strategy for the target species. Further regulations and budgetary allocation, particularly at provincial and local level, are key to operationalizing an FMP along with the establishment of a Fishery Management Council to oversee the implementation of the FMP and its related regulations. Given that MMAF's budget for 2021 has already been allocated, it is unlikely that the eel FMP would begin implementation until 2022 at the earliest. Even then, resources for implementation may continue to be limited given budgetary constraints due to the on-going impacts of Covid-19 and the historically lower investment in inland waters relative to other areas. This is discussed further under Outcome 1.4 in Section 4.2.2.

142. The MTR also learned that the development of the FMP for clown knife fish (*belida*) in Sumatra, another mid-term target, and also for Asian arowana (dragon fish) in Kalimantan, have both been problematic from the start for different reasons. Four *belida* species including clown knife fish are protected by national laws and cannot be legally harvested without special permits from MoEF. In practice, *belida* species, where present, continue to be heavily exploited, as it is the key ingredient of *pem-pek*, a type of savoury fishcake that is a traditional Indonesian delicacy. Asian arowana, a highly valued species in the international aquarium trade, has been classed as a CITES Appendix 1 species since 1975 and its harvesting for live export has been banned in Indonesia for many years. Although, the species can still be harvested to culture with special permits from MoEF, it is said to be

[23] Proposed activities in the earlier 2019 draft eel FMP/RPP included: promoting sustainable fisheries through improved use of information on each life-stage, improved landing data collection for glass eel, developing regulations on gear (to reduce bycatch and other negative impacts), establishing sustainable harvest levels, developing temporal and spatial protection measures and obtaining socio-economic and supply chain information in order develop further regulations to protect local livelihoods related to eel.

very difficult to find in the wild in Indonesia, and since 2019, the species has been classed by IUCN as endangered.[24]

143. Given these factors, it does not seem possible or meaningful to develop an FMP for either of these two species. As a result, in 2020, the PMU and MMAF decided provisionally that FMPs for these species should no longer be pursued, subject to approval by the PSC. The fact remains that these species continue to be heavily exploited and their habitats threatened - *belida* species for domestic consumption, and arowana, where it is still found, for the international aquarium trade. The inability to develop some kind of site-based management plan for these two inland capture fisheries has major implications for the project's Theory of Change and the delivery of planned global environmental benefits. The main alternative strategies to FMPs that are being considered by the project partners (FAO and MMAF) are aquaculture and wild restocking. However, no strategies have been developed so far to address the threats to these species from overexploitation and habitat degradation. There is also some uncertainty regarding the taxonomy and population status of clown knife fish. These issues are discussed further under Outcome 1.4 in Section 4.2.2.

Output 1.1.2: Sector policies and development plans reviewed and revised, and legal framework for inland aquatic resources extraction strengthened and incentives enforcement developed

144. There are some promising policy achievements to support sustainable inland fisheries under this output. These include facilitating the May 2020 MMAF Ministerial Decree 09/2020[25] on Fishery Management Area for Inland Water Fishery (FMA or WPP in Bahasa).[26] This is modelled on an earlier decree for marine FMAs, and covers the whole of Indonesia's non-marine area. Fourteen FMAs are spatially delineated in the decree based on their ecology, limnology and zoogeography, cutting across district and provincial boundaries. The decree is also intended to form the basis for future policies on management related to capture fishery, aquaculture, conservation, research, and fishery development in inland waters. As with the decree on FMP, additional steps and further regulations are required to operationalize the FMAs, particularly the institutional arrangements and budget for their governance and management. MMAF's Directorate of Fishery Resources Management within its Directorate General (DG) of Capture Fisheries is responsible for managing the inland water fishery resources.

145. In 2020, IFish also facilitated a second MMAF decree, the Ministerial Decree 80/2020[27] on the limited protection of *Anguilla* eel which has the potential to stimulate further policy

[24] https://www.iucnredlist.org/species/152320185/89797267

[25] Peraturan Menteri Kelautan dan Perikanan Republik Indonesia Nomor 9/PERMEN-KP/2020 tentang Wilayah Pengelolaan Republik Indonesia di Perairan Darat

[26] WPP=Wilayah Pengelolaan Perikanan.

[27] Keputusan Menteri Kelautan dan Perikanan Republik Indonesia Nomor 80/KEPMEN-KP/2020 tentang Perlindungan Terbatas Ikan Sidat (Anguilla spp) signed on 17 July 2020

change to maintain and increase the eel stock and the fishery's overall sustainability. The decree includes provisions for the limited protection of several eel species through restrictions on harvesting times and sizes. This includes a ban on the catch of glass eel on the 27th and 28th days of the lunar calendar, when large numbers of glass eel are known to travel from the ocean to the river mouth and begin their upstream migration. It also prohibits harvesting of adult eel above 2 kg for *Anguilla bicolor* and *Anguilla interioris,* and above 5 kg for *Anguilla marmorata* and *Anguilla celebensis* to protect the brood stock. These policy achievements are discussed further under Outcome 1.4 in Section 4.2.2. As with the FMPs and FMAs, operationalizing this decree involves further steps at the local government level.

146. The 2020 PIR also reports that the five-year medium term development plans for project districts (the RPJMD) have been reviewed and that initial Focus Group Discussions have been held, but the actual RF mid-term targets, which include a policy gap analysis, have not been met. The PIR also does not provide any detail on the findings of the development plan reviews, particularly on gaps relevant to the management of critical inland aquatic resources and to strengthening incentives for enforcement. Policy and advocacy materials for targeted decision-makers have also not been developed.

147. A critical gap in relation to the project's policy-related work is the lack of any analyses and syntheses of the considerable work undertaken by different service providers under this and other outputs. Other major gaps include the lack of systematic reviews of relevant national and local policies, laws and plans on the conservation and management of wetlands, including of peatlands, environment, agriculture, energy and climate change. This omission is particularly striking in relation to MoEF policies, laws and plans, which are clearly highly relevant to project outcomes and objectives. Such reviews would in turn support revisions to the project Theory of Change and Results Framework. The latter for example, makes reference to an MoEF policy of 2014 on the Grand Design for Preserving Lake Ecosystems, which therefore continues to be mentioned in the project PIRs. The MTR was unable to establish the relevance of this policy as the document was not available and the current members of the PMU were also not familiar with the policy or its relevance to IFish. Similarly, no one in the PMU had any knowledge of MoEF's work on wetlands conservation, including whether there have been any updates to the 2014 National Wetlands Action Plan or of any other on-going relevant programmes within MoEF. Partnerships and stakeholder engagement are discussed further in Section 4.4.6.

148. Finally, the MTR believes this particular output is in fact a higher level outcome rather than an output and should replace current Outcome 1.1 with some minor revision, while the existing Outcome 1.1 should be become an output (see Annexes 7 & 8).

Capacity development-related Outputs (1.2.1-1.2.3)

Output 1.2.1: Capacity building plan for sustainable management of inland aquatic resources developed and mechanisms for implementation identified

Output 1.2.2: At least 120 environment and fisheries professionals from relevant ministries, the private sector and academia trained in sustainable management of inland fisheries

Output 1.2.3: 12 local communities including 3,000 fishers and 1,000 fish farmers trained to implement 5 land management plans covering 60,000 ha of critical inland aquatic ecosystems

149. Most mid-term targets have not been met for these outputs as activities have been delayed while some were not delivered to an adequate standard by Service Providers and Service Contractors, in the particular work undertaken in 2019 on capacity assessments and training modules development. This has had limited impact so far on the delivery of related outputs and outcomes as the latter have either also been delayed and/or are problematic, such as the earlier mentioned Output 1.2.3, which involves training thousands of fishers and fish farmers to implement land management plans covering 60,000 ha. As currently framed, this output is both unimplementable and unachievable.

150. Some ad-hoc, very short trainings (generally 1/2 – 1 day and occasionally 2 days) and awareness raising activities have been undertaken in Cilacap, Sukabumi & Kampar for example on EAFM/EAA, responsible aquaculture, fish capture data recording, eel aquaculture and obtaining loans and developing proposals. The impact of such short trainings (in terms of knowledge retention and skills development and application of both) and therefore value of such trainings is unclear, especially given the lack of continuity in implementation of activities in the demonstration sites, which has been interrupted by turnover in the PMU and subsequently by Covid-19.

Output 1.3.1: Multi-agency coordination mechanism established on freshwater ecosystem management at central level and in each participating Province lead by the fishery sector with participation of agriculture, forestry and environment sectors

151. The Project Document envisaged the establishment of national and district-level multisector coordination mechanisms led by the fishery sector that would include the participation of the agriculture, forestry and environmental sectors amongst others. By mid-term, it was expected that the relevant sectors would be meeting twice yearly at both national and district-levels to coordinate on freshwater ecosystem management. To date, there has been one meeting of the national Technical Working Group (TWG) in September 2018. The TWG has not met subsequently as the original MMAF one-year Ministerial Decree for its operation has not been renewed. A ToR for reconstituting the national TWG is currently under review by MMAF.

152. Meanwhile, initial discussions with local stakeholders for the establishment of district-level TWGs were held virtually for 4/5 of the project districts in November and December 2020. The initial consultation on the Cilacap TWG meeting will be held in 2021. This is a potentially promising mechanism for greater local-level coordination and collaboration on the management of inland fisheries and the wider inland aquatic ecosystem.

153. However, the lack of an effective multi-agency coordination mechanism at national level, particularly between MMAF and MoEF, is likely to have resulted in missed opportunities in terms of identifying complementarities and synergies between IFish and other relevant programmes.

Output 1.4.2: Implementation of revised sector policy and land management plans in critical inland aquatic ecosystems in Java, Kalimantan and Sumatra

154. There have been some important revisions to policies in relation to eel under Output 1.1.2 as noted above. There are also some district level regulations in Sukabumi, such as Regency Regulation No. 25/2018 concerning conservation and eel fisheries resources management in Sukabumi District and Circular Letter No. 523/2019 to stakeholders, especially the eel aquaculture industry, concerning eel restocking in Sukabumi District. However, as discussed further in Section 4.2.2, the mid-term target of *'revised sector policy and land management plans covering 40,000 ha of critical inland aquatic ecosystems'* has not been met.

4.2.1.2 Component 2: Demonstrations of conservation and sustainable use of inland aquatic biodiversity

155. Delivery of outputs under Component 2 has been more limited with very little of the project budget for this component spent by December 2020, and most activity to date on eel aquaculture in Cilacap in Central Java and Sukabumi in West Java. Some ad hoc work has been undertaken in Kampar in Riau, Sumatra. Work is yet to start in the two project sites in Central Kalimantan. A major gap in existing and planned work under Component 2 is the lack of one or more demonstrations on integrated wetlands management. This is a central part of the original project design and critically important for a GEF project aimed at conserving globally significant inland aquatic biodiversity.

156. Existing and planned demonstrations are currently focused on aquaculture and restocking, with insufficient emphasis on wetlands management and connectivity to sustain and restore inland fisheries. Other than the proposed restocking, and in the case of eel the proposed fishpaths, no demonstrations have been planned to improve the sustainability of the eel, *belida* and/or arowana capture fisheries in project sites through an EAFM or equivalent multistakeholder site-based plan that can be developed and implemented in the life of the project. Yet, the development and implementation of such site-based plans are an integral part of the original project design, and something which the Project Document suggests would happen through the 'land management plans' and the species Fishery Management Plans. But as explained earlier, these plans are not suitable for site-based implementation during the project's timeframe (Section 4.2.1.1). At the time of the MTR, the project had no

clear plan for piloting integrated wetlands management and increasing multistakeholder collaboration to address threats to wild capture fisheries at a site-based level.

157. The MTR's concerns about existing and planned demonstrations are discussed in greater detail under Sections 4.2.2 (Outcome 2.1), 4.2.3 (Likelihood of delivering planned GEBs) and 4.6 (Sustainability).

Output 2.1.1: Implementation of 5 land management plans in pilot communities and establishment of demonstrations including investments on aquaculture, capture fisheries, integrated wetland management, and fish passage structures

158. The first part of Output 2.1.1, i.e. the implementation of 5 land management plans in pilot communities, is essentially undeliverable as already discussed under Output 1.1.1. Instead, the project has focused on the second part of this Output and the establishment of individual demonstrations. The mid-term target for this output is six demonstrations established. Some PMU interviewees reported that the project has established 14 demonstrations. But it is clear from the Project Document that the real intention of the indicator and mid-term target for this output is to have demonstrations linked to the implementation of site-based land management plans and FMPs, with strong engagement of local communities. Given this, the MTR does not consider this target to have been achieved, regardless of the number of individual demonstrations established. While this may be partly due to the inability of PMU staff to work in the demonstration sites because of the pandemic and the Component 2 lead position being vacant from December 2019 until July 2020, at present the project has no strategy for developing site-based management plans linked to the target capture fisheries.

159. Demonstration activities have been focused on eel aquaculture in Cilacap in Java, particularly in the village of Kaliwungu, which was declared an 'Eel Village' or Kampung Sidat in November 2018, and in Cimrutu Village. Kaliwungu had a functioning eel cooperative, the Mina Sidat Bersatu Cooperative (KMSB) with 50 members, and was already culturing wild-caught glass eel and elvers with opportunities to supply the international market for eel. But the cooperative was facing production problems due to very high mortality at the nursery stage, shortages in the supply of glass eel and elver and other factors. In Cimrutu, communities had no prior involvement in eel aquaculture and the project has facilitated the establishment of the Mina Kujang Kencana cooperative for this purpose.

160. IFish activities in both villages began in earnest in March 2019. The demonstration in 2019 was led by a Service Contractor (SC), PT Laju Banyu Semesta (PT Labas for short), a private sector company , which was tasked to provide technical support to the two cooperatives from start to finish, along with elvers for culturing in local ponds to consumption size and feed, as well as training and other capacity development support and monitoring.

161. The eel aquaculture demonstration ran into numerous problems, including high mortality and below required growth of the cultured eel due to a combination of reasons, including weather events (unexpected heavy rainfall, lightning strikes, long dry season), technology-related issues, and delays in feed delivery to the village cooperatives by the SC. The latter appears to have been due to issues relating to the cooperative's cash flow problems and the SC's lack of understanding of FAO administrative procedures, whereby disbursement of payments are only made after delivery of services. The net result was an unsuccessful eel aquaculture demonstration that also revealed potential barriers to replication and long-term sustainability which are discussed separately in Section 4.6. The MTR was also concerned to learn that no provision was made for a waste management system from the eel aquaculture ponds and that polluted water is being pumped back into the river to clean the ponds at the time of harvest.[28]

162. The project plans to continue its eel aquaculture efforts in Cilacap and also to initiate these in Sukabumi, but this time working with the local government Fish Production Centres, the BBI (*Balai Benih Ikan*) of the Fisheries Office and using their aquaculture facilities to culture glass eel to the elver stage. These would then be provided to eel farmers to fatten to market size in their own ponds, with a proportion retained for restocking to open waters, which could potentially include protected habitats and conservation areas. Without successful eel aquaculture, restocking has not been possible so far, but sites have been identified and restocking guidelines are being prepared by the PMU. Additionally, initial consultations with the Public Works Department and terms of reference have been prepared for the development of an eelway in Sukabumi to allow eel to cross dams and migrate upstream. The project proposes to use biofloc technology to increase the survival rate of glass eel to elver size. However, it is unclear how some of the problems encountered by the cooperatives in culturing the elvers in the Kaliwungu demonstration will be avoided or mitigated.

163. Planned demonstrations in Kampar include *belida* aquaculture with BBI Sipungguk, which will begin as soon as brood stock is obtained, and eventual restocking if the *belida* aquaculture proves successful. Three areas have been proposed for in restocking with *belida*: Bakuok Lake in Aur Sati Village, Tambang Subdistrict; Koto Panjang Dam in 13 Koto Kampar Subdistrict; and different sites in Kampar Kiri Hulu Sub District which has many areas where local communities still practice *Lubuk larangan*, a customary law that only permits people to catch fish once in a year in a protected location, generally a specific part of a river or water body. LIPI and MMAF plan to undertake a study to identify the most appropriate locations for *belida* restocking in Kampar. Meanwhile, although the project has obtained a permit from MoEF to collect *belida* brood stock from the wild, collection is limited to up to 250 individuals within a weight range of 2.0-2.5 kg. It has proved difficult thus far to obtain brood

[28] The MTR was informed by FAO that the need for waste management is somewhat dependent upon intensity of culture and the number of farms. The major threat is muddy wastewater at harvest, rather than routine water exchange. However, FAO acknowledges the importance of ensuring that best practice is implemented in the demonstrations.

stock within this weight range. The project also plans explore how it can strengthen these customary practices, although it is unclear how this in itself will lead to addressing the varied types of threats to inland aquatic ecosystems and their associated fisheries. Furthermore, the spatial plan for Kampar does not recognize areas subject to customary laws such as *Lubuk larangan*.

Demonstrations on revitalizing *beje* fisheries are due to begin in Kapuas and South Barito in 2021. *Beje* is a traditional fishing method in tropical peatlands based on trapping wild fish in natural or artificial ponds in areas that become flooded during the rainy season from November to March. As the waters recede during the dry season from April to October, fish become trapped in the ponds and are eventually harvested. The project intends to focus on artificial *beje* with plans for revegetating the area surrounding these. The project also has plans for arowana restocking in Kapuas and South Barito.

Output 2.1.2: Aquaculture awareness on pollution and law

164. The mid-term target of 500 people receiving training, dissemination and extension on garbage management along with law enforcement by local government does not appear to have been met. There has been a one-off clean the river campaign in Kampar, which included some awareness raising and training on pollution. The 2020 PIR states that 500 people participated in the event but this appears to have been more an awareness-raising exercise rather than a systematic effort to change behaviour on garbage management and no evidence is available on the impact of this work through project M&E.

165. Although this output is poorly worded with indicators and targets that are not very SMART, surveillance and law enforcement are clearly important aspects of protecting inland aquatic ecosystems and strengthening sustainable fisheries. However, law enforcement by local government is also not tracked by the project or reported on in the PIR.

Output 2.1.3: Best-practice manuals for conservation and sustainable use of inland aquatic biodiversity developed based on the evaluation of demonstration activities

166. As the demonstrations have been delayed, the mid-term target of evaluating the demonstration activities as an input to developing the best practice manuals could not be achieved. It is important that any best practice manuals produced by IFish in relation to eel, build on existing guidelines and demonstrate their added value. For instance, WWF Indonesia has produced two guidelines similar to the ones proposed by IFish, one on best practice for glass eel harvesting and the other on increasing the quality and sustainability of cultured eel through improved nursery and breeding practices as well as on the establishment of eel cooperatives and businesses.[29]

[29] These were published in Bahasa in December 2018. The aquaculture manual provides guidance on best practice for all major aspects of eel aquaculture from eel seed characteristics, the nursery process of

Output 2.2.1: Inland fisheries value/supply-chain analysed for river eel fisheries and Serayu River and Pelabuhan Ratu catchments

Output 2.2.2: Pre-assessment of certification for eel fisheries on Serayu River and Palabuhan Ratu catchments

Output 2.2.3: Guidelines for certification or ecolabelling developed for eel fisheries on Serayu River and Pelabuhan Ratu catchments

Output 2.2.4: Capacity building of eel fishery actors along the value chain to apply certification and ecolabelling guidelines

167. Mid-term targets for outputs 2.2.1-2.2.4 have not been achieved although considerable preliminary work has been undertaken and there is a good general understanding of the domestic eel supply chain in Java. However, a proper analysis of the supply and value chains of the eel fisheries in Cilacap and Sukabumi remains to be done. The value of IFish undertaking Output 2.2.2 is a little unclear as WWF Indonesia has already completed a pre-assessment of Marine Stewardship Certification (MSC) for the glass eel fisheries in Sukabumi, the main source of glass eel in Java. (The adult eel fishery is largely non-commercial.)

168. The results of WWF's pre-assessment show that MSC certification is likely to be both difficult and costly because of the need to confirm the health of the wild eel stock, one of the MSC's three core principles. The Indonesian eel population is very likely a single population rather than separate populations around Java and Sumatra. Assessing the health of the stock will be exceptionally difficult given the vast area covered by the population. Work being done on wild eel in Europe also suggests that obtaining MSC certification is extremely unlikely in the foreseeable future.[30]

169. A review of relevant international certification and ecolabelling guidelines has also been completed by IFish. This proposed a two-pronged approach: licencing of larger enterprises and incentivizing their adoption of the more expensive international certification and ecolabels; and a different, more affordable approach for small-scale enterprises such as the village cooperatives (see Section 4.2.2.2/Outcome 2.2 for further detail). Given the WWF pre-assessment and the review findings, the justification for another international certification pre-assessment for eel by IFish needs to be reconsidered. In the meantime, the project has decided not to pursue the development of the Standar Nasional Indonesia (SNI) for glass eel and elver collection and trade and eel fattening, although this is the planned mid-term target for Output 2.2.2. The reason for this change, as reported in the 2020 PIR (and also

growing from glass eel to elver stage, eel feed and maintenance, cultivation facilities siting and maintenance, water quality management, pest and disease control, harvesting and post-harvest. It also covers the inputs needed, permits required, guidance on market access and the social and environmental aspects of eel culture, including impacts of surrounding areas (such as agriculture) ad recording and monitoring of different aspects of the culture for management and eel production analysis.

[30] https://www.sustainableeelgroup.org/wp-content/uploads/2016/12/113-MSC-SEG-Standard.pdf

given to the MTR directly), is that the SNI are apparently not relevant for market access, particularly for the international market. Instead the project proposes to continue exploring international certification including the Aquaculture Sustainability Council (ASC) certification standard. However, the MTR has learned that this too will not be possible as eel is not one of the 17 species groups currently covered by the ASC standards.[31] This is unlikely to change given that the European eel is endangered and that *A. bicolor* is near threatened. Nonetheless, it may be possible to explore other national standards or labels.

170. Outputs 2.2.3 and 2.2.4 will only become relevant once a decision has been taken about how the project intends to move ahead on certification and eco-labelling. It should be noted that the project currently has relatively little engagement with the major private sector actors in the eel supply chain. According to the 2020 PIR, PT IROHA, one of the biggest exporters of eel in Indonesia, has committed to accept elvers grown from glass eel stage from the project demonstration in Sukabumi. PT IROHA currently sources glass eel from various locations across Indonesia to culture and fatten before export and have agreed to do this in order to reduce the impact of glass eel fishing and support sustainable eel harvesting. If this arrangement materializes, the elvers would actually be coming from the BBI of the Fisheries Office rather than from local communities.

4.2.1.3 Component 3: Monitoring and assessment of inland aquatic biodiversity.

Output 3.1.1: A comprehensive species identification guide for inland aquatic biodiversity developed and translated to local and English languages

171. The mid-term target for Output 3.1.1. has been achieved as a draft species identification guide is available in Bahasa. This covers 225 species from 54 families found in the project demonstration sites. A user-friendly non-technical format has been used, with photographs highlighting key features for identification. The main intended user of the guide are the Local Fisheries Offices in the project districts and, to a lesser extent, local community fisher groups. Bahasa and English versions will be released within the next 5 months.

172. A major limitation of the guide is that as it was not possible to conduct any ecological field surveys or assessments during 2020 due to the pandemic to complement the secondary information. Thus, the guide is primarily based on LIPI's species database which is mostly based on surveys from the 1970s to the 1990s and is particularly out of date for remote areas. The most recent data for species included in the guide is for Java and dates back to 2010-12.

173. The MTR observed some additional critical gaps in information in the individual species description, particularly as this is a product from a GEF co-financed biodiversity project. These included the absence of a section on the national and international conservation

[31] https://www.asc-aqua.org/what-we-do/our-standards/

status of individual species, specific threats (including any that apply to particular life cycle stages), population trends and any laws and regulations that apply to each species harvest and/or collection (as in the case of *belida*, arowana and eel). Additionally, the guide would be greatly strengthened by including photographs to help users identify life cycle stages of key species, such as the three species targeted by the project and by adding more information on some of the problems associated with the culture and capture of individual species, such as the over-exploitation of glass eel and the hybridization of wild Asian arowana as a result of release of captive-bred varieties. There is also no information specific to each of the project sites which would potentially make the guide more interesting to local users.

174. The MTR did not review the draft introductory sections but it would be useful to ensure that the Threats and Conservation section provides adequate information to raise awareness about the threats to critical inland aquatic ecosystems and the challenges of managing these. The draft guide also does not include a section on the critical economic and societal values of healthy inland aquatic ecosystems, from climate change mitigation and adaptation to the regulation and provision of key ecosystem services. The MTR also did not establish if the guide explains which are the 'critical inland aquatic ecosystems' in Indonesia, including their characteristics, location and extent.

175. Another key gap is related to the process of developing the guide. The Project Document states that the development of the guide will be undertaken by LIPI in collaboration with FAO's FishFinder Programme, MMAF and SEAFDEC. However, there has been no recent involvement of the FAO LTO or any other FAO technical staff despite the lack of inland fisheries expertise in the FAO Indonesia Country Office and the PMU.

176. Finally, it is unclear to what extent the guide will, or can, contribute to its originally intended purpose of significantly reducing the proportion of unidentified species in official statistics on inland fish catch. Nevertheless, the guide still has potential value in other ways. This is discussed further under Outcome 3.1 in Section 4.2.2.

Output 3.1.2: Data collection and monitoring system established using GIS and conventional methods that includes inventories of aquatic biodiversity of habitats in the 5 pilot areas and the mapping of wetlands in Kalimantan, Java and Sumatra

177. None of the mid-term targets for this output have been achieved, although they are required to guide the development of demonstration activities under Component 2 and to monitor the project's conservation impact.. These targets include inventories and thematic maps of aquatic biodiversity for each demonstration area along with site-based aquatic biodiversity monitoring systems.

178. The 2020 PIR reports that this output is 50% completed. The MTR estimates progress to be closer to 25%, with increased progress largely due the accelerated development of the Integrated Fisheries Geographic Information System (IIFGIS) since April 2020. IIFGIS plans to combine earth observation of aquatic habitats with biological survey data from the

demonstration sites and eventually from other critical sites and also statistical data. The overarching objective of IIFGIS is to provide relevant information to decision-makers on the environmental, economic, and social aspects of fisheries to inform policy development on inland fisheries, such as the location of spawning areas, migration routes, areas of disturbance, critical species habitat and distribution of other important biodiversity. During the life of the project, IIFGIS is supposed to contribute to policy development under Component 1 and to inform the implementation and monitoring of demonstration site activities under Component 2. Thus, a key component of IIFGIS is the assessment, analysis and monitoring of inland aquatic biodiversity in the demonstration sites over time and space and to develop integrated conservation indicators linked to habitat monitoring, allowable catch and identification of key species for conservation.

179. There have been some surveys of fish catch in Kampar and analysis of Fisheries Office catch inventory data in Kampar, Sukabumi and Cilacap between July 2019-February 2020. But actual site-based biodiversity assessments, which were already greatly delayed, could not be carried out in 2020 due to the pandemic. Consequently, there are no site-based inventories, integrated conservation indicators or monitoring systems in place. IIFGIS can currently generate land cover maps, based on MoEF (KLHK) annual land cover maps, but not thematic maps of the aquatic biodiversity of the demonstration sites.

180. The project still plans to undertake surveys of the aquatic biodiversity at the project sites and to produce inventory reports in 2021 and to implement monthly data collection for monitoring. However, the late implementation of this activity inevitably affects the quality of other project outputs such as the Species Identification Guide, the design of new demonstration activities (such as the proposed *beje* development) and overall project results monitoring.

181. Meanwhile the proposed structure of IIFGIS was still under review by MMAF in early January. MMAF have requested the inclusion of an EAFM assessment tool as the current Minister would like IIFGIS to support the implementation of EAFM for inland waters. IFish has already planned to include the tool. IIFGIS does not currently plan to include details of areas under customary management and use of inland aquatic ecosystems and resources although this would align well with the objectives of the CBD. The MTR did not review the proposed structure of IIFGIS in detail or the secondary data sources that are being used other than to confirm that IIFGIS is incorporating relevant publicly available data from the government's One Map/One Data initiative. However, the MTR has been informed by FAOID that IIFGIS will become part of MMAF's Data and Information Centre (Pusdatin) and that it will be open access as would be expected of a GEF co-financed.

182. Finally, as with the Species Identification Guide, no recent technical inputs regarding the structure and operation of IIFGIS have been obtained from the LTO or other FAO technical staff, i.e. since a new LTO with considerable EAFM and other technical expertise came on board in September 2020. The PMU is planning to prepare a methodology document on IIFGIS.

Output 3.1.3: National and local stakeholders trained in assessment and monitoring of inland aquatic biodiversity at SEAFDEC Centre in Palembang

183. Some ad hoc training has been provided on fish catch species identification and recording. Most activities, however, are yet to start and to be conducted systematically. An online training needs assessment is planned whereby a list of training options will be distributed to targeted stakeholders to select those that would be most useful. The main recipients of training at the national level will be different departments of MMAF, while at the district level, they will be the local Fisheries Offices, including their enumerators, the community fisher and fish farming groups, and some stakeholders from the proposed district TWGs. Trainings are no longer planned to be conducted at SEAFDEC, which is in South Sumatra, because of the logistics and additional expenses involved. This output needs to be adjusted to reflect this and the change recorded in the PIR.

184. Activities related to this output were due to begin in January 2021 including the online training needs assessment. Most training modules are still to be developed other than the one for IIFGIS, which is well underway and expected to be completed soon. LIPI will be developing a training module on species identification and biodiversity assessment. The project plans to hold training for biodiversity assessment three times a year to integrate this activity with site-based data collection.

4.2.1.4 Component 4: M&E and Adaptive Learning

185. Despite the critical importance of M&E and adaptive learning for the overall effectiveness of the project, insufficient attention has been given to Component 4 generally, including at the design stage. The original Results Framework indicators and targets are extremely general and the narrative in the strategy section of the Project Document also does not provide particularly useful guidance on this Component. However, it does state that the Results Framework is to be *"reviewed at inception to finalize: i) outputs ii) indicators; and iii) missing baseline information and targets. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.) will also be developed during project inception by the M&E specialist*." (Project Document, p.58). The project budget also makes provision for support from an international expert on M&E for developing the project M&E system in Year 2. However, an M&E specialist has not been recruited so far.

Output 4.1.1: Project monitoring system monitors project outcomes and outputs, M&E system operating and used for adaptive project management

186. The mid-term target for Output 4.1.1 has been met in so far as the 3rd and 4th 6-monthly project progress reports (PPRs) have been produced, but there is no effective M&E system in place to monitor implementation and progress towards outcomes and to thereby support adaptive project management. No international technical support has also been obtained to date for developing the M&E system as originally planned and budgeted in the Project Document. The reason given for this by multiple stakeholders is that there is reluctance

within MMAF to use the project budget to hire international consultants who are much more expensive than national consultants. The MTR was initially informed that oversight of M&E is to be one of the responsibilities of the new NC for communications who, however, is not an M&E specialist. The MTR was subsequently informed that this was not the case.

187. No mid-term targets are included for the other two important indicators for this output: *'Baseline and targets for project indicators refined'* and '*Annual PIRs submitted to the GEF Secretariat'*. As with most of the other Results Framework indicators and targets, these too lack 'specificity' and a quality dimension. However, not only have baselines and targets for indicators not been refined, but many baselines are still completely missing while in other instances, the indicators themselves need to be revised. There is also no reference to the Tracking Tool for Biodiversity mainstreaming projects. The weaknesses of the current Results Framework are discussed further in Section 4.4.1.

188. The MTR also found many weaknesses in project progress reporting through the PPRs and PIRs. These are key sources of information for any project review or evaluation. However, the MTR found innumerable inconsistencies, errors and omissions in these reports, making them an unreliable source of information on project progress, implementation challenges and risks. On the one hand there is rigid adherence to the original Results Framework wherever possible. On the other, where changes are clearly needed, or have already been made, these are not clearly explained and justified and the reporting adjusted accordingly. Key terms, including species names, are used in an inconsistent or unclear manner, giving rise to confusion both internally and externally. Additionally, both PIRs and PPRs focus on reporting activities at output level rather than assessing progress towards higher-order results and impacts, although this is not an uncommon problem. Additionally, it is not always clear how much of the reported progress is actually attributable to the project.

189. Until 2020, PPRs were being prepared in addition to the annual PIR, but the MTR was informed that from 2020, the annual PIR would cover the period from January-June. In the MTR's view, given the problems and many changes experienced by IFish, it would have been better to retain the six-monthly PPR, at least in 2020, especially as the PIR involves a much longer review process and sometimes only becomes available some weeks or months after the end of the reporting period. Additional, the PPR contains greater detail and links reporting to the annual workplan. The July-December 2020 PPR was also not available to the MTR in January 2021, even as a draft.

190. Additionally, the level of progress reported in the 2020 PIR and the July-December 2019 PPR did not always match the MTR's independent findings through its desk review, in-depth discussions with the PMU and stakeholder interviews. This may be partly due to lack of understanding of how progress is expected to be reported as well as language-related issues. But there is also a general lack of quality control by FAO and important sections of both the PIR and the PPR are not being used in ways that could to promote adaptive results management such as the sections on risk, environmental and social safeguards, adjustments to project strategy, gender mainstreaming and stakeholder engagement. For example, the

2020 PIR simply repeats the list of stakeholders named at the time of CEO endorsement with no information provided on progress, challenges and outcomes in relation to stakeholder engagement; and the section on gender mainstreaming was simply copied from the 2019 PIR without any updating, although the information did not apply to 2020.

191. Very recently, the project has started developing a Monitoring, Evaluation and Learning system (MEL) linked to the Results Framework and the project Annual Workplan (AWP). This includes developing an achievements database in Excel with links to both the AWP and evidence for each result. While this is a step in the right direction, it remains very focused on the activity and output level. More importantly, the project's Theory of Change needs to be finalized and its Results Framework revised before finalizing and implementing an MEL system. Additionally, the MTR noted that with the high turnover there has been considerable loss of institutional memory as effective systems have not been in place to capture project knowledge and lessons or to encourage learning and exchange within the PMU, both within and across components as well as between the normally field-based FOs and the Jakarta-based FOs. Despite this high turnover, there is no formal or structured induction of new staff through guided reading, meetings with key stakeholders and other methods, to provide them with a good overview of the project as a whole, beyond their specific area of responsibility, as well as with GEF, MMAF and FAO priorities, requirements and administrative processes. The MTR was particularly concerned to find that existing knowledge identified through the MTR's desk review of project documents and interviews is not being adequately reflected in project planning for proposed interventions in the demonstration sites.

192. In general, existing information does not appear to be well collated or organized and the PMU itself is not further codifying and distilling knowledge through its own analyses of information for internal learning, adaptive management and wider dissemination. For example, despite the considerable work undertaken Component 1, there is no report summarizing the findings and implications of the project's policy-related work to date and priorities for future work to sustain and build on existing results. This includes reports of the sector policy reviews and syntheses of the numerous reports generated by different Service Providers such as for the district spatial plan revisions or for eel aquaculture in Cilacap. This makes it very difficult for external audiences, and even for Indonesian stakeholders, to understand the significance of the project's work. During the stakeholder interviews, several respondents mentioned not understanding the relevance of the project's work on spatial plans or the connection of this work with Component 2.

193. Issues relating to M&E are discussed further in Section 4.2.2/Outcome 4.1 and Section 4.4.1.

Output 4.1.2: Midterm review and final evaluations carried out and reports available

194. The indicators for this output are identical to those for Output 4.1.1 with a single mid-term target: "mid-project evaluation recommendations implemented". Mid-term review recommendations clearly cannot already be implemented at mid-term before the review has been completed. End of project targets for this indicator ('Lessons learnt documented and shared' and '7 newsletters') look as though they belong to Output 4.1.3.

Output 4.1.3: Lessons learnt documented and shared through project dissemination plan and existing national mechanisms

195. There is no systematic documentation of lessons learnt or a dissemination plan. The MTR is slightly unclear if the targets for this output have been partly met in terms of newsletter production. According to the PIRs and information shared with the MTR, 2 newsletters were prepared in 2019, with content exclusively or mostly in English. According to stakeholder interviews, 7 newsletters were prepared but not distributed as they were not approved by MMAF due to quality issues. The first NC for Communications resigned in 2019. The new NC for Communications who joined the PMU in mid-September 2020 has been in the process of refreshing the newsletter, which is now only in Bahasa, and which the project hopes to relaunch in 2021. The primary target audience for the newsletter are the national and local IFish partners and distribution will be through email and WhatsApp. A draft covering the September-December 2020 period was shared with the MTR. This looks well designed with interesting content and will hopefully be released soon once it is approved by MMAF.

196. The other MTR target of having a project website to share results and wider information on policies and recommendations on critical inland aquatic ecosystems and fisheries has been approved but is still to be developed along with a Knowledge Management System (KMS). The project intends to develop the KMS through a Service Provider. However, given the close relationship between KMS and M&E, there needs to be very close oversight of this aspect by FAO and MMAF with appropriate technical inputs by partners with relevant expertise. Ideally the KMS should be developed after, or in parallel, with the development of the M&E system.

4.2.2 Progress towards outcomes (U)

Finding 6 With limited progress on many outputs (Finding 3), overall progress towards outcomes is also extremely delayed with very few mid-term targets achieved after 3.5 years of implementation.

197. The rating for individual outcomes under each project component is based on the mid-term target for the outcome where available or the MTR's assessment based on the end of project target.

4.2.2.1 Component 1: Inland aquatic biodiversity mainstreamed into resource development and management policy

198. The MTR's assessment of progress under Component 1 was guided by the following overarching questions:

- To what extent has 'critical knowledge' on inland aquatic biodiversity been mainstreamed into key sector policies and plans as a result of project interventions under Outcomes 1.1-1.4?
- To what extent are project interventions on mainstreaming inland aquatic biodiversity likely to lead to specific and measurable improvements in the conservation and sustainable use of inland aquatic ecosystems over time, including of the target project species and their habitats, in line with end of project Results Framework targets?

199. Detailed sub-questions based on the Evaluation Matrix (Annexes 4a & 4b) were used to assess progress under each Outcome through desk review and stakeholder interviews .

Outcome 1.1: Critical knowledge on the aquatic biodiversity of inland waters incorporated into sector policies and development plans (U)

Finding 7 There is limited progress towards Outcome 1.1 as measured by the Results Framework indicator. The mid-term target is to have 2,000 km^2 of *'critical inland aquatic ecosystems under sustainable management plans'*. The project has aimed to do this through revisions to five district spatial plans (the RTRWs) but this target has not been met in terms of either the coverage of critical (i.e. high conservation value) inland aquatic ecosystems or its sustainable management. Only the spatial plan for Kampar has been approved to date and most of the revisions proposed by the project relate to establishing hatcheries and restocking sites.

200. As explained earlier, the district RTRW or spatial plans are land use zonation plans that will not necessarily lead to improved land management in relation to the fisheries targeted by the project without further policy development and site-level planning. The original project design does not appear to have understood this as it treats the 'land management plan' as something that can be implemented in specific demonstration sites rather like an EAFM plan for a local fisheries. The complexity of decentralized planning processes in Indonesia has also not been taken into account, including the time needed to get revisions or new plans

approved, or the fact that plan periods and planning cycles vary between districts, levels of government and involve multiple stakeholders at every level. For example, the spatial plan period of different levels of government are 10, 15 and 25 years, for district, provincial and national spatial plans, respectively. Each administrative unit's spatial plans are subsequently integrated into its corresponding medium-term development framework plan, which in the case of districts is the RJPMD. The period of both the spatial and development plans varies between different levels of government, both vertically and horizontally, and thus the planning, implementation and revision cycles are also not synchronized across administrative units.

201. Additionally, the project itself has yet to adopt a clear definition of 'critical inland aquatic ecosystems' based on biodiversity values and to map these areas in the demonstration sites (see Outcome 3 below). Although the Project Document does not explicitly define what is meant by 'critical inland aquatic ecosystems', it does imply clearly what this means through numerous references to areas rich in unique biodiversity, such as peatlands and other wetlands with high levels of endemics and threatened species and/or areas that contain critical habitat for important fisheries of threatened species. The Project Document's interpretation of what constitutes a critical inland aquatic ecosystems is perhaps most clear in Table 4 on the Global Environment Benefits that will be generated through the project (Project Document, pp. 36-37).

Finding 8 A major gap under Outcome 1.1 is the lack of any systematic review and synthesis of the national and district-level policies, plans and legal frameworks of all sectors relevant to the effective management and sustainable use of inland aquatic resources and ecosystems, such as those of the Ministry of Environment and Forestry, Ministry of Agriculture, Ministry of Public Works and Housing and Ministry of Energy. Such a review and a gap analysis were planned in the Project Document but have yet to be undertaken by the project. Without these, IFish will be unable to effectively identify and evaluate different policy options for mainstreaming inland aquatic biodiversity and also miss potential synergies and complementarities with other key sectors, not just under this Outcome but across all project components. A systematic policy review, together with a clear analysis of the critical and strategic gaps that could be filled by IFish would also help to clarify the added 'incremental' value of the GEF's support.

202. The MTR's assessment of progress towards this outcome was partly hampered by the lack of any analysis by IFish of the project's work on the district spatial plans. Although Component 1 is the most advanced area of project implementation in terms of expenditure, with nearly 70% of the budget spent (Section 4.4.5/Table 7), there has been no analysis and synthesis of results to date and their implications for related project outcomes under Component 2 or systematic identification of next steps to consolidate and build on this work. The information made available to the MTR on this component in discussion and written form was extremely unclear. Despite spending quite some time trying to understand the significance of the project's proposed improvements to district spatial plans, including the only revisions approved by government up to December 2020 (i.e. for the Kampar RTRW), the MTR is unclear about the following points:

a) which proposed revisions (i.e. 'critical knowledge') have actually been accepted by local government and how these will lead to the improved protection and sustainable management of the target fisheries and critical inland aquatic ecosystems in Kampar (and in other districts if and when revisions are approved);

b) what additional steps if any are required to operationalize the changes to the spatial plans, for example through the associated Strategic Environmental Assessments (SEAs) and developments and strategic plans;

c) what if any further investments are required by IFish to ensure these steps are taken; and

d) the implications for project outcomes of the revisions proposed by IFish that were **not** accepted by government or where the deadline for accepting revisions was missed as in the case for Kapuas

203. Given all of the above, the MTR rating of Outcome 1.1 based solely on the Results Framework target is 'Unsatisfactory'.

Finding 9 There are some noteworthy examples of progress under Outcome 1.1 that are not currently captured by the outcome indicator. These include the recent MMAF Ministerial Decrees on inland Fishery Management Areas and the limited protection of eel. Although operationalizing these will require further investment and time, they are nevertheless potentially promising developments, provided there is systematic follow up to ensure their adoption and implementation at the local level.

204. It should be noted that the MTR target for Outcome 1.1 and Output 1.1.1 are almost identical. If the indicator and target for Outcome 1.1 had been different, the MTR's rating of Outcome 1.1 would probably have been Moderately Unsatisfactory given that IFish has supported the finalization of two potentially far-reaching MMAF ministerial decrees, both issued in 2020. The decree demarcating 14 inland Fishery Management Areas (FMAs/WPP) across Indonesia opens the door for establishing inland FMAs with governance structures and budgeted management plans over time as has happened in the marine sector. Similarly the decree for limited protection of eel is an essential component of sustainable management of the glass eel and adult capture fisheries. However, operationalizing these decrees will take many more steps and much more time. As fisheries management is the responsibility of local government, operationalizing both decrees will require their strong support and engagement, including complementary actions to ensure adoption through local regulation. In the case of the decree on limited protection of eel, incentives for compliance as well as monitoring and enforcement will also be needed.

205. While these policy achievements are noteworthy, the added value of the GEF is not always clear, particularly in the case of the new policy on inland FMAs/WPP, as this had already been under consideration for some time, inspired by experiences in the marine sector where FMAs/WPP were first developed. This is also true of the eel FMP/RPP discussed later (Outcome 1.4). While IFish has expedited the completion of both these policies by financing and facilitating these, the additional inputs delivered as a result of the GEF's support is

unclear. For example, it is unclear to what extent the project has helped to integrate international best practice into these new policies. FAO too has also not been involved in terms of providing any technical inputs despite its vast technical expertise.

206. Finally, in the MTR's view current Outcome 1.1 should be changed to an output and Output 1.1.2 should become the new Outcome 1.1, with some minor changes to its wording as suggested in Annex 7.

Outcome 1.2: Strengthened capacities of national and local environmental and fisheries professionals as well as local communities to address threats to inland aquatic ecosystems, including inland fisheries (U)

Finding 10 There has been very limited progress towards Outcome 1.2 due to a combination of factors including weaknesses in the original project design, changes in the implementation context and more emphasis being given to demonstrations on developing 'ex-situ' aquaculture than on strengthening the sustainability of inland capture fisheries and addressing threats through site-based measures. Service Providers commissioned to develop training materials did not deliver to the required standard, while existing FAO EAFM/EAA training materials have not been used. Site-based training was suspended in 2020 due to Covid-19. As a result, there has been virtually no training so far on addressing threats to inland aquatic ecosystems and fisheries through site-based EAFM/EAA or other integrated approaches.

Finding 11 Unless the project accelerates action to develop and implement site-based land management/EAFM plans, it will be difficult to achieve the end of project target for Outcome 1.2 of enhanced capacity of local communities and fisheries and environmental professionals to implement land management plans covering 60,000 ha of critical inland aquatic ecosystems. This is because the district spatial plans (RTRW-K) are not the same as the a site-based land management/ EAFM plans envisaged in the Project Document (see Finding 16).

207. It is debatable whether the mid-term target of '8 communities and 60 relevant professionals from different sectors trained' has been met. As noted earlier most training to date has been ad-hoc, of short duration, with limited coverage of topics, communities and sectors beyond fisheries (Section 4.2.1.2/Outputs 1.2.2 & 1.2.3). Training undertaken to date is unlikely to have lasting or wide impact. Various activities are underway that should eventually contribute to developing capacity to address threats to inland aquatic ecosystems, particularly among local and national policymakers, although details are still to be worked out. However, proposed training activities are not clearly linked to increasing local capacity to develop and implement site-based integrated land management or EAFM/EAA plans designed to increase the sustainability of the project's three target fisheries and their associated inland aquatic ecosystems and globally significant biodiversity. The latter is discussed further below under Outcome 1.4.

208. Additionally, as reported in the 2020 PIR, there have also been differences in perspective between the project partners on the purpose and content of the EAFM training module and other aspects relating to EAFM. MMAF has a long history of undertaking EAFM in the marine sector and has recently released its EAFM guidelines for inland waters in Bahasa. FAO too has considerable expertise in EAFM and EAA, including existing training modules.[32] It was beyond the scope of the MTR to explore the nature of the differences in approach on EAFM by the partners, particularly in the context of a remote MTR. However, demonstrating site-based EAFM and EAA approaches is central a part of the original project design as reflected in the Project Document. It is therefore important that any major differences in approach are clarified as this has major implications for the delivery of key project mid-term and end-of-project targets.

Outcome 1.3: Improved multi-ministry/agency communication and collaboration on management of inland aquatic ecosystems (U)

Finding 12 There has been very little national-level communication and collaboration between the fisheries sector and other relevant sectors on the management of inland aquatic ecosystems, although this is an integral part of the project's biodiversity mainstreaming strategy. This is a major gap since threats to inland aquatic ecosystems can only be effectively addressed through greater multisector cooperation. No formal multi-ministry coordination mechanism has been in place since 2018. There has been greater communication and collaboration at the district level, albeit without any formal coordination mechanism up to now, although the project hopes to establish district TWGs. Stronger engagement at the district level is probably due to the presence and active engagement by IFish Field Officers (FOs) in each district as well as the project's spatial plan-related work.

209. A national TWG bringing together the key sectors relevant to the management of inland aquatic ecosystems was established in 2018, but has not met again since its last meeting in September 2018. Therefore, the mid-term target of having bi-annual coordination and collaboration meetings has not been met. ToRs for re-establishing the TWG were under review by the NPC at the time of the MTR. Efforts are also underway to strengthen communication and collaboration at local level through the creation of district-level TWGs (see Section 4.2.1/Output 1.3.1).

210. In the interim, there has been ad hoc engagement by IFish with national ministries on a needs-basis linked to specific demonstration site activities. This has included interactions with MoEF to obtain permits to collect brood stock of arowana and *belida* and discussions with the Ministry of Public Works and Housing (PU) on the proposed eel path in Sukabumi. However, strong linkages have yet to be established with key national ministries with programmes and initiatives that are highly relevant to the project, such as MoEF, BAPPENAS and the Peatlands Restoration Agency (BRG), all of which are working on wetlands

[32] http://www.fao.org/apfic/training/eafm-inland/en/

conservation, restoration, climate change and related issues. The project has also not yet engaged with some of the leading research institutions and NGOs working in these closely related and highly relevant areas. Partnerships and stakeholder engagement are discussed further in Section 4.4.6.

211. There is also need to strengthen the indicators and targets for Outcome 1.3 and Output 1.3.1, including removing duplication and updating baselines. For example, neither the MTR, nor anyone in the PMU, including the NPM and the lead NC for Component 1, understand the relevance of the current indicator baseline for Outcome 1.3 for monitoring this Outcome. The latter states *"The Grand Design for Preserving Lake Ecosystems in Indonesia issued by the Ministry of Environment 2014 has provisions for provincial cross-sectoral documentation and monitoring of ecoregions but overall coordination needs strengthening."* The PMU was unable to locate this policy for the MTR. According to FAO, these may only available in hard copy.[33] The MTR could therefore not establish the relevance of this policy to the project.

Outcome 1.4: Improved biodiversity status of three key inland fish species (U)

Finding 13 There has been a lack of scientific and technical rigour in describing the taxonomy and conservation status of one of the three project target species since the project design phase up to the latest PIR of 2020. This species is referred to as **clown knife fish** (***Chitala chitala)*** in some parts of the GEF CEO endorsement document and the Project Document and described as threatened (e.g. Project Document p.1 & pp.36-37: Table 4). Elsewhere in the Project Document, the species is only referred to by its genus as *Chitala* sp. and 'clown knife fish' is used to refer to multiple *Chitala* species as if synonymous with *belida*, the Indonesian generic name for all *Chitala* and other featherback species (Executive Summary, p. 5, p.29, p.38); in one place the species is give as *Notopterus borneensis* (Annex 4, p.92). According to the PMU and other information sources, *Chitala chitala* does not occur in Kampar and the species targeted by the project may in fact be **Giant featherback** (***Chitala lopis),*** which however was declared extinct by IUCN in August 2019.[34] Authorities interviewed by the MTR confirmed that while the genus is definitely *Chitala*, it could be either *C. lopis* or *C. hypselonotus* and that further investigations are needed for a conclusive identification. Although the species in Kampar may still be *C. lopis*, these issues were never raised or clarified in the PIRs or PPRs or indeed in the Project Document.[35] To add to the confusion, both the 2020 PIR and the 2019 PPR refer to clown knife fish and giant featherback as if they are the same species.

[33] Ministry of Environment & Forestry of Republic Indonesia 2016: The Grand Design of Indonesian Lake Conservation and Rehabilitation;
Ministry of Environment of Republic Indonesia 2014: *Indonesian Lake Management: The* Indonesian Movement for Lakes Ecosystem Conservation and Rehabilitation;
Ministry of Environment of Republic Indonesia 2011 *Profile of 15 National Priority Lakes 2010-2014*

[34] https://www.iucnredlist.org/species/157719927/89815479#

[35] https://www.fishbase.se/summary/Chitala-chitala.html

Finding 14 The mid-term target has not been met and the project is extremely unlikely to achieve the end of project target of a 10% increase in stocks of eel and clown knife fish (whether *Chitala chitala* or another *Chitala/belida* species) in demonstration areas. Furthermore, the Fishery Management Plans (RPP) planned under Outcome 1.4 do not appear to be a suitable policy tool for promoting sustainable fisheries for two of the three target species, as *Chitala/belida* and Asian arowana are both legally protected. The local population status of different *Chitala* species and of arowana is also not known. The main alternative strategy to FMPs/RPP proposed for *Chitala/belida* and arowana are ex-situ aquaculture and wild restocking (see Finding 4). Apart from being untested[36], this strategy alone will not deliver the project's broader planned results on sustainable capture fisheries of these species and related biodiversity outcomes.

212. There are two mid-term targets for Outcome 1.4, neither of which is a particularly good measure of the indicator or the end of project target, one relating to the eel fisheries and one to the clown knife fisheries. The target of the first is an evaluation of the controlling systems for export of elvers. This activity has not started yet. The latter is an *'evaluation of fisheries management for clown knife fish'*. What this indicator actually means is unclear from the Results Framework, i.e. whether this is an activity that should have been undertaken by mid-term as an input to the FMP for clown knife fish planned under Output 1.4.1 or whether it is an evaluation of a completed FMP that has begun implementation. However, Outcome 1.4 is one of the most important outcomes for the project as it is the only outcome with a specific and measurable end of project biodiversity impact target. This is therefore a key indicator of project success in delivering biodiversity outcomes through strengthening the sustainability of inland capture fisheries.

213. Given the importance of Outcome 1.4 and the difficulties of using mid-term targets to assess progress, the MTR focused instead on assessing the likelihood of achieving the end of project target: "*Stocks of Indonesian eel and Clown knife fish increased by at least 10% in target areas in Java, Kalimantan and Sumatra.*" The MTR's assessment revealed several critical issues in relation to Outcome 1.4 that need to be urgently resolved.

214. The first is to confirm which species of *Chitala/belida* is being targeted by the project in Kampar, including its global conservation status so that appropriate project interventions can be designed. The taxonomic status of featherbacks in Indonesia is complex, with some disagreement on distribution and population status. It is generally assumed that there are at least 2 genera (*Notopterus* and *Chitala*) and 4 species. It is especially important for a GEF Biodiversity project to be scientifically rigorous about the species it is targeting. The PMU hopes to do this together with scientists from LIPI as soon as travel to the site becomes

[36] The technology and methods of belida aquaculture are still very new and remain to be successfully replicated in Kampar and scaled. Successful wild restocking also requires complementary measures to address other threats to the target species and their habitats.

possible. Second, if the species is indeed Giant Featherback or *C. lopis*, which is entirely possible[37], then this would mean the species is not extinct after all, which would be a significant finding that would also need to be followed up with IUCN.

215. Regardless of which species of *Chitala* is finally confirmed, it seems unlikely that an FMP will be a viable option since under current regulation all *belida* species are protected. In parallel therefore, the project still needs to identify a suitable alternative strategy for conserving not just the *belida*, but also the wider ecosystem and other globally important freshwater biodiversity. It is doubtful that the current proposed strategy of developing *belida* aquaculture to replace wild capture and to restock wild populations will be sufficient to achieve the end of project target for Outcome 1.4 of a 10% increase in the population of *belida* in the Kampar demonstration sites. *Belida* aquaculture is still in the relatively early stages of development and it remains to be seen how successful it will be and whether it can be scaled, i.e. how easily the technology can be transferred and adopted by local communities. There are many other unanswered questions, including to what extent *belida* aquaculture and restocking will reduce pressure on wild populations without additional measures to enforce regulations on *belida* fishing and to address threats to its habitat and the wider ecosystem.

216. Similar questions apply to the project strategy for the eel and arowana fisheries, which also focuses on aquaculture and restocking. It is unclear how this approach alone can deliver the end of project target for Outcome 1.4, assuming these could even be measured, which in the case of eel is likely to be impossible. While these indicators and targets may be unrealistic, it is clear that the underlying logic of Outcome 1.4 is that the improvements in eel and *belida* stocks are the result of improved management of 60,000 ha of critical inland ecosystems, achieved through the implementation of the FMPs and the land management/EAFM/EAA plans. If these outputs cannot be delivered, the question remains as to how the project can deliver improvements in the stocks of the target species and the related Global Environmental Benefits expected of a GEF biodiversity project.

217. Additionally, while Outcome 1.4 mentions the improved status of three key inland fish species, there are no indicators or targets relating to arowana. This immensely popular aquarium species, classed as globally threatened (Endangered) by IUCN, was reported as being very rare in the wild by MTR interviewees, mainly due to overexploitation, and even locally extinct in South Barito. There is, however, considerable captive breeding of arowana across Southeast Asia, including in Indonesia, for the ornamental fish trade. This has led to

37 http://repository.seafdec.org/bitstream/handle/20.500.12066/4813/molecular_techniqies_sustain_inland.pdf?sequence=1&isAllowed=y

other problems, including the mixing of strains as breeders seek new colourations, with mixed strains sometimes being released in the wild.[38]

218. Finally, it may be very difficult to measure changes in any of the target species populations within the project's remaining lifetime even if restocking is carried out, as no population and ecological baselines have been established in the demonstration sites. At the same time, a GEF biodiversity project requires some kind of biodiversity impact indicator and target to measure the outcome of the GEF investment. The project needs to give some serious consideration to how this requirement will be addressed.

4.2.2.2 Component 2: Demonstrations of conservation and sustainable use of inland aquatic biodiversity

Outcome 2.1: Rural communities pursue improved livelihoods through better fisheries production and conservation in 5 pilot areas including 12,385 households on 60,000 of wetland habitat (MU)

Finding 15 Although the mid-term target of having 5 operational project demonstration sites has been partly met, activities have been limited in most sites other than Cilacap and to some extent Sukabumi. More importantly, the planning and implementation of demonstration activities has not been informed by site-based socio-economic, gender or ecological assessments as envisaged in the Project Document. Without some major course corrections and improvements, it is very unlikely that most of the end of project targets for Outcome 2.1 will be achieved. Even in Cilacap, very few households are likely to be benefiting directly from the project as a result of sustained improvements in livelihoods through better fisheries production and conservation given the limited scale of demonstration activities to date and the problems encountered with eel aquaculture. Given this, it is likely to be very difficult to achieve the end of project target of 12,385 households benefiting directly from the project demonstration pilots, even with changes to current intervention strategies.

[38] https://www.researchgate.net/publication/309532112_Sustainable_aquaculture_of_Asian_arowana_-_A_review

Finding 16 A major gap under Outcome 2.1 is the lack of investment or plans to develop demonstrations on site-based integrated wetlands management using EAFM principles and tools, a key element of the original project design (see Finding 4). There is also a disconnect between Component 1 and Component 2 in terms of how to meaningfully translate the district spatial plans (Outcome 1.1) and FMPs (Outcome 1.4) into 'improved management' of 'critical inland aquatic ecosystems' at the local community level under Outcome 2.1 (see Finding 11). Demonstration activity planning and implementation to date have emphasised aquaculture through local fish farming cooperatives and in district Fisheries Office facilities with plans for scaling fish farming together with wild restocking. Some preliminary work has been undertaken to develop interventions on revitalizing *beje* fisheries systems in the Kalimantan sites, although the extent to which these are truly 'traditional' or lend themselves to capture fisheries management of arowana, or to conservation management generally, is unclear.

Finding 17 The Project Document's approach to EAFM in inland waters appears to differ from Indonesia's approach, which draws on its experiences from the marine sector. The former involves site-level participatory assessments and fisheries management planning, while the latter appears to begin with more macro-level assessments of the EAFM potential of different areas using a set of environmental, social and economic indicators to assign scores. These differences, which have caused implementation challenges, have not been explained and clarified in project PIRs and PPRs, although the development and implementation of EAFM/EAA plans was an integral part of the original project design for demonstration activities under Outcome 2.1 (also see Findings 4 and 11).

219. As a GEF mainstreaming project targeting the fisheries sector, IFish was designed to deliver its overarching biodiversity objective by promoting sustainable inland fisheries. The basic project logic is that to improve the sustainability of inland capture fisheries, the major threats to these fisheries must be addressed or at least reduced and incentives for their sustainable use also implemented; and that implementing these strategies would naturally result in the improved protection and management of the wider inland aquatic ecosystem and its biodiversity and the improved food security and livelihoods of thousands of local people.

220. Three ecologically distinct areas were selected for the demonstrations in order to a) increase the range of globally significant diversity that would potentially be better managed, including the number of endemics and threatened species; and b) to test a range of strategies across different types of inland capture fisheries that could potentially be replicated to achieve scaling and/or lead to other transformational change in the inland fisheries sector, i.e. the catalytic effect that the GEF would like to see delivered through its financing.

Table 6 Total numbers of people and households involved in different fisheries sector activities in the project demonstration sites

	District	Fishers	Fish Farmers	Collectors	Processors	Marketing	Household
1	Kapuas	3,349	4,196	49	40	82	1,241
2	South Barito	4,514	3,798	30	135	20	Not included
3	Kampar	3,202	7,639	36	248	592	14,145
4	Cilacap	895	118	19	3	3	828
5	Sukabumi	985	1	25	3	3	520
	Total	**12,945**	**15,752**	**159**	**429**	**700**	**16,734**

Source: Final Report on Existing Business Opportunities Identification. IFish Project Report. FAO. Not dated.

221. Fisheries Office data for the five demonstration districts and field observations from a project study (Table 6) suggest that it will be difficult to meet the current end of project target of over 12,000 households with improved livelihoods as a result of better fisheries production and conservation over 60,000 ha of wetlands habitat. This is partly because project interventions are targeting much smaller areas and numbers of beneficiaries in each demonstration district and the total number of households engaged in fishing and fish farming in these areas is relatively small compared to the district totals. Fishing and fish farming are also not necessarily the primary source of livelihood in project demonstration areas. As already described in Section 4.2.1, project implementation has been greatly delayed with limited progress on many outputs. Perhaps even more importantly, it is unclear how most existing demonstration interventions will lead to a sufficient reduction in threats to critical inland aquatic ecosystems to result in sustainable fisheries of the target species and improved status of freshwater biodiversity.

222. Major gaps in the design and implementation of demonstration activities include the lack of any ecological and socio-economic baselines to inform not just a theory of change for each target fisheries and the design of specific interventions, but also implementation and impact monitoring and adaptive management. Although activities are being implemented in line with a workplan based on the Project Document and Results Framework, both these (i.e. the original project design) have some fundamental flaws as discussed earlier. The Project Document also lacks context-specific up-to-date information, particularly on the demonstration sites and target species and fisheries. These issues have been further compounded by implementation delays and turnover in the PMU, leading to demonstration activities being implemented in a fragmented way, and without proper sequencing and integration with other related activities. Without ecological and socio-economic assessments and the establishment of baselines for key Results Framework indicators, there

are no objective ways of selecting project beneficiaries (see Section 4.5) or of monitoring the impact of project interventions on local food security, livelihoods and biodiversity.

223. Implementation and sustainability risks have not been systematically evaluated or mitigated where needed, as in the case of the eel aquaculture demonstration in Cilacap, where wastewater from the earth ponds was being discharged into the river at the end of each cycle to clean and dry the ponds and remove parasites. Furthermore, the predominant source of local livelihoods in and around the project demonstration villages in Cilacap is high-input rice cultivation which pollutes the local water courses. Most eel farmers, fishers and collectors, are primarily rice farmers who supplement their income through eel-related activities. However, there are no project activities to raise local awareness on agricultural pollution or to link project interventions on eel with changes in the rice cultivation practices of beneficiaries.

224. There are also risks associated with the project's restocking plans if existing threats to the target fisheries such as species' overexploitation and habitat degradation are not addressed in parallel. Additionally, several interviewees mentioned that the aquaculture technology for both eel and *belida* are by no means fully developed yet. The PMU is also considering using biofloc technology to increase the survival rate of glass eel to elver stage. However, there are potential risks associated with this technology, which should be explicitly considered along with mitigation measures and a critical assessment of the potential for biodiversity and livelihood impact through replication and long-term sustainability.[39] In the case of arowana, which is already intensively bred in captivity for the aquarium trade, the precise added value of any project interventions involving aquaculture and restocking is unclear. Earlier plans and PIR reporting make reference to the development of protected areas for certain fish species including arowana and co-management with local communities. Again, the theory of change for these proposed interventions should be clarified and an integrated plan developed.

225. The project is considering steps to remove *belida* from its current protected status and a scientific text for this purpose, the first step in the process, has been started. A blanket ban that covers all species of *belida*, including ones of least concern, may not be necessary, particularly given the cultural importance of *belida* as a traditional food (rather than for its food security value) and government interest in culturing the species. However, if this is being done as part of GEF project aimed at conserving highly threatened inland aquatic ecosystems and biodiversity, it is vitally important that any proposal to change the current legislation is based on sound evidence on the population status of different featherback species, including population trends, and also accompanied by significant measures to ensure improved management of the capture fisheries and the surrounding inland aquatic ecosystem and its biodiversity.

[39] https://thefishsite.com/articles/the-pros-and-cons-of-biofloc

226. Such an integrated approach to site-based planning and management of inland aquatic ecosystems and biodiversity, which was fundamental to the original project design, is currently lacking. This constitutes a serious gap under Outcome 2.1 as the Project Document indicates clearly that demonstrations on integrated wetlands management and sustainable use are central to the project strategy to promote sustainable inland fisheries and achieve various area-based mid-term and end of project targets (Section 4.2.1.2). Demonstrations on integrated wetlands management are also an important part of the original causal logic between Outcome 2.1 and Outcomes 1.1, 1.2 and 1.4. Additionally, it is important to note that the GEF's original review of the project concept (i.e. the PIF) included the following comment: "*Please bear in mind that GEF projects support activities on fisheries with the objective to reduce/ alleviate all impact on biodiversity and to improve livelihoods.*" .

227. Although the original project plan of implementing the spatial plans and FMPs in the demonstration sites was clearly not feasible, the project has not given sufficient consideration to what can be done instead of these to deliver improved site-based management of inland capture fisheries and aquatic ecosystems beyond aquaculture and restocking. Yet it is clear that a wider range of complementary interventions are needed in order to change both individual behaviour and sector policy to address key threats and improve the integrated management and sustainable use of inland aquatic ecosystems in the project target areas. For example, the project's fisheries policy work and aquaculture interventions on eel and even efforts to introduce eelpaths will ultimately fail unless other key threats, such as pollution from a variety of sources, sedimentation and loss of connectivity along the eel's migration route are also addressed.

228. As mentioned earlier, the project is considering demonstrations on *lubuk larangan* in Kampar and on revitalization of *beje* fisheries in Central Kalimantan. However, neither of these approaches will necessarily lead to replicable models of integrated wetlands management unless the design of interventions is based on a theory of change, which in turn is grounded in a sound understanding of the local ecology, socio-economic context and political economy. Proposed interventions on *lubuk larangan* in Kampar and to revitalize *beje* fisheries in Kalimantan would need to be based on such an understanding and be part of an integrated suite of measures to increase the likelihood that these will actually lead to the desired end result and prove sustainable. Some of the complexities involved in the case of *beje* are discussed further below.

Project plans on the revitalization of *beje* fisheries in Kapuas and South Barito Districts

229. *Beje* are a type of traditional fisheries in peatland areas, used by the Dayak communities, Banjar and potentially others. A *beje* is a pond or ditch located between swampy areas and the main river that acts as a fish trap when water overflows from the river during the rainy season. Fish breed and grow in the *beje* and are harvested in the dry season. *Beje* fisheries have declined in many parts of Kalimantan as their productivity has been severely impacted by changes in hydrology due to peatlands drainage and conversion to rice, oil palm and

other crops. In some areas, however, these are still an important source of income and food security for local communities.

230. The original project design focuses on demonstrating sustainable *beje* fisheries in peatlands, with a focus on arowana and clown knife fish. The Project Document suggests that this will generate additional environmental benefits as the *beje* will act as a buffer for biodiversity-rich peatland forests, by keeping the peat wet and helping slow the spread of fires. Proposed activities to strengthen the management and sustainability of these fisheries include aquaculture and restocking along with monitoring of stocks, fish catch, mortalities and environmental variables. Significantly, the Project Document also states: *"The development of a local integrated management system is also essential and this will be done using the tools offered through an ecosystem approach to fisheries management (EAFM) and ecosystem approach to aquaculture (EAA)."*

231. Most MTR interviewees supported interventions to revitalize the traditional *beje* fisheries, which if carefully planned and managed appear to have the potential to benefit people, biodiversity and the peatlands. However, both interviewees and the MTR's desk review highlighted that there are also socio-economic and ecological risks that must be carefully assessed and managed or mitigated. In terms of the potential ecological benefits and increased productivity, much depends on the siting, design and management of the *beje*, including the total number and area of *beje* in a particular location. For instance, locating too many *beje* in low-lying areas can impact fish reproduction and recruitment. There is also a risk that in the dry season, communities will harvest all the fish or that they may set fire to clear vegetation around *beje*. The location of the *beje* is particularly critical as blackwater fish and whitewater fish have different reproductive strategies: the former spend most of their time in the same area with very limited migration, while the latter only enter smaller tributaries to spawn before returning to the main river. As with the fisheries in the other demonstration sites, there are also threats to local habitats and the wider ecosystem arising from the surrounding land uses and related hydrological changes, pollution and other factors. For example, pesticide use in oil palm plantations is known to be particularly harmful to fish reproduction.

232. The type of *beje* targeted for project interventions, i.e. whether 'natural' or artificial, also has different implications. Project pre-assessments of *beje* in Central Kalimantan, which included field visits and consultations with local academic institutions, found that 'natural' *beje* are smaller and not privately owned.[40] These are accessible to every member of the village during the harvest season, while the larger 'artificial' *beje* are privately owned, generally by more affluent households.[41] There is also variation in the numbers of *beje* owned by

[40] PMU Report. *Beje* Pre-assessment in Palangka Raya and Banjarmasin, 2019. Data on *Beje* Owners of Batilap Village, South Barito.

[41] 'Natural' *beje* are reported to be small ponds around 2 – 3 square meters in size of a relatively shallow depth located in swamp areas near rivers that are flooded during the wet season. These *beje* are not owned by specific person/family and accessible to every village member during the harvest period. It is not

individual households. Stakeholders interviewed by the MTR also confirmed that artificial *beje* are larger, generally owned by wealthier people and require higher inputs for management. Data shared with the MTR for Batilap Village in South Barito shows that this ranges from 1 *beje* per owner to up to 40, although the average size of each person's *beje* is not given, nor any details of how many were natural or artificial.

233. The MTR understands that the project plans to work with artificial *beje* owners, despite the project pre-assessment stating this would result in benefiting the more affluent members of the local community. One expert interviewed by the MTR also expressed concern that artificial *beje* could attract more outsiders to an area to work as labour for managing and harvesting fish for larger *beje* owners, particularly with rising unemployment due to Covid. The project *beje* pre-assessment also raised questions about the likely environmental benefit of *beje* revitalization and proposed alternatives such as canal blocking, which is being undertaken by the Peatlands Restoration Agency (BRG), Wetlands International, SEAFDEC and others. Additionally, a key expert interviewed by the MTR was more in favour of natural *beje* development as peatlands fish are adapted to these.

234. A draft Peatlands Strategy developed for the project in 2019 by an FAO consultant outlines various options for *beje* development, but stresses the need for a clear intervention strategy based on sound data. Amongst other things, the report states the follow: "*Besides assessing the number of Beje and baseline production (and value) of Beje fisheries, it is important to consider establishing a socio-economic baseline as well as implement social mapping*[42] *to clarify internal relationships in and between communities. This will assist in understanding the community dynamics to better [be] able to appraise who will benefit from any proposed activities. This information will be used to select potential pilot Beje in different areas (based on ownership and environmental parameters), while also taking into consideration different socio-economic status, ethnicity and gender. Access to loans or existing wealth (or status within the village) are important, as we shouldn't disturb the existing relationships within communities or give preferential treatment to some groups over others*."

235. While the 2019 pre-assessment was a preliminary one and the draft Peatlands strategy never finalized, the issues and risks identified in these two project documents have not been addressed in recent (late 2020) draft ToRs for *beje* development. The version seen by the MTR did not include a clear project intervention strategy explaining how proposed activities will lead to sustainable *beje* fisheries, what specific livelihood and biodiversity benefits will

entirely clear to the MTR if these are truly natural or if all or some are man-made but of a smaller and simpler construction. Artificial *Beje* are generally rectangular in shape and 2 meters in depth In some villages. Some are quite large in size, up to 150 square meters and built with excavators and other heavy equipment.

[42] A visual method of showing the relative location of households. and the distribution of different types of people (such as male, female, adult, child, landed, landless, literate, and illiterate) together with the social structure and. institutions of an area.

be generated, how beneficiaries will be selected, or how successful interventions will be further replicated and sustained.

236. It is critically important that the further design and implementation of interventions on *beje* (and indeed all demonstration site activities) are informed by adequate ecological, socio-economic and livelihoods data, including considerations of gender, resource tenure and local wealth and power inequalities. All external stakeholders interviewed during the MTR with knowledge about *beje* such as Fisheries Office staff, researchers and practitioners were agreed that any efforts to revitalize and develop *beje* should be based on sound local data, technical experience and community consultations. Similar points were also made at the Expert Meeting organized by the project in September 2020. It is also vital that the project clarifies how socio-economic status, ethnicity, gender and any other inequalities are being considered in beneficiary selection in line with FAO and GEF policies and requirements (see Section 4.5). A comparative review of traditional and modern *beje* management practices might also be helpful to identify best practices and where improvements are needed.

237. Additionally, the implications of working on *beje* revitalization in very different habitats in Kapuas and South Barito need to clarified. In Kapuas, the target villages Dadahup and Tambak Bajai are apparently surrounded by oil palm and the entire area's hydrology has been impacted by the former Mega Rice Project. Strategies for revitalizing *beje* in these villages - and related risks- will likely differ from those for target villages in South Barito such as Batilap and Mangkatip, which are located in more remote areas with better habitat quality and more limited employment opportunities, and where local communities still have a high dependence on *beje* fisheries.

238. Finally it should be remembered that there are innumerable agencies, researchers, NGOs and civil society organizations working on different aspects of socio-economic development and sustainable natural resource management across Kalimantan, using different strategies and mechanisms. For example, a number of NGOs and others have been working with communities across Indonesia to promote sustainable land and natural resource management through the village-level development planning and budgeting processes under Indonesia's Village Law.[43] The introduction of the Village Development Funds in 2015 has created further opportunities to work with local communities to meet their economic priorities and also advance sustainable development goals.[44] Several interviewees flagged the importance of collaborating and coordinating with KLHK (i.e. the local Environment and Forests Department of MoEF), the Peatlands Restoration Agency/BRG and Wetlands International amongst others.

[43] https://wwf.panda.org/wwf_news/successes/?346816/Planning-for-Forests-in-Indonesian-Villages

[44] https://www.climatepolicyinitiative.org/publication/indonesias-village-fund-an-important-lever-for-better-land-use-and-economic-growth-at-the-local-level/

Outcome 2.2: Improved capacity for conservation and market access developed for key inland fishery resources through fishery value chain analysis of two eel fisheries (MS)

Finding 18 The mid-term target has not been met and overall progress towards this outcome has been slow as the eel value chain analyses have not been completed. However, preliminary work has been undertaken and end of project targets could still be met with some adjustments and a clearer strategy on locally appropriate market-based strategies to promote sustainability of the eel fisheries in Cilacap and Sukabumi.

239. Given there was no lead for Component 2 for nearly 6 months and the other delays and implementation challenges (see Section 4.4.2), it is not surprising that progress under Outcome 2.2 has been slow. Despite not meeting the mid-term target, there has been some good work by the project under this outcome. The eel fisheries in Sukabumi and Cilacap are centred on capture of young eel life stages i.e. glass eel and elver, as adult eel fishing is not a major economic activity but more of an occasional activity. There is a good general understanding of the local eel supply chain in both districts, including an initial estimate of the number of actors involved and the major points where value accrues to different key actors along the chain. There are also some limited and very preliminary figures on the value accrued at different points. A more comprehensive supply chain analysis and a value chain analysis still need to be completed, which the project plans to do in 2021.

240. The Project Document states that the project will target the eel fisheries on the Serayu River in Cilacap and the Pelabuhan catchment in Sukabumi, although the eel migration extends across several rivers in Cilacap. This may be because the Serayu in Cilacap is an important source for glass eel and elver in addition to the Sukabumi source. Current project sites are not on the Serayu River, but this may not matter given the characteristics of the local eel fisheries and trade in eel and eel products. More importantly, the planned eel supply chain and value chain analyses should ideally cover the entire chain from supply to demand, including wild capture, eel farming, domestic sales and export of fattened eel and eel products. As the market for eel is currently small, with relatively few stages in the local supply chain, this should be possible, and undertaken, once IFish has confirmed that doing this would be both useful and feasible based on its Theory of Change for the targeted eel fisheries. Additionally, the Results Framework should be adjusted to clearly indicate where the project is working on eel in Cilacap and Sukabumi i.e. if the project is not working on eel fisheries in the Serayu River and the Pelabuhan catchment the RF should indicate clearly where it is working, clarify the nature of the eel fisheries, and also report on these things clearly in the PIRs, PPRs and other project reports.

Figure 3 Eel supply chain in Sukabumi[45]

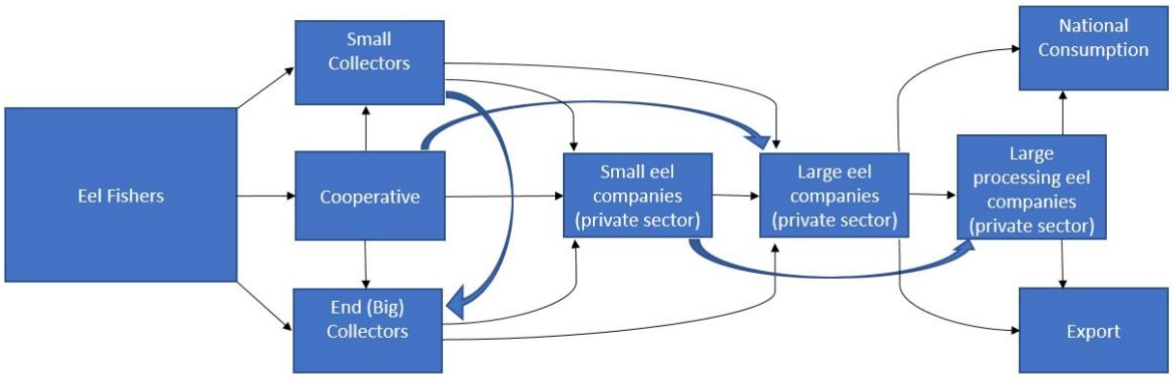
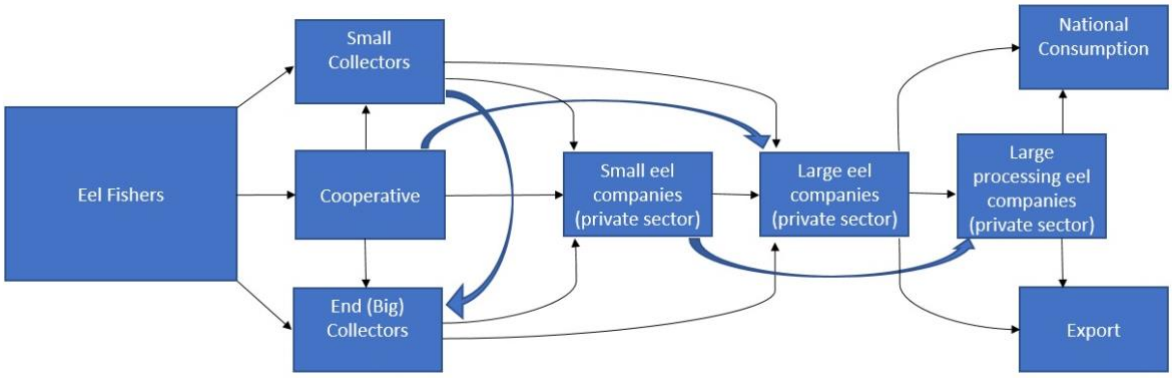


Figure 4 Eel supply chain in Cilacap



241. A review of certification and eco-labelling was prepared for IFish in 2019, exploring the opportunities and limitations of different types of certification and eco-labels for eel fisheries in Cilacap and Sukabumi, including the Marine Stewardship Council (MSC) standard and the Aquaculture Stewardship Council (ASC) standard.[46] The report concludes that given the complexity and costs of certification and eco-labelling, different approaches are necessary for larger enterprises, especially those involved in eel culture and trade, and for smaller-scale operations. For the former, this could involve a mandatory licensing system based on

[45] Both Figures 3 & 4 are from the Final Report on Existing Business Opportunities Identification. IFish Project Report. FAO. Not dated.

[46] Review of International Certification And Ecolabelling. Limitations and opportunities and the way forward for certification for eel fisheries on Serayu River and Pelabuhan Ratu catchments in Cilacap and Sukabumi Districts, Indonesia. Report prepared for the IFish Project. T. Visser & M.K.Idris. FAO, 2019.

national and potentially international standards to promote more sustainable operations and practices. For the latter, it may be more effective to promote the adoption and implementation of small scale, local initiatives to promote wider awareness about sustainability issues related to eel and its habitat or to create sustainably produced local products, which if successful, could reach wider markets through national or international fair-trade schemes. Additionally, as noted earlier, there is no ASC standard available for eel. However, IFish has decided not to pursue the development of the Standar Nasional Indonesia (SNI) for glass eel and elver collection and trade and eel fattening (see Section 4.2.1.2/Outputs 2.2.2-2.2.3).

242. The review conclusions also include the following points, which are important for the project to keep in mind as it develops this work further:

- *Practical implementation of certification schemes for eel fisheries, culture and trade need the support from both national and local governments;*
- *Schemes need to be set up together with stakeholders and on a voluntary basis;*
- *Unless, a clear added value or advantage can be established uptake is expected to be limited;*
- *Practical implementation of many of the eco-labels is hampered by cost, complexity and trust;*
- *Few International certification standards are suitable for small-scale producers; and*
- *There is only weak evidence on the value of certification to promote sustainable production and food systems.*

243. Understanding the market for eel is thus critical to determine whether certification and eco-labelling will generate sufficient benefits to incentivize and allow eel farmers and fishers to adopt these costly systems. There is also the risk of greater international and national regulation if eel becomes more threatened in the wild and its current status is changed from Near Threatened for *A. biocolor* to Vulnerable or Endangered, or from Least Concern for *A. marmorata* to a higher threat status.[47] Specifically, for glass eel and elver fisheries, the report notes that "*a combination of compulsory (national and local regulations) and voluntary (self-regulation in community groups, may assist in achieving more lasting benefits and contribute to essential components in any certification scheme, traceability.*" The report emphasizes that the approaches that are finally selected by the project should be based on the findings of the planned eel supply and value chains analyses.

244. Meanwhile, IFish has been building on complementary work by others, particularly by WWF Indonesia, which has completed pre-assessments of the glass eel fishery in Sukabumi. These have shown that much more work is needed before any eel fishery in Indonesia will be ready for MSC certification. One of the key principles of the MSC standard is to establish the health

[47] These are the two species reported from Cilacap in project documents. This should be confirmed.

of the wild eel stock. This has been assessed to be a single population covering a vast area. The stock status is not known and will be difficult and costly to establish. WWF is currently preparing a glass eel Fisheries Improvement Plan and Action Plan to begin working towards eventual certification as eel is one of the species in WWF's Seafood Savers Programme.[48] WWF is working with producers, retailers and financial institutions involved in the seafood industry through this programme. IFish itself has had relatively little engagement with the private sector so far, although this is mentioned in the Project Document, and this could be an area to explore further in the remainder of the project. However, it will be important for IFish to clarify the incremental (additional) value of the project's proposed activities under Outcome 2.2 in relation to WWF Indonesia's work.

4.2.2.3 Component 3: Monitoring and assessment of inland aquatic biodiversity

Outcome 3.1: Capacity to assess and monitor inland aquatic biodiversity improved at national level and at local levels in Kalimantan, Java and Sumatra (MS)

Finding 19 The mid-term target of mapping the inland aquatic biodiversity of the project area in Kalimantan and Java has not been met and is a major gap. The development of integrated socio-economic and conservation indicators is also delayed and this will impact delivery of other planned results. However, the on-going development of IIFGIS, which has accelerated in 2020, is noteworthy. This has allowed IFish to map certain aspects of inland aquatic ecosystems in the project districts, although an explicit agreed definition is needed of the term 'critical inland aquatic ecosystem' that aligns with being a GEF biodiversity project and the Project Document's focus on 'high conservation value ecosystems'. An important question to resolve is that of access to IIFGIS data once the project ends. Greater attention also needs to be given to meeting local priorities and capacity needs in relation to assessing and monitoring inland aquatic biodiversity and increasing the sustainability of inland fisheries through greater community participation in mapping and monitoring local inland aquatic resources and biodiversity.

245. Contrary to what is reported in the 2020 PIR, IFish has not yet developed indicators of biodiversity status or mapped the inland aquatic biodiversity of the project areas. This work has been further delayed by the Covid-19 pandemic. There is therefore no integration of thematic biodiversity maps into development planning or regional spatial plans as also reported in the 2020 PIR. However, there has been good progress in 2020 on mapping and analysing the extent of inland aquatic ecosystems in the project districts through the development of IIFGIS. The total extent of inland natural and artificial wetlands in different broad categories in the target project districts has been calculated based on an analysis of annual KLHK (MoEF) terrestrial maps, which are used as baseline maps for IIFGIS. Additionally, by using time series remote sensing data, the project is able to demonstrate the dynamic nature of wetlands, which vary in their extent both seasonally and between

[48] http://www.seafoodsavers.org, https://d2d2tb15kqhejt.cloudfront.net/downloads/09_seafood_savers.pdf

years, showing contraction and expansion of a swamp areas. These analyses still needs to be ground-truthed in the project sites along with biodiversity surveys, which have been greatly delayed.

246. If developed and used as envisaged in the Project Document (p. 34 & 39), IIFGIS should result in a comprehensive information system that allows inland aquatic ecosystems, biodiversity and fisheries to be assessed and monitored over time and space, providing valuable information to inform policy and management of inland fisheries and the wider ecosystem. By integrating relevant social, economic and environmental data, IIFGIS has the potential to be a valuable tool for decision-makers for the planning and management of inland fisheries, aquatic ecosystems and biodiversity in Indonesia, if designed properly, and with continued investment in its update and management after the project ends.

247. The delays to planned biodiversity and other ecological assessments have meant that the indicators, baselines and targets for Outcome 3.1 have not been refined and confirmed yet (Annex 7). Appropriate technical expertise should be obtained to ensure that the biodiversity conservation indicators that are to be developed will be able to measure the types of impact that will be expected from a GEF biodiversity project on sustainable fisheries and responsible aquaculture. As per the Project Document, these indicators are also supposed to integrate information from the socio-economic assessments so that they can be used to '*evaluate all demonstration activities for their conservation value as well as livelihood outcomes in terms of food security, nutrition, income and impacts on gender and labour.'* While this may be a little overambitious, practical biodiversity and socio-economic indicators are needed to assess project impacts in the demonstration areas.

248. Furthermore, as discussed earlier the project has yet to adopt an agreed definition of 'critical inland aquatic ecosystem' or 'critical wetlands (see Section 4.2.2.1/Outcome 1.1 and the expected GEBs outlined in the Project Document pp. 36-37). This is also relevant to Outcome 3.1 as the mapping of these areas to assess progress against various Results Framework targets is done through IIFGIS. Meanwhile reporting in the PIR continues to use these terms without defining them.

249. If the above limitations are addressed, then at least two of the three current end of project targets for Outcome 3.1 are achievable. With regard to IIFGIS, the project is rightly keen to ensure that it meets the needs and priorities of MMAF. For example, a tool to support EAFM assessment has been included at the request of MMAF. More work is needed on the technical aspects of IIFGIS in order to ensure that it fulfils the different aspects of its planned purpose and continues to meet the needs of MMAF and other important stakeholders, including the Government of Indonesia's policy objectives and priorities in other areas such as climate change and biodiversity. There is also need to clarify the terms and mechanisms for public access to IIFGIS data once the project has.

250. The value of the end of project target on reducing the proportion of unidentified fish catch in national reporting to 30% needs to be clarified and confirmed. This target is linked to the

species guide (Output 3.1.1 & Annex 7), which as noted earlier is largely based on old data and only includes species found in the project areas (Section 4.2.1.3). Given that a large number of inland species are apparently restricted to particular river basins, it is unclear to what extent the guide can be used by Fisheries Offices in other districts. Statistics on inland fisheries catch are also often unreliable as a large portion of the catch may not be recorded. Moreover, the MTR was informed that the actual target of 70% reported to the species level is already being met nationally. Therefore the added value of the IFish guide for the original purpose identified in the Project Document is unclear, although it may have potential to be used in other ways, particularly if its design and content are further adjusted. This aspect of the guide's purpose and the related end of project target need to be clarified and amended in the Results Framework and PIR reporting.

251. Finally, as also discussed previously, capacity development on biodiversity assessment and monitoring is delayed, particularly at the local level (Section 4.2.1.3/Output 3.1.3). Work on this area should be accelerated in 2021, but will also need other preparatory work to be completed first. Greater emphasis is needed on how relevant lasting capacity to monitor inland aquatic biodiversity can be developed at district-level as much of the focus to date has been on national-level monitoring.

4.2.2.4 Component 4: M&E and Adaptive Learning (HU)

Outcome 4.1: Project implementation based on adaptive results-based management and sharing of best practices

Finding 20 The project has lacked a proper M&E system and mechanisms to promote adaptive results-based management, including internal learning within the PMU and knowledge management and sharing. However, the new NPM is fully aware of the need for an effective M&E system, including lessons learning, knowledge management and effective communication. Efforts have been underway to develop a Monitoring, Evaluation and Learning system since the last quarter of 2020. The PMU has relatively limited experience of GEF M&E processes or of adaptive results-based management. Planned and budgeted inputs for Year 2 from an international M&E expert have not been used.

252. The absence of an effective M&E system to support adaptive results-based management is one of the project's biggest weaknesses. Many of the original Results Framework indicators and targets were not SMART and baselines were either unsuitable or incomplete. Indeed, even the indicators and targets for Outcome 4 are weak and in need of revision (see Section 4.2.1.4). Although the Project Document clearly states that a detailed M&E plan building on the Results Framework would be developed during project inception and that this would include social, economic and ecological variable and participatory monitoring (e.g. pp 40-41), no such system has been developed. Indicators and targets were not reviewed or refined during the early implementation period as also planned in the Project Document and baselines were also not reviewed and completed, particularly for socio-economic and ecological indicators.

253. Instead implementation monitoring and management has focused on activities and outputs based on Annual Workplans (AWPs), without much critical discussion of whether and how these will actually lead to the planned higher-level results. The project has continued to try to report against the Results Framework despite many indicators being unclear and/or unsuitable, missing baselines, and unrealistic, inappropriate and/or overambitious targets. Unfortunately, the PIRs and PPRs have not been used effectively as an adaptive results-management tool, although had these been reviewed more critically, this might have prompted a formal re-examination of the Results Framework. Instead, as has been frequently mentioned already, reporting in PIRs and PPRs is often unclear, misleading, incomplete and/or inaccurate (Section 4.2.1.4 & Annex 7).

254. Another essential element of any effective M&E system designed for adaptive results-based management is risk assessment and monitoring. Regular risk monitoring can help identify any changes to project design or risk mitigation measures needed to secure the delivery and sustainability of planned results. This too has not been undertaken systematically or given sufficient consideration, including in the PIR, which has a dedicated section on risk (also see Sections 4.5 & 4.6). In practice, changes have been made during the course of project implementation due to project design flaws and other obstacles, changes in context and other reasons. However, most such changes have not been clearly documented in the PIR, explaining why they were necessary and the implications for project outcomes.

255. A new M&E plan system is under development but this is still focused on the activity and output level linked to the AWP (see Section 4.2.1.4). True adaptive results-based management is unlikely without an overhaul of the existing Results Framework based on a revised Theory of Change (see Annexes 6 & 7). As highlighted previously, there are some important areas of the original project strategy that clearly need to be adjusted, such as what will replace the land management plans/spatial plans developed under Component 1 that were to be implemented together with the local communities to promote integrated wetlands management and sustainable fisheries in the demonstration sites. There is also the critical issue of what will replace the FMPs/RPP for *belida* and arowana in order to promote sustainability of these fisheries. For example, should these species be replaced by other species or a different type of strategy for ensuring sustainable use of an assemblage of species as could potentially be done in the *beje* demonstrations?

256. The new NPM fully recognizes the importance of having strong M&E and of improving learning and exchange within the PMU. But given that most IFish staff have relatively little experience of GEF M&E requirements, including adaptive results-based management, the PMU should also be provided with training and guidance on both these things, including on how to improve the quality of reporting and other project documents. Having to report in English places an additional burden on the PMU and also makes project reports less accessible to most local stakeholders. It is difficult to know how this can be overcome, especially for the PIRs and PPRs, but a first step would be to clarify and greatly simplify the Results Framework As reporting primarily in English acts as a barrier for many stakeholders, options for addressing this merit further consideration (see Section 4.4.3 and Section 7).

257. Finally, it was also apparent through the MTR's desk review and interviews that there is both loss of institutional memory and insufficient horizontal and vertical learning and exchange within the PMU, i.e. both between the different components and between the usually site-based FOs and the Jakarta-based NCs. The MTR did not assess how documents are currently stored and shared. But some of the most useful information, including End of Assignment Reports, lessons learned documents and other important reports only became known to the MTR during interviews. These were kindly made available by individual interviewees. However, all of these should have been part of the MTR's original information package. Additionally, and as should also be apparent from the preceding sections, it was clear that existing knowledge and lessons are not always being used to guide the development of project activities. This is probably due to a combination of factors including high turnover within the PMU, the lack of adequate induction for new staff, and not having a knowledge management system.

4.2.3 Likelihood of the project objectives and Global Environmental Benefits being realised (U)

Finding 21 The project's environment and development objectives are unlikely to be ultimately achieved without some major course corrections and improvements. The expected global environmental benefits described in the Project Document are also unlikely to be realised.

258. The project's internal logic broadly makes sense, including the barriers to sustainable inland fisheries that the project seeks to address (Figure 2). But as noted in Section 3 and demonstrated through MTR findings in Section 4.2, the causal logic between different project outputs both within and between components is far less clear. The project strategy as described in the Project Document narrative and Results Framework lacks detail, particularly in relation to the target species and the implementation context in each district.

259. The project needs a revised Theory of Change grounded in proper assessments of the local socio-economic, ecological and governance context of each target fisheries and a systematic assessment of the key drivers of change, critical assumptions and risks. It is not evident from implementation to date, as detailed in Section 4.2, that the project will have put in place successful and scalable strategies and models to develop systemic national and local capacity to address the threats to inland aquatic biodiversity in Indonesia through a sustainable inland fisheries approach. The reasons for this are discussed further in Section 4.4.

4.3 RQ3: Efficiency in the delivery of results (MU)

To what extent has the project been implemented efficiently, cost-effectively, and how far has management been able to adapt to any changing conditions to improve the efficiency of project implementation?

Finding 22 Efficiency of project execution has been mixed with major delays in the delivery of outputs and overall slow progress towards outcomes. With slightly over 20% of GEF resources spent, total project expenditure has been modest, but cost-effectiveness is likely to have been impacted by a range of factors, including: frequent turnover within the PMU and long periods of vacancy in key roles as well as several changes of the National Project Coordinator (NPC), resulting in loss of continuity and institutional memory and delays in execution; lack of adequate quality assurance of project planning, implementation and monitoring, including of Service Providers and Service Contractors, whose deliverables have varied in quality and completeness; insufficient use of mechanisms for technical backstopping by FAO; and failure to hire and deploy key expert inputs in the first two years of implementation, notably the gender, livelihoods and M&E experts leading to gaps in the critical information required to plan demonstration activities, develop an effective M&E system and implement adaptive results-based management. Delayed and disjointed implementation of key activities has further disrupted the proper sequencing of related outputs and deliverables from Service Providers and Service Contractors have varied in quality and completeness. Restrictions on travel to field sites from March 2020 due to the Covid-19 pandemic has further delayed implementation many aspects of project implementation, particularly under Component 2.

260. The project has faced numerous delays from the start. The full project was approved by the GEF in August 2016 with an implementation start date of November 2016. Recruitment for a National Project Manager (NPM) began in April 2017 and the official project launch took place in May. Implementation began formally in June 2017, seven months later than originally planned. The reasons for this delay are not explained in the project's first PPR and PIR. There was very little activity or expenditure in the first year of implementation (i.e. from June 2017). According to the project's first PPR, there were two main reasons for this. First, was the time needed to hire PMU staff, including the Field Officers for each of the five project districts. It also took considerable time to bring together key national and local stakeholders from many different government departments and research institutions to form a Project Steering Committee (PSC) and approve the annual workplan. The PSC met for the first time in January 2018, when the project's first AWP was approved.

261. While most core PMU staff were hired, key shorter-term roles intended for the early implementation period were either not filled or filled but not successfully retained, notably the experts on gender, livelihoods, M&E and communication. As a result, assessments intended to guide the design of demonstration activities and establish indicator baselines have not been completed. There have also been numerous disruptions to implementation, particularly as a result of high turnover within the PMU, but also due to changes in key counterparts within FAO (e.g. LTO) and MMAF (e.g. NPC) accompanied in some cases by loss

of institutional memory. Interviewees also reported that FAO administrative procedures and approval processes have contributed to delays and inefficiencies, as well as coordination and communication issues between FAO and MMAF. These issues are discussed in more detail in Section 4.4.2.

262. The MTR did not have sufficient information or time to assess cost-effectiveness in monetary terms. Given that nearly 75% of the project budget remains unspent after 3.5 years of implementation[49], the project has clearly been careful in managing expenditure overall. A potentially significant cost-saving was made by shifting the PMU to Jakarta from SEAFDEC in Palembang in Sumatra, where it was originally located as planned in the Project Document. However, cost-effectiveness has undoubtedly been negatively impacted by the many delays and disruptions to project implementation and the associated impacts on the correct sequencing of planned activities. Adverse impacts on efficiency have been compounded by the variable quality of products from Service Providers (SPs) and Service Contractors (SCs) reviewed by the MTR[50], including some that were of very limited value to the project. This suggests there is need for greater technical quality assurance in the development of Terms of Reference (ToRs) and Letters of Agreement (LOAs) for SPs and SCs as well as strengthened monitoring.

[49] As of 25th January 2021, the project had an actual expenditure of 22% with a further 4% in hard commitments, leaving a balance unspent budget of 74%.

[50] Outputs from SCs/SPs reviewed by the MTR include the eel demonstration in Cilacap by PT Labas, the capacity building assessments and plan and training module development by SEAFDEC, various training reports and the work undertaken to prepare academic papers proposing revisions to the five district spatial plans.

4.4 RQ4: Factors affecting Performance

What have been the major factors influencing project delivery and progress towards results?

4.4.1 Project design, logic and readiness for implementation (U)

Finding 23 The project design as described in the Project Document and Results Framework is overly complex and confusing, with 8 outcomes and 21 outputs and the PMU, FAOID and MMAF have all struggled to understand its logic. Many of the Results Framework indicators and targets are not sufficiently SMART[51] and include several impractical and unrealistic targets, such as improved food security for 1,000,000 people by the end of the project. The Project Document and the Results Framework are also only available in English. These factors have made it difficult for the PMU, MMAF and other local project partners, particularly those not familiar with GEF projects, to fully understand the original project design and to adapt it while staying well-aligned with planned objectives and outcomes. This has also made it difficult for the PMU to communicate the project effectively to key stakeholders.

263. The formulation of several of the Results Framework project outcomes and outputs is confusing and a close reading of the Project Document is required to interpret these. Additionally, in the MTR's view, some outputs represent a higher-level result than their corresponding outcome, while other outputs are almost identical to their corresponding outcome, and could be outcome indicators rather than standalone outputs (see Annexes 6 & 7).

264. The MTR ToC development process revealed critical weaknesses in the original project design, including flawed assumptions and insufficient understanding of the local implementation context. In other words, although the linkages between the broad problem statement, threat analysis, desired end state, barriers analysis and main project components are clear (Figure 2), the causal logic between individual outputs and outcomes is far less evident. There is also little explicit recognition of the drivers or enablers of success or and limited identification or discussion of the risks to the delivery and sustainability of results, although these are integral to good project design.

265. As the project was not required to develop a Theory of Change at the time of approval (Section 3), flaws in project logic were perhaps not as apparent at the project preparation phase. Furthermore, most of the specific project intervention sites in each district had not been identified at the time, while details of the targeted fish species, including their legal status and abundance in the demonstration sites, were evidently also not known. As a result,

[51] Specific, Measurable, Achievable, Relevant and Time-bound

there are many confusing aspects to the original design of the IFish project as discussed in previous sections, notably in Section 4.2.

266. The principal weaknesses in project design revolve around three elements:

- The misconception that district land management plans (i.e. spatial plans/RTRWs) can be easily revised within the timeframe of a 4-year project and also implemented at a village-level by local communities, including the extent of influence an external project can have on these complex processes.

- The selection of two legally protected species, clown knife fish and arowana (two of three species targeted by the project), as the focus for sustainable capture fisheries interventions based on Fishery Management Plans, although the catch of these species is generally prohibited and their actual status in the project demonstration sites unknown.

- The added misconception that a Fishery Management Plan can be developed and approved nationally and adopted and implemented locally within the time-frame of a 4-year project, including the idea that these plans can be integrated into district land management plans (i.e. spatial plans) within this timeframe and can also be implemented together with communities at a site-level.

267. It is unclear if original design elements relating to EAFM were due to a lack of understanding about EAFM approaches in Indonesia or whether current disconnects are due more to changes that have occurred subsequently as Indonesia has continued to develop its EAFM approaches in the marine sector. However, as a result of this and the misconceptions about land management plans and FMPs, there is very little guidance in the Project Document about how demonstrations on integrated wetlands management are to be developed and implemented in the Indonesian context. There is also no explanation of the similarities and differences between EAFM in the marine and inland waters context.

268. In terms of project "readiness" for implementation after approval, the early implementation period of the project was not used to revisit project design or further revise Results Framework indicators and targets or to establish missing baselines (also see Section 4.2.1.4). As project execution is by FAO, no capacity assessments were undertaken of the executing agency. However, IFish is FAO Indonesia's first experience of a GEF project. There is also no inland fisheries technical expertise in the FAO Country Office. The development of the project was spearheaded by staff at FAO headquarters and designed by consultants during the project preparation phase (the PPG) between 2014-16. Those involved in project design have not been available to clarify the Project Document, including the project's design logic and Results Framework, to either the original or the current PMU, which has little if any prior experience with GEF project design and implementation. The Project Document only being available in English has made it even more difficult for most PMU members and other project partners to fully understand and critically evaluate the project design.

269. IFish is also MMAF's first experience of a GEF inland waters project and also the first experience of a GEF project for the project NPC, the Director of MMAF's Fisheries Research Centre, and for many other MMAF project counterparts. The challenges of interpreting complex GEF project documents by those not involved in their preparation (and available only in English) is not an uncommon problem although this issue is still to be satisfactorily addressed by the GEF and its implementing agencies (see Section 7).

4.4.2 Project execution and management (MU)

Finding 24: Project execution and management by FAO and the PMU have been affected by a range of challenges, including high turnover in key positions not only in the PMU but also within FAO and MMAF. International and national technical capacity to support project delivery that was planned and budgeted in the Project Document has either not been used effectively or not deployed at all, including the gender, livelihoods and M&E experts. The project inception phase was not used effectively to clarify the project design, update Results Framework indicators and targets and establish baselines. The establishment of a robust M&E system was not prioritized and project implementation and results monitoring have been weak as a result. There has generally been insufficient quality assurance in progress and other technical reporting and in ensuring high quality products from Service Providers and Service Contractors. Additionally, the MTR found that salaries of several PMU staff were not paid for up to two months during the current pandemic, creating hardship and impacting staff morale. This has been attributed to FAO's limits and rules on cash advances and having to organize certain types of project activities remotely that required upfront cash payments.

Finding 25: Project performance and results delivery have also been impacted by challenges to smooth coordination and communication between FAO, the Executing Agency, and MMAF, the lead government counterpart and Project Executing Partner, mainly at the institutional level. In order to address some of these challenges, MMAF put forward a proposal for a project Standard Operating Procedure (SOP) in 2019 to help it meet its internal requirements. However, FAO was unable to sign this SOP as it conflicted with its own legal rules as an international organization. There was also concern about creating a heavy administrative and reporting burden on the project that could cause further implementation delays. The issue of the SOP remained unresolved at the time of the MTR.

270. FAO is both the GEF implementing agency for the project and the executing agency for the project while MMAF is the lead government counterpart and the Project Executing Partner. The project National Project Coordinator (NPC), who is the Director of Pusriskan (MMAF's Fisheries Research Centre) and a senior (Echelon 2) officer, is the lead person for ensuring the smooth execution of the project on behalf of the Government of the Republic of Indonesia. The respective roles and responsibilities of FAO and MMAF are detailed in the Implementation Arrangements section of the Project Document and the NPC ToRs in Annex 5 of the Project Document.

271. Day to day project management and execution is undertaken by the Project Management Unit (PMU), who are also FAO staff. The PMU was initially hosted by SEAFDEC in Palembang in Sumatra as planned in the Project Document. But it was soon realised that this was not an efficient arrangement and the PMU was shifted early on to MMAF's office in Jakarta. The PMU's five Field Officers (FOs) are located within the local government Fisheries Office in each target district. The key functions of the PMU are also summarized in the Project Document.

272. FAO has provided significant administrative and operational support to the project, including procurement, contracting and other financial services as well as technical inputs and supervision. The latter is discussed in more detail in Section 4.4.3. However, as should be clear from the preceding sections (particularly Sections 4.2 and 4.3), there has been a number of challenges to project execution and management from the outset. These challenges have disrupted smooth project implementation, including the appropriate sequencing of related activities; important activities intended to inform the design of demonstration site interventions have also not been undertaken. This in turn has not only impacted delivery, but also the quality and potential sustainability of project results. This last is discussed separately in Section 4.6.

273. Factors that have disrupted project implementation and impacted the timeliness and quality of delivery include the following, some of which are inter-related.

- High turnover within the PMU and long periods of limited capacity due to extended vacancies in core positions, e.g. the NPM position was vacant from July 2019 until a new NPM came on board in January 2020, while the lead role for Component 2, the National Consultant (NC) for Inland Fisheries, was vacant for 18 months from December 2019 until June 2020.
- Failure to recruit and/or retain certain additional key positions in a timely manner notably the livelihood and socioeconomic expert, the gender and livelihood expert, the M&E expert and the biodiversity mainstreaming expert. This has resulted in critical work intended as inputs to planning demonstration activities and supporting overall project management not being completed .
- A complex Project Document and a Results Framework that are difficult to understand and translate into action, but that were also not revised during the project inception phase.
- Limited or no prior experience of GEF projects within the PMU and the FAOID Programmes team, including of the GEF's approach to mainstreaming biodiversity and other key policies, strategic priorities and requirements regarding gender, indigenous people, stakeholder engagement, project M&E and adaptive management.
- Delays due to FAO's sometimes lengthy administrative procedures, procurement processes and technical approvals (e.g. of ToRs and LOAs). Additionally, FAO rules and limits on cash advances for project expenditure appear to be causing not only

inefficiencies in project management and implementation, but also serious personal hardship to PMU staff, including withholding several staff salaries for up to 2 months at the time of the MTR.

- Failure to make the best use of FAO's technical experience and global networks, including lack of timely (i.e. sufficiently early) consultation with key technical experts such as the LTO and GEF FLO, so that they can provide guidance on proposed activities, alignment with GEF policies and requirements, share international best practices and other inputs to strengthen project implementation.
- The loss of institutional memory within the PMU, with only two members of the original PMU who have been involved from the early stages of implementation in 2018 still on board. These are the NC for Policy, the lead for Component 1[52], and the Finance Administrative Officer. However the loss of institutional memory is also due to not having effective M&E and knowledge management systems.
- Frequent changes in the designated NPC and the NPC's person-in-charge (PIC NPC), who is in charge of the day-to-day oversight of the IFish project and other functions as delegated by the NPC. In the 3.5 years since the project began, there have been 4 designated NPCs and 3 PIC NPCs. The current designated NPC, took over the role in October 2020. However, the PIC NPC has been in the role since December 2019 and has known the project since its inception in 2017.
- On-going communication and coordination challenges between FAO and MMAF since the resignation of the first NPM in July 2019 with knock-on effects on the relationship between the PMU and MMAF.
- The Covid-19 pandemic, which began in early 2020 and is still on-going, and which has led to restrictions on domestic travel, with particularly strict restrictions on the PMU who are subject to UN rules.

274. The MTR is intended as a constructive and forward looking exercise. Therefore, the MTR team did not think it would be particularly helpful to dwell on all the various reasons given by interviewees for the many disruptions to project implementation since 2018. Instead, in the rest of this section, the MTR focuses on the three main findings regarding project execution and management, highlighting the areas where work is needed to strengthen project execution, management and performance and communication and coordination between FAOID, MMAF and the PMU. Apart from Covid-19, all other factors are within project partners' ability to address.

4.4.2.1 No-cost Extension

275. The MTR's assessment is that the project needs a suitable length of time to undertake the course corrections and improvements needed to put the project back on track to deliver

[52] The lead for Component 1 has since left the project.

meaningful and sustainable results. The successful implementation of a large complex GEF project is not an easy proposition at the best of times, particularly one using a biodiversity mainstreaming approach that involves working with multiple sectors and different administrative units in five districts and three very different provinces – that too in an exceptionally complex sector such as inland fisheries about which there is also very little data.

276. A 3-year extension until end June 2024 would allow the project and its key partners the space and time to develop and validate a project Theory of Change and prioritize interventions for the remaining project period, including identifying the most appropriate intervention strategy for each demonstration site. It will also allow the project the necessary time to revise its Results Framework, consolidate existing project knowledge, and to develop and implement a robust M&E system. In particular, this will give the project an opportunity to resolve major weaknesses in project design and gaps in implementation, such as identifying what can replace the Fishery Management Plans for *belida* and arowana and developing demonstrations on integrated wetlands management. It will also allow the project to identify strategies to consolidate and further advance its existing policy achievements so that these deliver real impact on the ground.

277. A 3-year extension would also allow important activities that should have taken place in the first 1-2 years of project implementation to be implemented, such as the socio-economic, livelihoods, gender and biodiversity assessments. Without such an extension, it will be difficult to sequence activities correctly and to ensure that the further development and implementation of project activities is informed by appropriate information. A suitably long extension would also enable the project to build greater national and local cross-sector ownership and to strengthen local capacities. Another implementation gap that could be addressed is increasing project engagement with other relevant actors, including private sector and civil society, potentially creating synergies through strategic alignment and collaboration.

4.4.2.2 Project execution, strategic planning and adaptive management by the PMU

278. The new NPM has done a remarkable job of rebuilding and reinvigorating the team in difficult circumstances, and also of trying to accelerate implementation and delivery, despite having to work remotely much of the time due to Covid. Three key vacant positions have been filled since the NPM came on board and the team has delivered some impressive achievements in an exceptionally challenging year. Staff retention still needs to be monitored and managed carefully. The FO for Cilacap, who appears to have been very committed and dynamic[53], left the project for another role in October 2020. The position had still not been filled by March 2021, although it is vital not to lose momentum in the

[53] This assessment is based on the FO's Location Profile for Cilacap, End of Assignment Report (EAR) and Lessons Learned report.

demonstration site where activities are most advanced. Key short-term international and national positions also need to be filled in a timely manner as the project is at a very critical point.

279. Both the project and the PMU need maximum support from FAO, particularly FAOID and the LTO, to recover the lost ground of the last 3 years and successfully deliver the project outcomes. This includes identifying ways to make administrative and technical approval processes more efficient and effective. The MTR understands that every individual ToR currently has to be approved by FAOID, including ToRs developed by FOs as well as ones for relatively small-scale activities. While this may be due to past implementation problems, this creates bottlenecks and delays and essentially duplicates the functions of the NPM. One way to address this could be to agree quarterly workplans based on the approved annual workplan and delegate approval of ToRs for activities up to a certain budget (or other appropriate criteria) to the NPM. A robust M&E system and improved progress reporting would also remove the need for such close supervision.

280. Obtaining approvals from MMAF can also be a lengthy process as the project works regularly with three different Directorates General (DG Capture Fisheries, DG Aquaculture and DG Conservation) in addition to the Fisheries Research Centre. Approvals have to be first approved by the concerned DG(s) before being approved by the NPC or PIC NPC.

281. Another challenge for the PMU relates to FAO rules regarding cash advances for project expenditure and the inability of the project to plan and allocate resources efficiently when not using the LOA modality as not all project work is carried out through SPs and SCs. It appears that cash advances are based on individuals rather than the project as a whole and that FAO has a limit of USD 5,000 per person. This has meant that where the cost of an activity exceeds this amount, the total cost of the activity must be allocated across different staff and project outputs, even across unrelated outputs managed by staff who are not directly involved in the activity for which cash expenditure is needed. This makes planning, managing and accounting for such activities an administrative and management nightmare for the PMU.

282. Covid has complicated matters further with appalling consequences for several PMU staff and potentially MMAF staff. As a result of PMU staff not being able to travel to the field due to strict UN restrictions, the logistical arrangements for recent consultations on eel had to be delegated to project counterparts. This included making payments in connection with organizing meetings using cash advances obtained by the PMU. However, due to delays in obtaining invoices from counterparts to account for the cash advances (exceeding FAO's 3-month limit), three staff were not paid their salaries for 1 month and another three were not paid for 2 months.

283. While FAO undoubtedly acted within its rules, the MTR has concerns about the ethics of withholding staff salaries in this particular circumstance and in these exceptionally difficult times. This approach will inevitably negatively impact staff morale and retention. Options

must be explored to facilitate project planning and implementation where cash expenditure is unavoidable to avoid such problems in future and to prevent staff being personally impacted. Similar problems were faced by some MMAF staff who were unable to be reimbursed in a timely manner due to FAO procedures not having been followed at the outset. They too were at risk of incurring deductions to their salaries as a result. While it may be necessary to clarify FAO rules and procedures to PMU staff and project partners, it is also important that solutions are found in a timely manner when such a situation arises so that individuals do not incur undue financial and other stress.

284. Other immediate priorities include revisiting the overall project design and the intervention strategies for each demonstration district and site. Much greater emphasis is generally needed on strategic planning and critical review. This includes ensuring that the overarching biodiversity objectives of the project and therefore the particular significance of the biodiversity aspects of the project are fully internalized and prioritized by the PMU, and clearly reflected in project planning and implementation.

285. As discussed previously, the project needs an agreed overall Theory of Change linked to 'mini' Theories of Change for the target fisheries in each demonstration site. The changes to the original project strategy and the Results Framework should be based on these ToCs, as also the design of intervention strategies in each demonstration site and related activities. Developing these does not need to be a long and complex exercise, but it does require dedicated time and resources and should ideally be facilitated by someone with experience in developing and applying ToCs to adaptive project management. Ideally, this should not be a theoretician but someone with actual GEF or other practical experience of implementing large complex donor-funded projects. An understanding of the fisheries sector and/or wetlands management, particularly in the Indonesian context, would also be an asset. Key areas of alignment between delivering the project's biodiversity objectives and supporting specific government priorities, not only on fisheries, but also on wetlands conservation, climate change and local livelihoods and low carbon economic development, should be identified and integrated into the project to the extent possible, in line with the overall and site-specific ToCs. The main project partners and other relevant key stakeholders should also be consulted for inputs and to validate the ToCs.

286. Additional areas that need to be strengthened include the quality and accuracy of project reporting in the annual PIRs and the 6-monthly PPRs and the overall technical rigour and clarity of project technical reports and other documents. This has been illustrated in detail in Sections 4.2 and 4.3. The new NPM has been making efforts to create a shared understanding of the project through knowledge exchange, learning and discussion within the PMU since 2020. These efforts need to be further strengthened to ensure good communication and collaboration between the teams responsible for different project components and between the FOs and Jakarta-based NCs. Mechanisms are also needed to capture the site-specific knowledge of the FOs and to integrate relevant information into project prioritization and planning.

287. The identification, mitigation and management of risks also requires greater attention. These include immediate project implementation risks, as well as risks to the sustainability of project results. Despite the serious implementation and sustainability challenges faced by the project, its overall risk classification in the PIR has been rated as 'Low' since the first PIR of 2018. This may be partly due to lack of understanding of how to use the PIR's risk reporting section, although the form clearly states that the PIR Risk Table should also include any new risks identified during the course of project implementation, in addition to risks identified in the Project Document. Implementation and other risks cannot be systematically monitored and managed or mitigated unless these are documented and rated appropriately. As discussed in Section 4.4.3, there is also need for better oversight of project reporting and risk monitoring and management, as well as overall technical quality assurance by FAO. Risks to the sustainability of project results are discussed separately in Section 4.6.

288. Even with a 3-year NCE, addressing all of the above findings and the other MTR findings is likely to be challenging for the PMU, particularly for the NPM who must manage and direct many other things to keep the project going. Indeed the original Project Document had envisaged that one of the core PMU staff would actually as Deputy NPM. Given the particular challenges and requirements of a GEF biodiversity mainstreaming project, a better option might be to recruit a part-time Senior Technical Advisor (STA) to support the NPM. For instance, an experienced STA could be hired to provide a certain number of days of support a month to work with the project on project strategic planning, M&E and adaptive results management. Although the Project Document did not include provision for this, this could potentially be done by combining some of the existing functions currently distributed across several short-term international consultancy inputs. The MTR Team leader has seen many examples of the modality of a part-time STA is being used very effectively to support large complex GEF projects, partly by further developing the capacity of project teams to manage and implement such projects. It is vital that if an STA is hired that developing such capacity is a key part of the person's ToRs. Targeted short-term training and/or on-the-job capacity development of PMU staff should also be considered to address some of the project execution and management issues.

289. Finally, in the short-term, there is growing concern within the PMU about the loss of momentum in the demonstration sites due to the team's inability to travel to field sites to meet with local stakeholders in person, including local communities, and move ahead with project implementation. The MTR understands that FAO is considering whether exceptions can be granted to enable staff to travel domestically in line with national restrictions rather than UN ones. If this is not possible, then appropriate mitigation measures will need to be identified and implemented.

4.4.2.3 Communication and coordination between FAO and MMAF

290. As noted earlier in Section 4.1, MMAF fully recognizes the relevance and strategic value of the IFish project. Its alignment with MMAF priorities and its contributions in terms of supporting the delivery of MMAF and local government KPIs are also very much appreciated.

There is also generally good communication and coordination between the PMU and MMAF counterparts from different departments as well as with local Fisheries Offices. MMAF's major concerns, apart from the shared concern of all partners about delays in project implementation, are more of an institutional nature as described further below.

291. MMAF's chief concerns as reported during MTR interviews fall into the following four main categories.

- Being adequately engaged in project decision-making and oversight.
- The lack of an effective project M&E system and lack of regular, clear updates and reports on project progress.
- Insufficient technical expertise on inland fisheries within the PMU.
- The need for adequate and timely information from FAO to fulfil MMAF's own requirements on financial due diligence.

292. According to the Project Document, MMAF's role in project decision-making and oversight occurs primarily through strategic oversight and high-level decision-making through the Project Steering Committee (PSC), which is chaired by the Secretary-General of MMAF (see Section 4.4.3), while more regular supervision is part of the responsibilities of the NPC or the PIC NPC.

293. In terms of progress reporting to the NPC and the PIC NPC, the MTR understands that the only formal reports shared to date are the PIR, which the MTR agrees is difficult to read and also does not provide a good understanding of project progress. The MTR is also in full agreement with concerns expressed by MMAF about the lack of an effective project M&E system with SMART indicators, baselines and appropriate and realistic targets as already discussed in Sections 4.2.1.4 and 4.2.2.4 (also see Annex 7).

294. Although the PMU shares all the technical reports and other outputs produced by SPs and SCs with MMAF, the MTR believes it would be very helpful to also share summaries of major reports along with regular updates. As noted earlier, the MTR also found it difficult to establish the significance of certain project activities due to the varying quality of reports and the lack of analysis and synthesis of the results of the work produced by different SPs and SCs (see Section 4.2.1.4). A good general principle to adopt when sharing information with busy and overstretched officials is to make their life easier by presenting only the most essential information in the shortest and clearest way possible.

295. It is true that there is limited experience on inland fisheries within the PMU. The MTR has also noted the lack of experience on GEF biodiversity projects. However, the team is highly motivated and committed and should be capable of strengthening project implementation and delivery with further guidance, inputs and support from the FAO and MMAF along with a no-cost extension and ideally an STA. Specific relevant technical expertise can also be sourced when required through consultancy inputs.

296. In 2019 MMAF proposed a Standard Operating Procedure (SOP) for the project to FAO in order to address some of its concerns, particularly those relating to its own financial due diligence. One of MMAF's main concerns is to make sure it has all the information it needs to make its annual budget reports to the Ministry of Finance, which are subsequently reviewed by the Audit Board. The MTR was informed that in Indonesia, all government spend whether from national or international budgets is booked as government spend, i.e. even externally sourced grants have to be accounted in the government system and reported to the Ministry of Finance. Government can even be sanctioned if externally sourced funds, including grants, are not managed according to the government's own rules and procedures. MMAF is thus understandably concerned to have better oversight over project decision-making and management and keen to agree an SOP for IFish as it can be held to account for decisions made by FAO in which it was not involved.

297. The challenge for FAO with regard to the SOP is how to align its own rules and procurement procedures with those of the Government of Indonesia, as certain conditions may not be legally possible under FAO rules as an intergovernmental organization. Another concern is how to ensure that the SOP does not lead to further delays in project implementation due to additional layers of over-sight and approval or place too great a reporting burden on the project leading to other inefficiencies. Meanwhile, FAO has been providing annual handover statements (the BAST[54]) to help MMAF fulfil its annual budget report requirements. While the matter of the SOP is being worked through, it could be helpful for FAO to clarify its administrative and financial procedures to government counterparts, particularly in relation to its own legal requirements, and to also better understand how other donors and international agencies working with MMAF or other ministries are addressing these issues. For example, MMAF is implementing another GEF project with UNDP.

4.4.3 Project implementation supervision and oversight (MU)

Finding 26 The FAO-Project Task Force (PTF) has not been deployed effectively to date to support adaptive management and results delivery. More systematic oversight and technical guidance by the PTF could have helped pre-empt or overcome implementation challenges, and also contributed to creating a shared understanding of the project design and GEF requirements of a biodiversity mainstreaming projects. In terms of broader project oversight and governance, the Project Steering Committee has only met three times since the project began. It last met in February 2019.

298. The PTF is identified in the Project Document as an important FAO mechanism for supporting the PMU, project implementation and results delivery through regular meetings to discuss project progress, provide technical advice and troubleshoot implementation challenges. It is led by the FAO Budget Holder (BH) or alternate BH and includes the LTO

[54] Berita acara serah terima

and the GEF Funding Liaison Officer (FLO) and can be used to access additional technical expertise from within FAO to support different project activities as needed.

299. The MTR was informed that there have been regular interactions on project implementation by the FAOID BH (the FAOR) and alternate BH (the Assistant FAOR Programmes) and the earlier LTO based in FAO RAP in Bangkok although there are no formal records of these meetings or of any decisions and actions. The previous LTO also provided regular inputs to the project but was not a fisheries expert. However, the current LTO, who took over in September 2020 (and who was also briefly LTO at the start of the project), is a fisheries expert. The MTR found that the GEF FLO, (a role which is not necessarily filled by a technical expert), is rarely called upon for inputs or guidance and generally only involved at the time of project milestones such as project inception and annual PIRs. This may also have been partly due to the FLO being based in Rome and on a different time zone from FAOID and the LTO.

300. While FLOs may not have expertise in the technical areas covered by a specific project (in this case inland fisheries), they nevertheless have a thorough understanding of GEF policies and requirements, including M&E and adaptive results-based project management. They are thus often a source of invaluable guidance on different aspects of project implementation and management and can also help advise on solutions to implementation challenges that are also aligned with GEF requirements. Had the BH/alternate BH, LTO and GEF FLO, i.e. the core PTF, met more regularly to discuss the project, risks to project implementation might have been detected earlier and implementation challenges also addressed earlier. Furthermore, in this instance, the GEF FLO also happened to have considerable experience of wetlands management and could have been invaluable resource to the project.

301. Additionally, as noted previously, there are no structured induction processes for new PMU staff to develop a basic initial understanding of the project and of FAO, GEF and MMAF processes and requirements, including who the PMU should call upon for support and advice and at which point. For instance LTOs are not always consulted early enough in order to be able provide meaningful input to proposed project activities. Although it is hoped that turnover in the PMU has now stabilized, it may still be useful for the PTF to provide a short retroactive orientation to the PMU on GEF mainstreaming biodiversity projects and GEF, MMAF and FAO requirements, procedures and mechanisms for supporting the project.

302. In terms of broader project governance and oversight, the PSC is the policy setting body for the project, and when required, the ultimate decision-making body with regard to policy and other issues affecting the achievement of the project's objectives. The PSC is responsible for providing general oversight of the execution of the project and ensuring that all activities agreed in the Project Document – or subsequently amended through the appropriate approvals process - are adequately prepared and carried out. The PSC is expected to meet at least one a year and more often if needed. So far the PSC has met three times. Its third

and last meeting was in February 2019. Its 2020 meeting was delayed due to Covid and then postponed further to await completion of the MTR.

4.4.4 Application of Monitoring and Evaluation (U)

Finding 27 Despite a dedicated component on M&E, the project still lacks a robust M&E system to guide adaptive results-based management. This has adversely impacted progress monitoring and results delivery and needs to be urgently redressed, with appropriate technical inputs from M&E experts, and ideally with experience of GEF biodiversity projects, as originally planned and budgeted in the Project Document (see Finding 20).

303. The Project Document (pp. 60-61) includes a broad M&E Plan as well as a dedicated project component designed to ensure the development of a robust M&E system as a foundation for adaptive results-based management. Weaknesses in project M&E, including the existing Results Framework, have already been discussed in some detail in earlier sections (see in particular Sections 4.2.1.4, 4.2.2.4/Outcome 4.1, 4.4.1 and 4.4.3). Suggested changes to the Results Framework are also included in Annex 7. The need to greatly improve the quality of reporting in the PIRs and PPRs and knowledge management and exchange has also been highlighted. While the Project Document includes provisions for participatory approaches to M&E including community-based monitoring, these have not yet been developed or implemented as demonstration site work is still at an early stage in most areas.

4.4.5 Financial management and mobilization of cofinancing (S)

Finding 28 No major issues relating to the project's financial management or irregularities were identified by the MTR. Expenditure under some outputs (e.g. Output 4.1.1) or outcomes (e.g. Outcome 1.4) is not well aligned with results delivery and there may be insufficient budget for pending outputs unless the project plan and budget are adjusted. Some of the co-financing pledges at project preparation have not yet been delivered. Additionally, the project has no linkages with James Cook University, one of the named co-financiers.

304. Table 7 shows total expenditure by project component with a line for project management up to January 2021 and the original planned budget for each budget line shown in red in the total expenditure column. This shows that only 20% of the budget had been spent up to end January 2021. A further 4% had been committed.

305. No serious concerns were identified regarding FAO's financial management of the project other than the earlier discussed difficulties caused by the FAO's small limit on cash-based advances for project expenditure and delays in making payment (Section 4.4.4.2). However, over 50% of the budget for Component 4 has been spent and mostly under Output 4.1.1 (Table 8), which is intended to contribute to an effective M&E system that is still lacking. This included refining baselines and targets for global project indicators monitored through the Biodiversity Tracking Tool, which is also pending (also see Annex 11).

306. According to FAOID, expenditure to date has covered expenses related to conducting PSC meetings, joint monitoring trips with MMA and PMU salaries. The remaining budget for Component 4 including Output 4.1.1 will need to be managed carefully and synchronized with other related activities (e.g. under Component 3), if an effective M&E system is to be developed and adaptive results-based project management (Outcome 4.1) is to be achieved.

307. Most expenditure to date has been under Component 1 (Table 7), including slightly more than originally budgeted under Outcome 1.4 (the FMPs/RPPs). Expenditure does not appear to be well-aligned with progress, given that this budget is supposed to also cover the development of 3 FMPS and only the one for eel is actually being supported. Furthermore, not only was the eel FMP already under development by MMAF when the project began to support this activity, but this work also remains to be finalized. Meanwhile, a surprisingly small amount has been spent under Component 3, although one would expect the development of IIFGIS and even the Species Identification Guide to be more resource intensive, particularly the former. Surprisingly little appears to have been spent on project management to date as well.

Table 7 Expenditure (in USD) by component by year from 2017 to 2020

Component	2017 USD	2018 USD	2019 USD	2020 USD	Total expenditure in black / Total budget in red	% budget spent by component and in total
Component 1: Mainstreaming of inland aquatic biodiversity into resource development and management policy	-	67,082		83,592	**554,684** 800,000	**69%**
Component 2: Demonstrations of conservation and sustainable use of inland aquatic biodiversity	14,515	97,920	404,010	60,429	**504,495** 3,792,250	**13%**
Component 3: Monitoring and assessment of inland aquatic biodiversity	-	8,937	8,509	3,795	**21,241** 1,084,809	**2%**
Component 4: Project monitoring and evaluation and adaptive learning	7,017	69,780	20,260	23,988	**121,045** 220,745	**55%**
Project Management	47	11,769	18,590	14,813	**45,219** 294,890	**15%**
Total	**21,999**	**255,488**	**782,999**	**186,618**	**1,247,104** 6,192,694	**20%**

Table 8 Planned and actual project expenditures by component, outcome and output and budget balance

Components, Outcomes & Outputs	Original planned expenditure (USD)	Expenditure June 2017 - January 2021 (USD)	Total amount spent by January 2021 (%)	Budget Balance (USD)
Component 1: Mainstreaming of inland aquatic biodiversity into resource development and management policy				
Outcome 1.1	**222,000**	**174,490**	**78.6%**	**47,510**
Output 1.1.1	162,000	174,490		**-12,490**
Output 1.1.2	60,000	0		**60,000**
Outcome 1.2	**220,000**	**100,256**	**45.%**	**119,744**
Output 1.2.1	50,000	51,858		**-1,858**
Output 1.2.2	50,000	48,398		**1,602**
Output 1.2.3	120,000	0		**120,000**
Outcome 1.3	**192,000**	**94,252**	**49.1%**	**97,748**
Output 1.3.1	192,000	94,252		**97,748**
Outcome 1.4	**166,000**	**185,687**	**111.9%**	**-19,687**
Output 1.4.1	130,000	116,461		13,539
Output 1.4.2	36,000	69,225		-33,225
Total Component 1	**800,000**	**554,684**	**69.3%**	**245,316**
Component 2: Demonstrations of conservation and sustainable use of inland aquatic biodiversity				
Outcome 2.1	**3,161,250**	**504,495**	**16.0%**	**2,662,067**
Output 2.1.1	1,925,000	482,885		1,442,115
Output 2.1.2	472,250	15,230		462,332
Output 2.1.	764,000	6,379		757,621
Outcome 2.2	**631,000**	**0**	**0**	**631,000**
Output 2.2.1	165,000	0		165,000
Output 2.2.2	205,000	0		205,000
Output 2.2.3	160,000	0		160,000
Output 2.2.4	101,000	0		101,000
Total Component 2	**3,792,250**	**504,495**	**13.3%**	**3,287,755**
Component 3: Monitoring and assessment of inland aquatic biodiversity				
Outcome 3.1	**1,084,809**	**21,241**	**2.0%**	**1,063,568**
Output 3.1.1	184,000	3,007		180,993
Output 3.1.2	801,000	18,234		782,766
Output 3.1.3	99,809	0		99,809
Total Component 3	**1,084,809**	**21,241**	**2.0%**	**1,063,568**

Components, Outcomes & Outputs	Original planned expenditure (USD)	Expenditure June 2017 - January 2021 (USD)	Total amount spent by January 2021 (%)	Budget Balance (USD)
Component 4: Project monitoring and evaluation and adaptive learning				
Outcome 4.1	**220,745**	**121,045**	**54.8%**	**99,700**
Output 4.1.1	140,000	101,032		38,968
Output 4.1.2	60,000	13,682		46,318
Output 4.1.3	20,745	6,331		14,414
Total Component 4	**220,745**	**121,045**	**54.8%**	**99,700**
Project Management	294,890	45,219	15.3%	249,671
Total	**294,890**	**45,219**	**15.3%**	**249,671**
Grand total	**6,192,694**	**1,246,684**	**20.1%**	**4,946,010**

308. A table of pledged co-financing and actual co-financing is included in Annex 9. Significant amounts of co-financing pledged at project preparation stage are still to be delivered. These include USD 800,000 by FAO and USD 2.4 million by Provincial Government. There is also a smaller co-financing commitment included at the time of CEO endorsement from James Cook University for USD 250,000. However, IFish has no relationship with James Cook University. These three co-financing commitments should be clarified.

309. Finally, as shown in Annex 9, co-financing reporting in the PIR is not aligned with what was presented at the time of CEO endorsement, when pledged cash and in-kind cofinancing were presented separately. The proposed contributions of project district governments were also presented separately at the time of CEO endoreement, excluding Sukabumi. However, the 2020 PIR does not distinguish between in-kind and cash co-financing. The PIR also does not specify the contribution of individual district governments. Instead it provides a combined figure for all in-kind cofinancing from project districts. This too should be clarified.

4.4.6 Partnerships & Stakeholder Engagement (MS)

Finding 29 IFish does not have a partnership or stakeholder engagement strategy and the quality and breadth of the project's partnerships and stakeholder engagement have fluctuated over time. Strongest engagement overall has been with the fisheries sector, particularly at the district level, and with selected researchers, research institutions and universities. There has been little strategic engagement or collaboration with other key sectors and agencies, such as MoEF, MoA, MoPWH and MoE, BAPPENAS and BRG, either nationally or sub-nationally. There has also been relatively little engagement with relevant civil society actors and groups or with other donor-funded programmes.

310. At the time of project inception and up to the first PSC meeting in early 2018, there appears to have been good engagement and representation across relevant sectors. For instance, during the inception workshop meeting in 2017, MoEF highlighted linkages with Ramsar implementation in Indonesia and suggested that IFish collaborate with partners working on Ramsar as well as LIPI and Wetlands International. Indonesia has been a signatory of the Ramsar Convention since 1992 and has six designated Wetlands of International Importance extending over more than 960,000 ha. These include areas with peatlands and fisheries, including areas used by indigenous communities.

311. These relationships were never developed, however, and, as discussed earlier, there is little multisector coordination and collaboration, particularly at the national level. This has been compounded by the lack of a functioning national TWG. The turnover in the PMU and other disruptions to project implementation have also reduced the PMU's capacity to develop its partnerships beyond the fisheries sector. The Project Document indicates clearly that engagement and collaboration with MoEF in particular, but also MoA, MoPWH, MoE is key to the sustainable management of inland aquatic ecosystems and fisheries, as well as with relevant NGOs and other civil society organizations. However, the project is building on the strong relationships forged by FOs and through the project's spatial planning work to increase multisector cooperation at the local level through establishing district TWGs.

312. It is now essential to extend that relationship building to other relevant agencies, NGOs and a broader range of community groups to identify and leverage complementarities and potential synergies. Stakeholder engagement plans are generally required of GEF projects. Therefore the project should consider developing a stakeholder engagement and partnership strategy linked to its communication strategy (Section 4.4.7). Stakeholder engagement should include regular, targeted and concise communication with key stakeholders both within and outside the fisheries sector, including in particular with the GEF OFP in MoEF. Frequent short updates and summaries of progress and achievements, highlighting the information that a particular stakeholder group is likely to find most useful or relevant is better than waiting for the annual PSC meeting or only sharing lengthy PIR reports and project technical reports.

313. It is especially important for IFish to create links with other key actors and programmes on wetlands including peatlands management and climate change, in addition to its existing relationships. For instance, in October 2020 a Strategic Coordination Team for Wetlands Management was created by BAPPENAS to develop a wetlands management strategy and roadmap for Indonesia to support low-carbon development and the SDGs.[55] MMAF is also part of this team, although the MTR was not able to establish which particular DG is involved.

[55] https://forestsnews.cifor.org/70380/indonesia-creates-expert-wetlands-team-to-revitalize-development-goal-efforts?fnl=enen

314. Closer coordination with MoEF and its local technical implementation units in each district as well as agencies such as the Peatlands Restoration Agency/BRG is extremely important given the high level of complementarity between these sectors and the sustainability of inland fisheries and surrounding aquatic ecosystems. DGs within MoEF that are particularly relevant to IFish include the DG for Management of Protected Areas & Watersheds, which includes a dedicated Directorate for Wetland Ecosystems, the DG for Ecosystem & Natural Resources Conservation which includes programmes for sustainable lake management as well as the Sustainable or Green Eco-riparian Programmes, which are being undertaken in collaboration with DG for Environment Degradation and Pollution Control.

315. Finally, as mentioned earlier in Section 4.2, there are numerous relevant past and present NGO and government programmes and projects across Indonesia for the project to learn from, particularly in Central Kalimantan and in Sumatra. Particularly relevant NGOs and research institutions in addition to the ones the project is already engaging include Wetlands International and CIFOR.

4.4.7 Communication & Awareness Raising (MS)

Finding 30 As discussed earlier key communication deliverables under Output 4.1.3 have not been achieved by mid-term. Some communication and awareness raising has taken place through online articles and social media although the reach and impact of these could not be established by the MTR. The PMU has lacked capacity to undertake these activities in a strategic and systematic way as the Communications role within the PMU was vacant for long periods, most recently from 2019 until September 2020.

316. The MTR assessment of the project's communications and awareness raising activities has been mainly in relation to the delivery of relevant outputs under Component 4 and progress towards Outcome 4.1 (see earlier Sections 4.2.1.4 and 4.2.2). The former NC for Communications resigned in 2019 and a new NC for Communications and Outreach joined the team in September 2020. Communications work has accelerated since then.

317. The 2020 PIR states that the project is active on social media and includes numerous links to articles in Bahasa, which the MTR has not reviewed. The IFish website, which has been greatly delayed, will hopefully be completed in 2021. The website is intended to also act as the project's knowledge management system. The MTR has highlighted the importance of integrating knowledge management with the project M&E system, learning and adaptive management in Section 4.2.14. It is unclear how this can be achieved through a public-facing project website alone.

318. Also according to the 2020 PIR, a project communication strategy has been developed. However, in stakeholder interviews, the MTR was informed that a communication strategy is still under development. Amongst other things, the communication strategy should serve to strengthen stakeholder engagement and project ownership (Section 4.2.6) by disseminating evidence on the value of sustainably managing critical inland fisheries and

aquatic ecosystems and showcasing best practices generated by the project and its partners. Through this, it should also contribute to strengthening the sustainability of project results and mitigating risks to sustainability (see Section 4.6). It is therefore important that the project communication strategy includes mechanisms to share regular brief updates on project progress and plans with key project partners and stakeholders. It should also include opportunities for periodic in-person sharing through brief presentations and discussions beyond the PSC and TWG meetings. For instance, at the national level, in addition to the NPC and PIC NPC, this include other important counterparts in MMAF such as the Bureau of Public Relation and International Cooperation. There should also be regular communication with the GEF OFP and with focal points in other key national Ministries and local government. A similar communication approach should be replicated at the local level, potentially through the new district TWGs.

319. Finally, the project's communication strategy will need to be critically re-evaluated once the overall project strategy for the remaining implementation period is agreed, i.e. after the other key course corrections and improvements outlined in Section 6 have been undertaken, assuming the NCE is approved and the project is extended.

4.5 RQ5: Cross-cutting Equity Issues (U)

How have considerations regarding gender, youth, vulnerable and marginalized groups and indigenous peoples been taken into account in project design and implementation and environmental and social safeguards applied?

Finding 31 Very little attention has been given to issues relating to gender, indigenous peoples, youth, vulnerable and other marginalized groups in the design and implementation of project activities. The Project Document included provision for inputs from gender and livelihood experts that were to have been delivered over the first two years of implementation, including a gender action plan, but these have not materialized. Although two gender experts were hired, each was on board for only 3 months. No socio-economic or gender assessments were undertaken to guide project planning and implementation in the demonstration sites and there has been no comprehensive analysis of these or other relevant factors such as resource use, tenure and governance in relation to the target inland fisheries and fishery systems. There are also no objective beneficiary selection protocols.

4.5.1 Gender equality, indigenous peoples, youth and vulnerable and marginalized groups (U)

320. The Project Document places considerable emphasis on the socio-economic aspects of the project, and indicates a clear commitment to GEF and FAO policies on gender and indigenous peoples and particularly to contribute the project's intention to the objectives of FAO's gender policy (Project Document, p.12). In fact, the Project Document mentions gender 39 times and highlights the many different ways in which both the GEF and FAO's policies on gender will be integrated into all aspects of project design and implementation. Apart from frequent references to ensuring the strong participation of women and indigenous peoples, the Project Document also states that the project will stringently avoid perpetuating or exacerbating any inequalities, specifically "*The project will ensure that these stakeholders are afforded fair and equitable treatment and that their rights and customs are not infringed.*"

321. To this end, the project plan and budget included provision for a national gender and livelihoods expert, who was to have been an integral part of the PMU during the first 2 years, as well as short-term inputs from an international livelihood and socio-economic expert. The ToRs included in the Project Document make it clear that the aim of the longer-term role *"is to ensure that gender and livelihood considerations are integrated into all project approaches, strategies, activities, inputs and outputs."* (p. 97). Additional tasks included developing a gender action plan to guide the further design and implementation of activities under each Component.

322. One gender expert was on board for 3 months in 2018 and another for 3 months in 2019. Neither was part of the project for long enough to conduct meaningful gender assessments or to provide any significant input to beneficiary selection processes, the design and implementation of demonstration activities, or the subsequent monitoring of gender-

related outcomes. No national or international livelihoods and socio-economic experts have been hired despite provision for this in the Project Document. **Thus, more than three and a half years into project implementation, no gender, livelihood or socio-economic assessments have been conducted in the demonstration areas and no gender action plan has been developed to guide the planning and implementation of project activities.** Without these assessments, the integrated indicators that are to be developed under Outcome 3.1 cannot be completed or used to evaluate demonstration activities for their impacts on gender and livelihood as well as conservation outcomes (see Project Document, p. 31).

323. The MTR saw only one project report in which some attention was given to the role of women and wealth inequalities in relation to *beje* fisheries in Kalimantan (see Section 4.2.2/Outcome 2.1/Paragraphs 232-233). This apparently was due to the advice of the gender expert who was with the PMU at the time. A draft peatlands strategy prepared for the project in 2019 by an FAO consultant also underscores the importance of these factors in relation to project planning on *beje* fisheries Central Kalimantan and includes suggestions to address these (see Section 4.2.2/Outcome 2.1/Paragraph 234). But these proposals have not been taken into consideration so far despite their critical importance to the project and to GEF and FAO policies on gender, poverty and inequality.

324. As a result of these omissions, there is no comprehensive understanding of the roles of men and women or of other groups, including potentially vulnerable or marginalized groups, in relation to the fisheries targeted by the project or of the potential differential impacts of project interventions on these different groups. The project does not have any gender or livelihoods-related monitoring indicators or baselines, although the Results Framework includes ambitious targets on the food security and income of local communities. Nominal attention has been paid to these issues apart from trying to ensure and record the participation of women in trainings and meetings.

325. There is also no objective protocol for beneficiary selection, i.e. a selection process developed through an understanding of the local socio-economic context, including of any inequalities in wealth and power and differences in local patterns of inland aquatic resource use, governance and tenure. To date, beneficiary selection has been largely guided by local Fisheries Offices based on existing community involvement or interest in the fisheries targeted by the project (e.g. eel aquaculture in Cilacap; *beje* owners in Kalimantan). It is unclear if Free, Prior and Informed Consent (FPIC) is necessary in the areas where the project is proposing to work (see Sections 4.5.2 below), but a more transparent system of beneficiary selection based on objective criteria is advisable.

326. Given the stated importance of these cross-cutting issues to both the GEF and FAO and as the project is still at relatively early stage of implementation, it is essential that the current situation is addressed as a matter of priority. Experienced professionals should be hired to ensure that relevant inputs on livelihoods, gender and other key socio-economic considerations relating to the target sites and fisheries are properly integrated into project

planning and implementation as originally planned in the Project Document (also see Section 4.5.2).

4.5.2 Use of FAO Environmental & Social Safeguards Framework (U)

327. The GEF and UN agencies[56] are giving increasing attention to ESS in their projects and programmes. This is another reason why the socio-economic, livelihood, gender and biodiversity assessments that have yet to be completed are so vitally important. A very basic ESS screening checklist was completed for the project at the time of Project Document approval in 2016, almost 5 years ago. The checklist is very general and does not cover individual demonstration sites or the specific major interventions proposed by the project. The latter should also be assessed with an ESS lens to identify and evaluate potential negative ecological and socio-economic impacts. The existing completed checklist also gives no consideration to whether a Free, Prior Informed Consent (FPIC) process may be needed in the project sites, particularly in Kalimantan and Sumatra. And despite their high relevance, there is no reference to FAO's own guidance on FPIC[57] or its Voluntary Guidelines on the Responsible Tenure of Land, Fisheries and Forests in the Context of National Food Security.[58]

328. The existing ESS review needs to be revised with the additional information that is already available to the project and aligned with an updated assessment of implementation and sustainability risks (Sections 4.4.2.2 and 4.6, respectively). It should also be informed by any future site-based assessments of gender, livelihoods, other socio-economic considerations and ecological factors. PMU staff should be provided training on ESS and other aspects of project management discussed in Section 4.4 and 4.5.1, as well as on sustainability risks (Section 4.6).

[56] E.g. see this response by UNDP in 2020 https://info.undp.org/sites/registry/secu/SECU_Documents/SECU%200009-Congo926eaee781ec4cfa8fc61377ede699ec.pdf to a 2019 expose by Buzzfeed of a GEF project in the Republic of Congo https://www.buzzfeednews.com/article/tomwarren/wwf-world-wide-fund-nature-parks-torture-death

[57] FAO 2016. http://www.fao.org/3/i6190e/i6190e.pdf

[58] FAO 2012. http://www.fao.org/3/i2801e/i2801e.pdf Also see: http://www.fao.org/cfs/home/activities/vggt/en/

4.6 RQ6: Sustainability (MU)

What is the likelihood of project results being sustained after the end of the project and planned GEBs being realised?

Finding 32 There are moderate to potentially significant or severe risks to the sustainability of project results once GEF financing has ended, some of which may be outside the control of the project such as climate change. Environmental risks to sustainability such as pollution, sedimentation and changes in hydrology, as well as unregulated or illegal exploitation of inland aquatic resources are also likely to remain serious threats for the foreseeable future. The impacts of Covid-19 and an overriding focus on economic recovery may also have implications for the sustainability of results. Efforts are being made by the project to address certain types of risk, such as institutional and governance risks, and to some extent financial risks, particularly in relation to more tangible outputs, such as IIFGIS. The project's role in catalysing change from the 'business as usual' scenario is still to be realised.

Finding 33 The Social and Environmental Safeguards Framework, PPRs and PIRs are not being used effectively to monitor and manage risks to the sustainability of project results. Risk assessment and ratings need to better reflect the realities on the ground, such as environmental risks or those related to achieving multisector cooperation and policy change, so that appropriate steps can be taken to manage and mitigate these and to adapt the project as needed to enhance the sustainability of project results.

329. The MTR has identified a significant overall level of risk to the sustainability of project results, particularly due to the magnitude and potential severity of environmental risk. However, the MTR's assessment of other types of risk was limited by the lack of socio-economic, livelihoods and gender assessments by the project and the absence of any analysis of resource use, governance, tenure and relevant policy in the demonstration sites. Therefore, the MTR did not attempt to assess the different types of risks in detail or to rate these other than environmental risk. Instead, an 'Unable to Assess' (UA) rating is given to most types of risk.

330. The following GEF rating scale has been used to rate sustainability and risk:

- Likely (L) — There is little or no risk to sustainability
- Moderately likely (ML) — There are moderate risks to sustainability
- Moderately unlikely (MU) — There are significant risks to sustainability
- Unlikely (U) — There are severe risks to sustainability
- Unable to assess (UA) — Unable to assess the expected incidence and magnitude of risks to sustainability

4.6.1 Financial sustainability (UA)

331. The MTR was unable to assess the likelihood and potential magnitude of financial risk to project sustainability given that many aspects of the project strategy are still unclear and require further clarification (e.g. see Sections 4.2 and 4.4.1). For instance, the MTR was unable to establish exactly what further steps are needed and over what timeframe to operationalize and secure the project's policy achievements under Component 1, including whether or not the district and national TWGs will be a mechanism for coordination on inland aquatic ecosystems beyond the life of the project. It is clear, however, that the implementation of the eel Fishery Management Plan, the inland Fishery Management Areas and any regulations on catch of target species such as eel, will require national and local governments to allocate sufficient budget for planning and management, including monitoring and enforcement. The replication of any successful project demonstrations would also require government, and particularly local government, to allocate resources towards this. Maintaining and updating the Species Guide and IIFGIS so that it remains current and used will also require both a recurring and a development budget from MMAF.

332. Historically, however, MMAF budget allocations for inland fisheries have been limited. The sector receives a fraction of resources compared to marine fisheries. IFish, for example, has provided finance to accelerate a number of activities that were already underway but could not be completed because of insufficient budget. Meanwhile all government departments in Indonesia have been reorienting their budgets to address Covid recovery. In order for national and local policymakers to allocate budget to sustain project results, it will be critically important for IFish to demonstrate and communicate the relevance and tangible values of investing in the sustainable management and protection of critical inland capture fisheries and aquatic ecosystems. This could still prove challenging because of current policies favouring aquaculture over investment in capture fisheries.

4.6.2 Socio-political sustainability (UA)

333. It was difficult to assess socio-political risk in the absence of project information on the local implementation context, especially through a remote MTR, as it was not possible to interview a wide range of government stakeholders or local community beneficiaries and non-beneficiaries (Section 1.4). There is tremendous support for the IFish project within the district Fisheries Offices. However, the MTR could not establish the extent of government ownership and support beyond the fisheries sector, particularly within BAPPEDA and BAPPENAS. Additionally, the priority of Fisheries Office, and most likely other government units, will be job and wealth creation for local communities, particularly in the context of Covid recovery. Again, it is vitally important for the project to demonstrate its relevance and increase its visibility to key decisionmakers by strengthening its stakeholder engagement (Section 4.4.6) and the effective communication of project results (Section 4.4.7). Identifying and leveraging synergies and complementarities with other national and sector programmes and policies is especially critical to socio-political sustainability.

334. It was beyond the scope of the MTR to assess the potential implications for the sustainability of project results of any Covid 19-related impacts on rural populations in the project demonstration sites . However, an increase in rural poverty and joblessness could potentially lead to more unsustainable exploitation of inland aquatic resources as well as other activities that negatively impact inland aquatic ecosystems.

4.6.3 Institutional and governance sustainability (UA)

335. Given the many different types of planned project results, the multiple sectors involved in sustaining these and the complexities of decentralized government, the MTR could not assess institutional and governance risks to sustainability in detail, i.e. whether institutional structures, processes and capacity, and policy and legal frameworks, are sufficiently robust to sustain all project results after the end of the project, particularly at the local level. For instance, the likelihood of district TWGs that are currently being established being sustained beyond the life of the project is unclear. Similarly, it is unclear to what extent the MMAF decrees and district spatial plan revisions arising from the project will be further developed and operationalized as this will require additional investment and action beyond the life of the project.

336. However, the PMU, FAO and MMAF are extremely aware of this particular risk and the need to ensure the sustainability of project results by ensuring these are properly institutionalized either within MMAF or within local government institutions and mechanisms. It is also clear there is strong commitment within MMAF and local Fisheries Office to maintain and build on project outputs that meet their priorities, including their KPIs. Therefore, the PMU is giving considerable attention to the institutionalization of key outputs such as IIFGIS. What is less clear, is if there will be sufficient ownership at all levels and systemic capacity to sustain the full range project results and to build on these to achieve the project's objectives and deliver the expected global environmental benefits.

4.6.4 Environmental sustainability (U)

337. The number and magnitude of threats to inland aquatic ecosystems and fisheries in the demonstration sites, across Indonesia and globally is staggering. The MTR's interviews with the PMU confirmed that insufficient consideration has been given to how project interventions will lead to better management of the critical inland aquatic ecosystems and resources in the project demonstration sites. The environmental sustainability of project results is therefore an area of particular concern. The photograph below of a glass eel harvesting site in Sukabumi in the highly-industrialized West Java province, illustrates the problem well.

Figure 5 Glass eel harvesting site, Sukabumi

Source: IFish Location Profile of Sukabumi District, 2020

338. The PMU's location profile for Cilacap also lists a range of serious threats to eel and other aquatic biodiversity. As discussed in Section 4.2, traditional *beje* fisheries have been abandoned in many parts of Central Kalimantan due to declining productivity as a result of conversion of surrounding peatlands into rice fields and oil plantations and changes in hydrology. Interviewees noted there is severe pollution in the areas where the project has been working along the Kampar river and also in Sukabumi (see above). Other threats include continuing overexploitation of aquatic species such as glass eel, *belida* and arowana; the mixing of captive-bred and wild arowana varieties; pollution from industry, agriculture and households, including thermal pollution; sedimentation and related narrowing of water courses and estuaries as well as other changes to hydrology due to construction of dams and other infrastructure; invasive species; and of course climate change impacts.

339. Although the IFish project was designed to overcome many of these threats, insufficient attention is being given to environmental risk in the design and implementation of project activities in the demonstration sites (Section 4.5.2). In Cilacap, for example, project target villages are surrounded by high-input rice fields that are known to pollute the local water courses; apart from their impacts on aquatic biodiversity, this can impact the water quality of nearby eel aquaculture ponds when there is heavy rainfall. This last is thought to have happened in Kaliwungu and contributed to the mass death of cultured eel in the 2019 demonstration.[59] Equally, as noted earlier, the project is also not giving adequate consideration to the potential negative environmental impacts of its interventions, such as not having a waste management systems for the eel aquaculture ponds in Cilacap, resulting in the release of aquaculture waste water into the river at the end of each cycle to clean and dry the ponds and rid them of parasites. These types of issues should also be clearly captured in FAO's environmental and social safeguards screening process (see Section 4.5.2).

[59] PT LABAS Completion Report, February 2020

340. One reason for a relatively narrow approach to the design of project interventions may be an over-emphasis on accelerating delivery of the annual workplan, which is focused on activities and outputs. This in turn may lead to a loss in overall strategic direction as those tasked with leading particular components and implementation at field level become too busy with achieving their specific delivery targets. Another important reason may be that the project has yet to adopt an ecosystem-based approach to planning and implementing its demonstration site interventions, as originally planned in the Project Document. This, as discussed earlier, includes developing dedicated demonstrations on integrated management of inland aquatic ecosystems as well as finalizing the project's overall Theory of Change, and ideally individual ToCs for each demonstration site.

341. The high level of environmental risks to the sustainability of project results underscores the critical importance of further strengthening a well-integrated approach to the delivery of project results across all four components.

4.6.5 Catalysis and replication (UA)

342. It is too early to assess whether any project strategies will create the necessary incentives that will support upscaling in the existing demonstration sites, replication in other districts and/or other catalytic actions. However, it is clear that the project needs to give far more consideration to these hallmarks of a successful GEF project, as preliminary indications are that upscaling and replication of some of the project strategies could prove challenging, partly due to sustainability risks. For instance, most of the project's interventions on aquaculture require a certain amount of financial capital (assets such as land as well as money) and technical expertise. Successful eel aquaculture is difficult and *belida* aquaculture is also likely to be difficult. Eel, *belida* and arowana are all primarily fished for income rather than as a major food source. Even *belida*, which is ultimately consumed, is mainly sold by the fishers for the production of *pem pek*. The PMU itself is concerned about the project's ability to meet several key targets, such as the training of 3,000 fishers and 1,000 fish farmers because of the limited potential for scaling and replicating many of the current demonstrations.

343. In the absence of socio-economic and feasibility assessments, it is difficult to know how many local communities will be incentivized and able to take up sustainable aquaculture practices demonstrated by the project. In the case of eel, glass eel fishing is an order-based activity with less than 1000 seasonal fishers involved in Cilacap, while adult eel fishing is primarily a hobby. Furthermore, it is clear that glass eel fishing needs to be very carefully managed to reduce pressure on wild eel stocks. Stakeholder interviews confirmed that the potential for upscaling eel aquaculture is likely to be relatively limited and would also need to be managed very carefully to ensure it is done sustainably. It is therefore vitally important for the project to better understand and document the political, socio-economic and ecological contexts of planned project interventions. The FOs in particular often have a excellent understanding of many aspects of the implementation context and therefore also the risks and potential for upscaling or catalysing other change.

344. More importantly, the project's catalytic role in transforming the 'business as usual' scenario – a key objective of the GEF - is still to be realised as the project first needs to clarify which strategies will lead to better management, protection and sustainable use of inland aquatic resources and ecosystems. For instance, it is not clear that existing policy approaches or the current approach of aquaculture plus wild restocking will achieve this overarching objective in Sukabumi, Cilacap and Kampar without addressing wider threats to inland capture fisheries and aquatic ecosystems. It is also unclear to what extent the proposed *beje* development in Kalimantan can lead to benefits for the wider inland aquatic ecosystem, as much will depend on the specific approaches used and the potential for upscaling.

4.6.6 Risk assessment and mitigation measures in the Project Document, PPRs and PIRs

345. There is no formal monitoring or assessment of risk and mitigation measures in the six-monthly PPRs. The annual PIRs continue to report on the same categories of risk identified in the original Project Document and have also not updated risks to reflect changes in the implementation context.

346. The original overall risk rating in the Project Document was 'Medium'. This was broken down into 6 groups of risks with separate ratings for impact and likelihood. 'Medium' likelihood risks included: weak institutional framework and project coordination; slow uptake of policy recommendations; and further degradation of aquatic habitats due to changing patterns of land and water use. However, the potential impact of environmental risks was rated as 'High', while the potential impact of other factors was classed as 'Medium' or 'Low'. Surprisingly, both climate change and impacts of changing trade patterns on threatened species were classed as low risk in terms of both likelihood and impact. The overall project risk rating was downgraded to 'Low' in the first PIR and has remained unchanged since then.

347. Risks and risk mitigation measures need to be updated to better reflect the changing realities of the national and local implementation contexts. Risk assessment and reporting should ideally follow the same categories used here that will also be used in the project's final evaluation. Risk monitoring should also be integrated into the project M&E system and inform adaptive management (see Section 4.4). Currently oversight of risk reporting is seen as primarily the responsibility of the FAO LTO, who signs off on this in the PIR. In the MTR's view, risk monitoring and management is the collective responsibility of the PMU, the PTF and the PSC.

348. The sustainable management of inland fisheries and aquatic ecosystems is inherently risky, because of the multiple threats they face and the many sectors and stakeholders that must act together to address these over a long period, well beyond the life of the IFish project. This is the nature of a GEF project seeking to mainstream biodiversity into a complex sector with exceptionally difficult barriers to overcome to achieve sustainability – and a challenge

for freshwater ecosystems across the world.[60] The MTRs ratings of the likelihood of different types of sustainability merely reflect this reality. This is all the more reason for the IFish project to be extended so that it can deliver its planned outcomes. It is also vital to recognize the nature and level of different types of risk and to develop and implement mitigation measures to the extent possible, along with regular risk monitoring and updating.

[60] E.g. See https://www.theguardian.com/environment/2021/feb/23/global-freshwater-fish-populations-at-risk-of-extinction-study-finds?CMP=Share_iOSApp_Other

5. Conclusions

5.1 RQ 1 Relevance and Ownership

349. **Conclusion 1:** The IFish project remains highly relevant due to the global, national and local significance of Indonesia's inland aquatic ecosystems, which includes their biodiversity value and the economic and cultural importance of associated inland fisheries. These like most global freshwater systems and wetlands are amongst the most threatened ecosystems in the world. However, in order to realise planned environmental, economic and social benefits, the IFish project will need a no-cost extension (NCE) of at least 2-3 years.

350. **Conclusion 2:** The project has a high degree of ownership by MMAF and district government Fisheries Offices in project demonstration areas on which it can build, but ownership by other relevant sectors and local communities needs to be significantly strengthened.

5.2 RQ2 Effectiveness

351. **Conclusion 3:** While progress towards outputs and outcomes has been greatly delayed overall, most planned outcomes could still be achieved - with major course corrections and some improvements in project design, management and implementation arrangements and a performance-based no-cost extension of 2-3 years.

352. **Conclusion 4:** There is need to further strengthen project partners' understanding of the GEF biodiversity mainstreaming approach to sustainable fisheries and to find ways to better integrate biodiversity considerations into project planning, implementation and monitoring as the latter do not always a) give sufficient consideration or priority to the project's biodiversity objectives; b) reflect a clear understanding of the GEF approach to mainstreaming biodiversity into a productive sectors, in this case fisheries; c) draw sufficiently upon FAO's vast technical experience and other international and national best practice; and d) make use of the additional international and national expertise budgeted in the Project Document

353. **Conclusion 5:** Major flaws in the original project design and other gaps and obstacles are having a significant impact on the delivery of project results. These include: a) misconceptions about the extent of policy change that the project could realistically bring about within a relatively short timeframe; and b) a lack of understanding – or realism - about the scope and application of district spatial plans (RTRW) and Fishery Management Plans (RPP). Even if these could be successfully revised or developed within the project timeframe, neither the district spatial plans nor the FMPs can be easily translated into site-based 'land management plans' that can be implemented by local communities, government and other local stakeholders. Additionally, differences in approach to EAFM/EAA between FAO and MMAF have stalled progress on project plans for developing and implementing EAFM/EAA training and using site-based EAFM/EAA approaches to inland capture fisheries in the demonstration sites. Finally, it is worrying that a GEF biodiversity project has lacked clarity

over the taxonomy and conservation status of one of its three target fisheries (clown knife fish) since the design phase up to mid-term.

354. **Conclusion 6:** The design and implementation of demonstration activities under Outcome 2.1 needs careful reassessment to ensure these are in line with planned project outcomes and objectives, technically sound and socially, economically and environmentally viable with potential for replication and long-term sustainability. Where changes are needed due to design flaws or altered implementation circumstances, these must remain aligned with the original project objectives and expected outcomes as well as GEF priorities for biodiversity mainstreaming projects. A particularly critical gap is the lack of any demonstrations on site-based integrated wetlands management with local community engagement - a key element of the original project plan.

5.3 RQ3 Efficiency

355. **Conclusion 7:** Efficiency of project execution has been mixed and cost-effectiveness is also likely to have been negatively impacted due to a range of factors that have affected performance, delayed and disrupted implementation and delivery, and also impacted the quality of project results.

5.4 RQ4 Factors affecting performance

356. **Conclusion 8:** An overly complex and confusing project design with too many planned outcomes and outputs has acted as a barrier to a shared understanding of expected project results and to smooth and coherent project implementation. Additionally, lengthy documents in English and unexplained use of donor terms (i.e. jargon) are a further barrier to full understanding of the project design and GEF requirements by non-native English speakers. An unclear Results Framework with many non-SMART indicators and targets and missing indicator baselines has contributed to the lack of effective project M&E, adaptive management and unclear project progress reporting in PIRs and PPRs.

357. **Conclusion 9:** The lack of a robust project M&E system and inability therefore to easily track progress towards outcomes and enable adaptive results-based management is affecting the delivery and quality of project outputs and the realisation of project outcomes, particularly under Components 1 and 2. This also limits the project's ability to systematically capture good practice and lessons and to monitor risks to project implementation and to the sustainability of project results.

358. **Conclusion 10:** Improvements in project execution and management are essential if a no-cost project extension is to lead to improved project performance and successful delivery of project outcomes. Results delivery might have been greater at mid-term had there been more systematic oversight, guidance and technical backstopping from the FAO-Project Task Force and greater overall quality assurance by both FAO and the PMU, particularly with regard to implementation and risk monitoring, the deliverables produced by Service Providers and Service Contractors and the delivery and use of co-financing pledges made at

CEO endorsement. Strengthened communication and coordination between FAO and MMAF and streamlined administrative and technical approval processes by the respective partners to the extent possible are also essential to increase project efficiency and effectiveness.

359. **Conclusion 11:** Addressing the multitude of threats to inland fisheries and aquatic ecosystems requires the long-term cooperation and action of a wider range of actors at different levels across different sectors, including government, private sector and civil society. In the meantime, the project should ensure that it does not contribute to existing threats through its own interventions by implementing appropriate environmental safeguards. Effective communication and far greater and more strategic stakeholder engagement is needed by IFish to achieve the project's planned outcomes and biodiversity mainstreaming objectives.

5.5 RQ5 Cross-cutting issues

360. **Conclusion 12:** Despite GEF and FAO policies and a strong emphasis on gender and other socio-economic considerations in the Project Document, there has been surprisingly little attention given to date to considerations on gender and marginalized and vulnerable groups in the design and implementation of project activities, including on implementing social and environmental safeguards in relation to project interventions in the demonstration sites.

5.6 RQ6 Sustainability

361. **Conclusion 13:** While there are many risks to the sustainability of project results, this is the reality of a GEF project seeking to mainstream biodiversity into a complex sector with exceptionally difficult barriers to overcome. This is a shared challenge for freshwater ecosystems across the world and all the more reason for continued investment and sustained effort to address this challenge.

6. Recommendations

6.1 Re-orient the project for success

362. **Recommendation 1 Undertake a joint planning exercise led by FAO and MMAF in the next 3-4 months to simplify and adapt the IFish project design and results framework to achieve planned project outcomes within the next 2-3 years and set the project back on track to deliver its environment and development objectives, building a shared understanding of the project.** Budget and timeline permitting, this would be facilitated by an external expert, with practical experience of developing and implementing large complex projects and of applying results-based adaptive management, and preferably also with experience of GEF biodiversity mainstreaming projects to ensure revisions are aligned with GEF requirements. Amongst other things, the planning exercise should cover the following priority actions:

R1.1 Finalize the project Theory of Change, including 'mini' theories of change for target fisheries targeted in each demonstration district, clarifying the project logic, particularly between Components 1 and 2 and defining key terms such as 'critical inland aquatic ecosystems'.

R1.2 Undertake preliminary socio-economic, livelihoods, gender and ecological assessments of the target fisheries and demonstration areas to inform the project re-design, including the overall Theory of Change and the mini ToCs for each target fishery.

R1.3 Clarify the species of *Chitala* found in the Kampar project demonstration sites, its conservation status (i.e. IUCN Red List Category) and if possible its population status.

R1.4 Identify what will replace the original project output of developing Fishery Management Plans for *Chitala* and arowana if these are no longer being developed.

R1.5 Prioritize the development of demonstrations on integrated wetlands management in high-conservation value inland aquatic ecosystems, including the development of the participatory, multistakeholder land use plans and EAFM/EAA plans and other strategies to increase both local community engagement and benefits as well as improved management of wild capture fisheries, the wider habitat and related biodiversity.

R1.6 Revise the Results Framework after clarifying the project logic and completing the project Theory of Change, to create a useful planning and monitoring tool, with a robust set of SMART indicators with targets with baselines, including biodiversity impact indicators, that can support adaptive results-based management and the delivery of project objectives.

R1.7 Develop a 2-3 year project implementation plan that sets out exactly where and how the project will work, including the species targeted, the proposed interventions, and the strategies for engaging local communities and selecting beneficiaries. The plan should include a clear rationale for every major intervention linked to the revised Theory of Change that shows how each major proposed intervention will result in the delivery of planned outputs and contribute to delivering the planned outcome, including any delayed mid-term targets, end of project targets and ultimately the project objectives.

R1.8 Ensure key documents arising from the joint planning exercise (i.e. Theories of Change, revised Results Framework, revised implementation plan, etc.) are made available in Bahasa to national and subnational stakeholders.

R1.9 Extend the project by 2-3 years on a no-cost basis once an updated project implementation plan has been completed and agreed by the project partners (FAO and MMAF) and approved by the PSC.

363. **Recommendation 2 Use the post-MTR joint project planning exercise to agree on mechanisms to strengthen coordination and communication between FAO and MMAF, including channels for resolving differences between the partners.** This could include having more regular meetings of the alternate FAOID Budget holder, the NPM and the NPC to discuss the project in between the annual or six-monthly Project Steering Committee meetings, with other relevant MMAF technical counterparts, PMU staff, the FAO LTO and FLO involved as needed. It is also necessary for FAO and MMAF to reach a decision on the Standard Operating Procedure (SOP) proposed by MMAF that allows MMAF to meet its annual budget reporting and audit requirements without conflicting with FAO's own rules or creating undue additional administrative burdens on the project that could cause further implementation delays.

6.2 Strengthen project execution, management and oversight

364. **Recommendation 3 Implement at least one or two integrated wetlands management demonstration, including one in a high-conservation value inland aquatic ecosystems, such as in South Barito, to pilot strategies for multi-stakeholder engagement and bottom-up planning.** This should include developing a site-based co-management plan with local communities and government partners and other stakeholders to better manage a target inland fisheries and the surrounding habitat to increase the sustainability of the fisheries, livelihood benefits and the protection of the wider inland aquatic ecosystem and its biodiversity.

365. **Recommendation 4 Develop and implement a robust but also practical M&E system with inputs from an experienced M&E expert (as planned and budgeted in the Project Document) to strengthen adaptive results-based project management and progress reporting.** The M&E system should enable tracking of both implementation progress as well as progress towards outcomes and objectives using the revised Results Framework indicators and targets. It should also be integrated with the project learning and knowledge management systems and contribute to improved progress reporting in the PIRs and PPRs.

366. **Recommendation 5 Strengthen project delivery through improvements in quality assurance, day-to-day technical and administrative approval processes and project oversight by FAO, including the Project Task Force, and the Project Steering Committee.**

R5.1 Strengthen the quality of implementation and risk monitoring by using existing tools for adaptive results-based management, including the revised Results Framework and FAO's Environmental and Social Safeguards standards, and by supporting the PMU to improve the quality and accuracy of progress monitoring and reporting through six-monthly PPRs, annual PIRs, the GEF Tracking Tool and other types of reports and overall lessons learning and knowledge management.

R5.2 Ensure that planned international and national consultancy inputs are delivered in a timely manner so that activity implementation and output delivery are properly sequenced to improve the quality and usefulness of project results.

R5.3 Ensure regular meetings of the FAO-Project Task Force as planned in the Project Document with records of decisions taken and agreed actions for further follow and monitoring. The PTF should meet more frequently in the first 6 months while MTR recommendations are being addressed.

R5.4 Put in place clear procedures to ensure the FAO LTO is consulted by the PMU in a timely manner to be able to provide meaningful technical advice on project plans and proposed intervention strategies for the delivery of outputs as well as to review major deliverables from Service Contractors and Service Providers at early stages in order to be able improve the quality of the final product.

R5.5 Identify mechanisms and processes to reduce delays caused by the current system of technical and administrative reviews and approvals for project activities, recruitment and hiring Service Providers and Contractors. This should include an agreed process and time period for review by FAOID, the LTO, the NPC and other MMAF counterparts of consultant ToRs and Letters of Agreement (LoAs) for Service Contractors and Service Providers. FAO should establish which approval functions could be delegated to the NPM, for example, by approving budgeted quarterly workplans in advance. Subsequent the approval of smaller-scale activities and budgets could then be delegated to the NPM, with only the ToRs for larger-scale activities and budgets having to be reviewed by FAOID and the LTO.

R5.6 Strengthen staff retention in the PMU to avoid further implementation disruptions and delays by finding timely solutions to issues that affect staff morale. This includes finding ways to speed up approval processes for ToRs and LoAs to avoid long implementation delays, loss of momentum and associated negative impacts on PMU relations with government counterparts and other stakeholders. It also includes finding solutions to the challenges created by FAO rules on cash advances for project implementation, which are currently linked to project staff rather than the project as a whole. FAO should review its rules and practices on cash advances for project expenditure, particularly in the context of Covid, and ensure that all PMU staff are paid on time. FAO should also indicate clearly what grievance mechanisms are available for staff to report grievances and seek redress in case of delays in payments of salary to ensure full transparency and accountability.

R5.7 Ensure the Project Steering Committee meets every six months over the next 18 months to make sure that the no-cost extension is leading to improved project performance and results delivery by providing additional oversight and strategic guidance to the project.

367. **Recommendation 6 Ensure that relevant experts to support the PMU are hired and delayed actions and critical inputs to guide project planning and adaptive management included in the Project Document and the MTR are completed as a matter of priority.** This includes hiring an experienced gender and livelihoods expert for the PMU for a full two years and completing the socio-economic, gender and livelihoods assessments of the target fisheries in the five project demonstration sites. It also includes recruiting a short-term international M&E expert to support the development and implementation of the project M&E plan, in particular to develop SMART indicators and targets with baselines, including some biodiversity impact indicators linked to the target fisheries and related high-conservation value inland aquatic ecosystems. Priority actions include:

R6.1 Complete the socio-economic, gender and livelihoods assessments of the target fisheries in the five project demonstration sites and ensure that these are used to guide the further planning, implementation and monitoring of demonstration site activities.

R6.2 Develop the project's gender action plan.

R6.3 Develop a livelihoods improvement strategy linked to each project target fisheries.

R6.4 Develop an objective and transparent beneficiary selection protocol.

R6.5 Provide gender awareness training to all members of the PMU.

R6.6 Ensure that FAO's Social and Environmental Standards are integrated into project design and implementation, particularly in the demonstration areas, including consideration of the need for using Free, Prior Informed Consent (FPIC)

R6.7 Update the project social and environmental safeguards screening tool and ensure this is regularly monitored and updated by the PMU as part of the PIR and PPR processes.

368. **Recommendation 7 Hire a part-time Senior Technical Advisor to support the PMU with experience of capture fisheries management, EAFM and EAA, local community engagement and GEF biodiversity projects planning and management, including M&E and adaptive results-based management.** If the full set of skills and experience cannot be sourced through one individual, then ensure the project receives additional support from a consultant with extensive experience of both species conservation and integrated ecosystem/landscape-level conservation, ideally with knowledge of Indonesia's inland aquatic ecosystems and biodiversity, including critical wetland habitats such as peatlands. While such a role was not included in the original Project Document, this is still possible if a number of the short-term international consultancy positions that have been budgeted in the Project Document are revised and merged to support this new role. This should take into consideration the results of the project re-design (Recommendation 1) and the technical capacity needs of the PMU to strengthen project performance and results delivery.

369. **Recommendation 8 Strengthen the capacity of the PMU to execute and manage a GEF biodiversity mainstreaming project through additional training, structured support from FAO, including regular feedback and discussion as part of its strengthened execution, oversight and quality assurance.** Priority actions include:

R8.1 Provide additional training to the PMU on GEF policies, priorities and processes, with particular emphasis on the GEF Biodiversity Focal Area strategy and its mainstreaming biodiversity objective and clarify what this means in terms of designing, implementing and monitoring a sustainable fisheries project aimed at delivering biodiversity impact and benefits to local livelihoods.

R8.2 Translate the PIR and PPR templates into Bahasa and encourage the PMU to complete these first in Bahasa before translating into English for submission to non-Bahasa speakers in FAO and the GEF.

R8.3 Foster a culture of critical thinking, technical excellence and learning by amongst other things

a. allocating dedicated time and opportunities to strengthen these areas in each team member's individual workplan

b. putting in place mechanisms for regular cross-component/cross demonstration site learning and exchange within the PMU

c. developing the capacity of the PMU to systematically analyse and synthesise relevant information to inform project adaptive management and the further design and implementation of project activities as well as to develop knowledge products.

d. encouraging PMU member to identify and build on national and international best practice.

R8.4 Develop a user-friendly knowledge management system (KMS) that enables the PMU to systematically organize and access the varied information generated or collected by the project to date and to use it effectively for different purposes. Ensure the KMS is integrated with the project M&E system, communication strategy and stakeholder engagement strategy and that it is actually used effectively.

6.3 Strengthen impact and the sustainability of project results

370. **Recommendation 9 Develop a partnership strategy and stakeholder engagement plan to strengthen cooperation and collaboration between all major stakeholder groups relevant to the sustainable management of inland fisheries, wetlands and other inland aquatic ecosystems, and to also underpin the national and district-level multisector/multi-agency coordination mechanisms.** The strategy and plan should cover national and subnational government stakeholders, researchers, universities, technical agencies and research institutions, NGOs, local communities and other civil society members. These would also

include expanding ownership of the project beyond the fisheries sector by strengthening engagement with other key national ministries, particularly MoEF/KLHK, MoA, MoPWH, MoE and BAPPENAS, and their local government counterpart agencies (Fisheries Office, BAPPEDA, etc). Synergies and complementarities between IFish and Indonesia's programmes on climate change should also be explored. It should also involve much closer engagement with organizations with considerable experience on wetlands management and community-based natural resource management, including Wetlands International, CIFOR, and numerous local NGOs working with local communities, notably in Kalimantan. Co-financing contributions by existing and potential new partners should also be reviewed and recalculated as part of the PIR/annual reporting process. Priority actions include:

R9.1 Re-establish the national Technical Working Group (TWGs) or identify other appropriate national multisector/multiagency coordination mechanisms and specific measures to systematically strengthen cross-sector coordination and collaboration on inland aquatic ecosystems at the national level.

R9.2 Identify and implement measures to support the district TWGs to ensure these become an effective mechanism for cross-sector coordination and collaboration on inland fisheries and aquatic ecosystems at the district level. This includes ensuring that the revised ToRs for the national TWG and the ToRs for the district TWGs are clearly linked to the revised project strategy and implementation plan, the partnership strategy and stakeholder engagement plan.

R9.3 Use the national and district TWGs and other multistakeholder mechanisms to identify linkages between the project and other relevant programmes and policies, including areas of overlapping interest, as well as areas of conflict and/or sources of threats to inland aquatic ecosystems and fisheries for which solutions are needed.

371. **Recommendation 10 Develop a project communication strategy and plan linked to the project knowledge management system, partnership strategy, stakeholder engagement plan** to ensure that project lessons, policy recommendations and best practice are communicated effectively to different types of key stakeholders (from national to local decision-makers and resource users) to amongst other things convincingly demonstrate the social, economic and environmental value of protecting and sustainably managing inland fisheries and high conservation value aquatic ecosystems and to strengthen stakeholder engagement and support for the project. Communication should be adapted for different audiences with key information shared through appropriate channels in an easily understood format, using the most suitable language for the targeted audience.

372. **Recommendation 11 Develop a project exit strategy** based on a systematic assessment of socio-political, financial, institutional, governance and environmental risks to the sustainability of project results and implement appropriate measures to manage or mitigate these to the extent possible, including adapting the project design to increase the likelihood of expanding the impact and sustainability of project results.

7. Lessons learned

373. Although the project is well beyond its mid-term point, given implementation delays and slow progress, there are no major lessons arising directly from project implementation. Other lessons arising from the MTR are not new or unique, but are worth repeating as these have wide application to FAO-GEF and reinforce the findings from the MTRs and evaluations of many other GEF and other large donor-funded projects. The key lessons arising from this MTR to strengthen results delivery and long-term impacts and sustainability are as follows

374. **Quality assurance at project preparation** A complex project design with insufficient context-specific detail and explanation and a confused Results Framework (or logframe) with weak non-SMART indicators and incomplete baselines is often a major obstacle to those eventually responsible for implementing and delivering the project. Lengthy documents in English with many unexplained donor terms and concepts are a further challenge to effective understanding of the project design and GEF requirements by non-native English speakers. These factors also impact the ability of project teams and partners to communicate project objectives clearly and engage stakeholders accordingly.

375. Since the consultants leading project preparation are rarely available for consultation during implementation, greater quality assurance is needed at the project preparation phase to ensure that the proposed project design is logical and feasible and that the project document contains sufficient context-specific detail and clear guidance for project partners and the project implementation team. Where it is not possible to obtain all the required information by the time of CEO endorsement, a time-bound budgeted plan for undertaking essential work should be included and explicitly linked to the project monitoring plan.

376. **A formal well-managed project inception phase** The period from project approval by the GEF and the first 6-12 months of implementation are key to setting a project on track towards successful delivery of planned outcomes. This is the time when the original project design should be re-validated, changes in the implementation context identified and addressed, and the project Theory of Change and Results Framework revisited and updated, with indicators strengthened and confirmed and baselines either established or a clear plan developed to fill remaining gaps.

377. This is also the ideal period to create a shared understanding of the project among executing and implementing partners, project teams and other key stakeholders and to provide orientation on GEF and FAO policies and priorities. It is also the ideal moment to provide capacity development to project teams and FAO Country Offices to enable effective implementation, particularly on topics like M&E, progress reporting and adaptive results-based management, particularly to shift the emphasis from activities and outputs to the delivery of outcomes and impacts. Formal guidance on the inception phase should be provided to project partners and implementing teams. The inception phase should conclude with an Inception Report documenting the first year of implementation, any changes made

to project design, challenges that remains and other significant information. The report should be discussed and agreed by the PSC and guide further project implementation.

378. **Adequate investment in monitoring & evaluation, including progress reporting and risk monitoring** Despite the well-recognized importance of M&E for effective project implementation and results delivery, there continues to be insufficient attention to these aspects in practice by both donors and executing and implementing agencies. Donors have stringent M&E standards and requirements but fail to apply these consistently through their review processes, including at the time of project approval. Given that there is provision for M&E in the budget of all GEF projects and many even include this as a dedicated component, the question must be asked, why then do so many projects fail to implement robust M&E systems? Is it because that in practice there are few, if any, penalties for this, as even temporarily pausing projects and withholding funds is administratively and politically too difficult and only used in the worst case scenarios?

379. If penalties are not an option, then much more support and guidance as well as investment in capacity development and user-friendly mechanisms are needed from donors and GEF Implementing Agencies. Such measures are needed at both project preparation and during the inception phase to develop robust yet practical and cost-effective M&E systems that deliver the information needed to allow adaptive results-based management and to track progress towards planned outcomes and objectives. Additionally, donors need to consider how existing progress monitoring tools such PIRs and PPRs could be made both more useful and user-friendly for both project teams and partners, including how overstretched officers responsible for PIR and PPR reviews can more easily assess progress over time as well as risks and other implementation challenges.

380. In the meantime, FAO needs to consider how within its existing constraints, its own monitoring and that by project teams can be better supported and their capacity developed to improve the quality of monitoring and reporting in PIRs and PPRs and to strengthen adaptive results-based management generally. This includes identifying mechanisms to ensure that FAO's own policies are adhered to and that essential activities included in the Project Document are either implemented in a timely manner or implementation challenges flagged appropriately (e.g. through risk monitoring and use of its environmental and social safeguards framework) and a managed accordingly in a planned and systematic way. For instance, an additional monitoring template like GEF tracking tools could be required at project preparation to list all the key activities that need to be undertaken during inception together with timelines and monitoring milestones, such as conducting socio-economic, biodiversity and gender assessments, developing a gender action plan and stakeholder engagement plan, updating the Theory of Change and Results Framework and completing indicator baselines.

Annexes

The following annexes are included in a separate document.

ANNEX 1 Terms of Reference for the IFish MTR

ANNEX 2 Summary of General IFish Project Information

ANNEX 3 List of Stakeholders Interviewed

ANNEX 4A MTR Matrix of Review Questions and Sub-questions

ANNEX 4B Stakeholder Interview Questions and Interview Protocol

ANNEX 5 List of Documents Consulted

ANNEX 6 Preliminary Theory of Change for the IFish Project

ANNEX 7 MTR Review of the IFish Results Framework/Logframe

ANNEX 8 Results Matrix of Achievements at Mid-term and MTR observations

ANNEX 9 Co-financing Table

ANNEX 10 GEF Evaluation Criteria Rating Scheme

ANNEX 11 GEF Biodiversity Tracking Tool (not included- see Section 1.5.3)